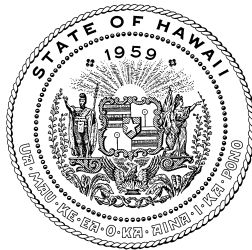


Small Business Regulatory Review Board Meeting

May 16, 2024

10:00 a.m.



SMALL BUSINESS REGULATORY REVIEW BOARD

Department of Business, Economic Development & Tourism (DBEDT)
No. 1 Capitol District Building, 250 S. Hotel Street, Fifth Floor, Honolulu, HI 96813
Mailing Address: P.O. Box 2359, Honolulu, HI 96804
Email: dbedt.sbrrb.info@hawaii.gov
Website: sbrrb.hawaii.gov

Tel: 808 798-0737

AGENDA

Thursday, May 16, 2024 ★ 10:00 a.m.

**Leiopapa A Kamehameha Building – State Office Tower
235 S. Beretania Street, Conference Room 405
Honolulu, HI 96813**

As authorized under Act 220, Session Laws of Hawaii 2021, and Section 92-3.7 Hawaii Revised Statutes (HRS), the public can participate in the meeting either:

A. By attending the in-person meeting at:

Leiopapa A Kamehameha Building – State Office Tower 235 S. Beretania Street, Conference Room 405, Honolulu, HI 96813; or

B. Via Video-audio livestream or via Telephone - to join the Video-audio livestream meeting, go to:

<https://us06web.zoom.us/j/88945374966?pwd=cDhqWEEzZGZHYmJLM05tMHU5Mm5HQ09>

C. To Join via Telephone: Dial 1-669-900-6833 with Meeting ID 883 5814 0200 Passcode 066739

When the Chairperson asks for public testimony during the meeting, you may indicate that you want to provide oral testimony by using the raise hand function or, if calling in by telephone, entering * and 9 on your phone keypad. When recognized by the Chairperson, you will be unmuted. If calling in by phone, you can unmute and mute yourself by pressing * and 6 on your keypad.

Members of the public may also submit written testimony via e-mail to:

DBEDT.sbrrb.info@hawaii.gov or mailed to SBRRB, No. 1 Capitol District Building, 250 S. Hotel Street, Room 508, Honolulu, HI 96813, or P.O. Box 2359, Honolulu, HI 96804. The Board requests that written testimony be received by Wednesday, May 15, 2024 so it may be distributed to Board members prior to the meeting. Testimony received after that time will be distributed to the Board members at the meeting.

Copies of the Board Packet will be available on-line for review at: [Agendas & Minutes – Small Business Regulatory Review Board \(hawaii.gov\)](#). An electronic draft of the minutes for this meeting will also be made available at the same location when completed.

The Board may go into Executive Session under Section 92-5 (a)(4), HRS to Consult with the Board's Attorney on Questions and Issues Concerning the Board's Powers, Duties, Immunities, Privileges and Liabilities.

I. Call to Order

II. Approval of April 18, 2024 Meeting Minutes

Josh Green, M.D.
Governor

Sylvia Luke
Lt. Governor

James Kunane
Tokioka
DBEDT Director

Dane K. Wicker
DBEDT Deputy Director

Members

Mary Albitz
Chairperson
Maui

Robert Cundiff
Vice Chairperson
O'ahu

Jonathan Shick
2nd Vice Chairperson
O'ahu

Dr. Nancy
Atmospera-Walch
O'ahu

William Lydgate
Kaua'i

James (Kimo) Lee
Hawai'i

Garth Yamanaka
Hawai'i

Sanford Morioka
O'ahu

Tessa Gomes
O'ahu

Mark Ritchie for
Director, DBEDT
Voting Ex Officio

III. New Business

- A. Discussion and Action on the Small Business Impact Statement and Proposed Amendments to Title 13 Chapter 3 **Rules Relating to Industrial Wastewater Discharge Local Limits**, promulgated by Department of Environmental Services – City and County of Honolulu – *Discussion Leader – Jonathan Shick*
- B. Discussion and Action on the Small Business Impact Statement and Proposed Amendments to Title 11 Chapter 60.1 **Air Pollution Control**, promulgated by Department of Health – *Discussion Leader – Sanford Morioka*

IV. Administrative Matters

- A. Update on the Board's Upcoming Advocacy Activities and Programs in accordance with the Board's Powers under Section 201M-5, Hawaii Revised Statutes (HRS)
 - 1. Update and Discussion on Becker Communications Inc., regarding the Board's Small Business Outreach
 - 2. Presentations to Industry Associations
 - 3. Staff's Small Business Outreach

V. Legislative Matters

- A. Discussion and Action, if necessary, on the following legislative matters:
 - 1. **House Bill 2354 HD1 SD2 CD1 - Relating to the Small Business Regulatory Review Board** – Clarifies that the Small Business Regulatory Review Board has the authority to review legislation affecting small businesses in response to a request from small business owners
 - 2. **Senate Bill 2974 SD2 HD1 CD1 – Relating to Economic Development** - Establishes a Business Revitalization Task Force within the Department of Business, Economic Development, and Tourism to identify methods to improve Hawaii's general economic competitiveness and business climate, including the mitigation of regulatory and tax burdens; requires a report to the Legislature

VI. Next Meeting: Thursday, June 20, 2024 at 10:00 a.m., held via Zoom and at Leiopapa A Kamehameha Building – State Office Tower, Conference Room 405, Honolulu, HI 96813

VII. Adjournment

If you need an auxiliary aid/service or other accommodation due to a disability, contact Jet'aime Ariola at 808 798-0737 and jetaime.k.ariola@hawaii.gov as soon as possible, preferably at least three (3) working days prior to the meeting. Requests made as early as possible have a greater likelihood of being fulfilled.

Upon request, this notice is available in alternate/accessibile formats.

II. Approval of April 18, 2024 Meeting Minutes

Small Business Regulatory Review Board

MEETING MINUTES - **DRAFT**

April 18, 2024

Zoom Meeting Recording

- I. **CALL TO ORDER:** Chair Albitz called the meeting to order at 10:00 a.m., with a quorum present.

MEMBERS PRESENT:

- Mary Albitz, Chair
- Robert Cundiff, Vice Chair
- Jonathan Shick, 2nd Vice Chair
- Dr. Nancy Atmospera-Walch
- James (Kimo) Lee
- Tessa Gomes
- Sanford Morioka
- Mark Ritchie

ABSENT MEMBERS:

- Garth Yamanaka
- William Lydgate

STAFF: DBEDT

Dori Palcovich

Jet'aime Ariola

Office of the Attorney General

Alison Kato

II. **APPROVAL OF March 28, 2024 MINUTES**

Second Vice Chair Shick motioned to accept the March 28, 2024 meeting minutes, as presented. Vice Chair Cundiff seconded the motion and the Board members unanimously agreed.

III. **NEW BUSINESS**

- A. Discussion and Action on Proposed Amendments to HAR Title 4 Chapter 71 Plant and Non-Domestic Animal Quarantine Non-Domestic Animal Import Rules, promulgated by Department of Agriculture (DOA)

Discussion leader Mr. Lee stated that these rules are before public hearing and asked Ms. Tiffany Ho from DOA to discuss the rule proposal.

Ms. Ho explained that DOA is requesting to add the insect *Aprostocetus nitens* to the DOA's List of Restricted Animals to allow its import as biocontrol of the *Erythrina* gall wasp. It was noted that there are no foreseen small business impacts and that it was a good control attempt against the invasive *Erythrina* gall wasps.

Mr. Ritchie made a motion to pass the rules onto the Governor for adoption. Second Vice Chair Shick seconded the motion, and the Board members unanimously agreed.

IV. OLD BUSINESS

- A. Discussion and Action on the Small Business Statement After Public Hearing and Proposed Amendments to HAR Title 16 Chapter 89 Nurses, promulgated by Department of Commerce and Consumer Affairs (DCCA)

Discussion leader Ms. Gomes indicated that the rules, which were mainly for adjusting temporary nursing permits, have gone to public hearing.

Ms. Lee Ann Teshima stated that there was no testimony in opposition to the rules at the hearing. However, a ten-day processing time coupled with the permanent application that was requested by some of the public hearing attendees was not approved by the Board of Nurses. This is because the application process is already streamlined as recommended; adding another 10-day period would defeat this purpose.

Second Vice Chair Shick made a motion to pass the rules onto the Governor for adoption. Ms. Gomes seconded the motion, and the Board members voted seven in favor and one recused.-

V. ADMINISTRATIVE MATTERS

- A. Update on the Board's Upcoming Advocacy Activities and Programs in accordance with the Board's Powers under Section 201M-5, Hawaii Revised Statutes (HRS)

1. Update and Discussion on Becker Communications, Inc., regarding the Board's Small Business Outreach

Representatives from Becker Communications will be taking interviews, videos, and photos of board members for social media immediately after the board meeting.

2. Presentations to Industry Associations

Nothing was reported.

3. Staff's Small Business Outreach

Staff member Ms. Ariola will be undertaking and meeting with the following agencies for small business outreach:

- Purple Maia
- Small Business Chamber of Commerce
- A.I. Conference to be held on April 24th
- Kauai Business Panel on May 31st

Ms. Ariola responded positively when asked if she was interested in presenting at various chambers of commerce that Ms. Atmospera-Walsh was affiliated with, specifically with regards to A.I. Ms. Ariola will follow up with Ms. Atmospera-Walsh.

VI. LEGISLATIVE MATTERS

A. Update, Discussion and Action, if necessary, on the following legislative matters:

1. House Bill 2354 HD1 SD1 Relating to the Small Business Regulatory Review Board – Clarifies that the Small Business Regulatory Review Board has the authority to review legislation affecting small businesses in response to a request from small business owners.

This measure is moving along to Conference Committee with both the House and Senate in agreement with the proposed changes to the statute.

2. Senate Bill 2974 SD2 HD1 Relating to Economic Development – Establishes a Business Revitalization Task Force within the Department of Business, Economic Development, and Tourism to identify methods to improve Hawaii's general economic competitiveness and business climate, including the mitigation of regulatory and tax burdens; requires a report to the Legislature.

This measure is moving along to Conference Committee however, the House and Senate are not in agreement with the proposal.

Mr. Lee noted that there are many very small businesses in Hilo and Kona concerned with and opposed to the increase in the minimum wage hike that was enacted by the State. This is because small businesses are unable to afford such increases. Ms. Atmospera-Walsh also acknowledged Mr. Lee's concerns as it applied to the medical field.

Chair Albitz explained that the minimum wage increase was passed during last year's legislative session. At that time, it was increased to \$12.00, and in the next two years it will be increased to \$14.00.

Because the increase has already been enacted, there is an uncertainty as to what, if anything, can be done to stop or intercept the upcoming wage increases. DBEDT staff will keep the Board members apprised of any updates.

Second Vice Chair Shick indicated that there is a current measure being heard in the legislature where if a family member passes away, there is a huge estate fee incurred by the family.

DBEDT staff will also keep the Board members apprised of the following measure brought forth by Second Vice Chair Shick:

- House Bill 2653 “Relating to the Estate Tax” - This measure conforms Hawaii estate tax laws to the operative provisions of the Internal Revenue Code to decrease the burden on taxpayers and increase the efficiencies in the Department of Taxation’s monitoring and auditing of estate tax returns. Establishes an estate tax deduction for the value of closely held business interests that will help ensure that locally-owned family businesses can continue to contribute to the Hawaii economy and assist families to retain the ownership interest in their family businesses.

VII. NEXT MEETING – Thursday, May 16, 2024 at 10:00 a.m., via Zoom and in conference room 405 at Leiopapa A Kamehameha Building – State Office Tower – 235 S. Beretania Street, Honolulu, HI 96813.

VIII. ADJOURNMENT – Vice Chair Cundiff motioned to adjourn the meeting and Mr. Ritchie seconded the motion; the meeting adjourned at 10:25 a.m.

III. Old Business

A. Discussion and Action on the Small Business Impact Statement and Proposed Amendments to HAR Title 13 Chapter 3 Rules Relating to Industrial Wastewater Discharge Local Limits, promulgated by Department of Environmental Services – City and County of Honolulu

**PRE-PUBLIC HEARING SMALL BUSINESS IMPACT STATEMENT
TO THE
SMALL BUSINESS REGULATORY REVIEW BOARD**
(Hawaii Revised Statutes §201M-2)

Date: _____

Department or Agency: _____

Administrative Rule Title and Chapter: _____

Chapter Name: _____

Contact Person/Title: _____

E-mail: _____ Phone: _____

A. To assist the SBRRB in complying with the meeting notice requirement in HRS §92-7, please attach a statement of the topic of the proposed rules or a general description of the subjects involved.

B. Are the draft rules available for viewing in person and on the Lieutenant Governor's Website pursuant to HRS §92-7?

☐

Yes

☐

No

If "Yes," provide details: _____

I. Rule Description:

☐

New

☐

Repeal

☐

Amendment

☐

Compilation

II. Will the proposed rule(s) affect small business?

☐

Yes

☐

No

(If "No," no need to submit this form.)

* "Affect small business" is defined as "any potential or actual requirement imposed upon a small business . . . that will cause a direct and significant economic burden upon a small business, or is directly related to the formation, operation, or expansion of a small business." HRS §201M-1

* "Small business" is defined as a "for-profit corporation, limited liability company, partnership, limited partnership, sole proprietorship, or other legal entity that: (1) Is domiciled and authorized to do business in Hawaii; (2) Is independently owned and operated; and (3) Employs fewer than one hundred full-time or part-time employees in Hawaii." HRS §201M-1

III. Is the proposed rule being adopted to implement a statute or ordinance that does not require the agency to interpret or describe the requirements of the statute or ordinance?

☐

Yes

☐

No

(If "Yes" no need to submit this form. E.g., a federally-mandated regulation that does not afford the agency the discretion to consider less restrictive alternatives. HRS §201M-2(d))

IV. Is the proposed rule being adopted pursuant to emergency rulemaking? (HRS §201M-2(a))

☐

Yes

☐

No

(If "Yes" no need to submit this form.)

*

*

*

If the proposed rule affects small business and are not exempt as noted above, please provide a reasonable determination of the following:

1. Description of the small businesses that will be required to comply with the proposed rules and how they may be adversely affected.

2. In dollar amounts, the increase in the level of direct costs such as fees or fines, and indirect costs such as reporting, recordkeeping, equipment, construction, labor, professional services, revenue loss, or other costs associated with compliance.

If the proposed rule imposes a new or increased fee or fine:

- a. Amount of the current fee or fine and the last time it was increased.

 - b. Amount of the proposed fee or fine and the percentage increase.

 - c. Reason for the new or increased fee or fine.

 - d. Criteria or methodology used to determine the amount of the fee or fine (i.e., Consumer Price Index, Inflation rate, etc.).
-
-
-
-
-
-
-
-
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-
3. The probable monetary costs and benefits to the agency or other agencies directly affected, including the estimated total amount the agency expects to collect from any additionally imposed fees and the manner in which the moneys will be used.

4. The methods the agency considered or used to reduce the impact on small business such as consolidation, simplification, differing compliance or reporting requirements, less stringent deadlines, modification of the fines schedule, performance rather than design standards, exemption, or other mitigating techniques.
5. The availability and practicability of less restrictive alternatives that could be implemented in lieu of the proposed rules.
6. Consideration of creative, innovative, or flexible methods of compliance for small businesses. The businesses that will be directly affected by, bear the costs of, or directly benefit from the proposed rules.
7. How the agency involved small business in the development of the proposed rules.
 - a. If there were any recommendations made by small business, were the recommendations incorporated into the proposed rule? If yes, explain. If no, why not.

8. Whether the proposed rules include provisions that are more stringent than those mandated by any comparable or related federal, state, or county standards, with an explanation of the reason for imposing the more stringent standard.

If yes, please provide information comparing the costs and benefits of the proposed rules to the costs and benefits of the comparable federal, state, or county law, including the following:

- a. Description of the public purposes to be served by the proposed rule.
- b. The text of the related federal, state, or county law, including information about the purposes and applicability of the law.
- c. A comparison between the proposed rule and the related federal, state, or county law, including a comparison of their purposes, application, and administration.
- d. A comparison of the monetary costs and benefits of the proposed rule with the costs and benefits of imposing or deferring to the related federal, state, or county law, as well as a description of the manner in which any additional fees from the proposed rule will be used.
- e. A comparison of the adverse effects on small business imposed by the proposed rule with the adverse effects of the related federal, state, or county law.

* * *

Small Business Regulatory Review Board / DBEDT
Phone: (808) 586-2594 / Email: DBEDT.sbrrb.info@hawaii.gov

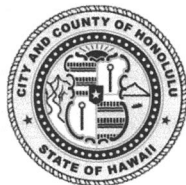
This Statement may be found on the SBRRB Website at: <http://dbedt.hawaii.gov/sbrrb/resources/small-business-impact-statements>

**DEPARTMENT OF ENVIRONMENTAL SERVICES
KA 'OIHANA LAWELawe KAIĀPUNI
CITY AND COUNTY OF HONOLULU**

1000 ULU'ŌHI'A STREET, SUITE 308 • KAPOLEI, HAWAII 96707
PHONE: (808) 768-3486 • FAX: (808) 768-3487 • WEBSITE: honolulu.gov

RECEIVED
By SBRRB at 9:19 am, May 08, 2024

RICK BLANGIARDI
MAYOR
MEIA



ROGER BABCOCK, JR., Ph.D., P.E.
DIRECTOR
PO'O

MICHAEL O'KEEFE
DEPUTY DIRECTOR
HOPE PO'O

IN REPLY REFER TO:
ERC 24-071

SENT VIA EMAIL
DBEDT.sbrrb.info@hawaii.gov

May 8, 2024

Small Business Regulatory Review Board (SBRRB)
c/o DBEDT
P.O. Box 2359
Honolulu, Hawaii 96804

Dear SBRRB:

SUBJECT: 2024 Pre-Public Hearing Small Business Impact Statement for the
City and County of Honolulu Proposed Rules Relating to Industrial
Wastewater Discharge Local Limits

In accordance with Hawai'i Revised Statutes Chapter 201M-2, the City and
County of Honolulu Department of Environmental Services submits the attached Pre-
Public Hearing Small Business Impact Statement, Small Business Impact Statement,
and Proposed Rules Relating to Industrial Wastewater Discharge Local Limits for review
of the proposed rules.

Should you have any questions, please contact Josh Nagashima, of our Division
of Environmental Quality at (808) 768-3430.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger Babcock Jr.", is written over the typed name.

Roger Babcock, Jr., Ph.D., P.E.
Director

Attachment: Pre-Public Hearing Small Business Impact Statement
Small Business Impact Statement
Proposed Rules Relating to Industrial Wastewater Discharge Local Limit

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1 Introduction:

This comprehensive small business impact statement has been prepared by the City and County of Honolulu (City) in accordance with Hawai'i Revised Statutes (HRS) § 201M-2. The purpose of this statement is to present the impact of proposed rules imposing limits on pollutants discharged into the City's wastewater system, referred to by the United States Environmental Protection Agency (EPA) as "local limits", on small businesses within the Sand Island Wastewater Treatment Plant (SIWWTP) service area. This statement will provide a brief explanation of the local limits development process and an analysis of the potential effects, costs, and benefits associated with the proposed rules, given that the City has some flexibility to adjust the limits of individual businesses. Only small businesses within the SIWWTP service area are considered because these local limits would only apply to industrial users (IUs) in the SIWWTP service area.

1.1 Local Limits Statutory Authority:

The City is required to evaluate and implement any necessary local limits pursuant to its SIWWTP National Pollutant Discharge Elimination System (NPDES) Permit No. HI0020117, Part G.4. The SIWWTP NPDES Permit is issued by the State of Hawai'i, Department of Health (DOH), as authorized by the EPA National Pretreatment Program established in the Clean Water Act's NPDES Permit Program. The SIWWTP NPDES Permit requires the City to implement a pretreatment program in accordance with the Code of Federal Regulations, Title 40 (40 CFR) Part 403.8. As part of the pretreatment program, the City is required to develop and enforce appropriate local limits to prevent Pass Through and/or Interference at SIWWTP (40 CFR Part 403.5(c)). The precept of local limits has already been established in the Revised Ordinances of Honolulu Chapter 43 in Section §43-5.1(a); however, specific numerical limits identified in this statement are intended to be adopted into the City's Department of Environmental Services (ENV) Administrative Rules.

1.2 Local Limits Development through Technical Evaluation:

In order to develop the local limits, the City conducted a technical evaluation as guided by EPA's Local Limits Development Guidance (EPA, 2004), involving the following steps:

1. Review of the SIWWTP characteristics
2. Determination of significant industrial users (SIUs), hauled waste, uncontrolled source, and SIWWTP flows
3. Determine the pollutants of concern (POCs)¹
4. Develop and conduct local limits sampling
5. Analyze collected local limits sampling data
6. Calculate maximum allowable headwork loadings (MAHLs)² for each POC
7. Calculation of maximum allowable industrial loadings (MAIL)⁴
8. Calculation of concentration-based uniform local limits
9. Designation of local limits

¹ A POC is any pollutant that might reasonably be expected to be discharged to the POTW in sufficient amounts to pass through or interfere with the works, contaminate its sludge, cause problems in its collection system, or jeopardize its workers.

² A MAHL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks without causing pass through or interference. It is the most protective (lowest) of allowable headworks loading (AHL)³ estimated for an individual pollutant.

³ An AHL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks that should not cause a POTW to violate a particular treatment plant or environmental criterion. AHLs are developed to prevent interference or pass through.

⁴ A MAIL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted industrial users and other controlled sources without causing pass through or interference.

In summary, the evaluation identifies the pollutant treatment capacity of the SIWWTP and allocates that capacity as a set of limits for SIUs as necessary, while also considering the number of SIUs within the SIWWTP treatment area, sampling data from those SIUs, and different methods for allocation recommended by EPA.

Through this technical evaluation, it was determined that local limits were required to prohibit SIUs from discharging to SIWWTP any pollutants in excess of the limits as shown in Table 1 below.

Table 1. Sand Island Wastewater Treatment Plant Local Limits

<u>Pollutant</u>	<u>Concentration Limit (mg/L)</u>	<u>Mass-Based Limit (lbs/day)</u>
Zinc	N/A	12.73
Biochemical Oxygen Demand (BOD ₅)	5,696	29,566
Total Petroleum Hydrocarbons (TPH)	100	29,950

The DOH approved the City's local limits technical evaluation on December 11, 2023 via DOH Letter 12008EJT.23, Attachment C of this report. The full technical evaluation of the local limits report is available for review as Attachment A.

1.3 [Local Limits Implementation:](#)

The SIWWTP NPDES Permit Part G.4.c allows the City flexibility in the selection of allocation strategy for establishing the local limits determined through the technical evaluation. The local limits determined by the City may be established based on one or more or a combination of the following EPA recommended limit calculation methodologies:

- Uniform concentration allocation of the maximum allowable industrial loading (MAIL) applied to all SIUs,

- SIU contributory flow allocation of the MAIL provided individually to each SIU,
- SIU mass proportional loading allocation of the MAIL provided individually to each SIU,
- Mass proportional loading allocation of the MAIL based on SIU effluent concentration, provided individually to the SIU,
- Domestic background allocation of the MAIL to be distributed uniformly to all SIUs when no sampling data is available for the SIU, or when one or more SIUs discharge the pollutant below domestic background levels (where appropriate).
- Case by case basis, based on SIU needs for discharge loading.

Upon evaluation of the Zinc, BOD₅, and TPH concentrations currently being discharged by SIUs, as well as the variability of pollutant concentrations between SIUs, the mass proportion allocation method was determined to be the most appropriate method. This method allows for the establishment of a concentration-based limit or a mass-based limit for the SIUs and for including the calculated limit in the Industrial Wastewater Discharge Permit (IWDP). The use of a mass proportion allocation limitation is an effective implementation strategy that provides adequate protection to the WWTP, as well as minimizes impact on SIUs that discharge the pollutant at concentrations over the established uniform concentration local limit.

The allocation of pollutant loading based on the proposed rule is intended to be implemented in a fair and sensible way that does not favor any one industry or group of industries, considers the economic impacts, maintains compliance with the NPDES permit, and otherwise achieves the environmental goals of the program.

The assessment conducted by the City confirms that the proposed rules, specifically the revised local limits allocation method, have a direct impact on small businesses operating within the City's jurisdiction. This evaluation is submitted in accordance with HRS § 201M-2 and assesses the availability and practicability of less restrictive and less burdensome alternatives that could be implemented.

The local limits will be adopted into the ENV Administrative Rules following the determination of small business impact.

2 Businesses That Will Be Directly Affected by, Bear the Costs of, or Directly Benefit From the Proposed Rules:

The proposed rules will only have a direct effect on those businesses that discharge wastewater within the SIWWTP service area and which are considered SIUs as defined by Chapter 43 of the Revised Ordinances of Honolulu, 2021 (ROH).

SIUs are defined as industrial users that:

- A. Discharge an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater);
- B. Contribute to a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; and

- C. Are designated as such by the City on the basis that the IU has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

Additionally, some SIUs may more specifically be considered Categorical Industrial Users (CIUs), which are IUs subject to categorical pretreatment standards under the 40 CFR Part 403.6 and 40 CFR Chapter I, Subchapter N based on the type of industry undertaken.

2.1 Description of the Small Businesses That Will Be Required to Comply with the Proposed Rules and How they May Be Adversely Affected:

Currently there are 10 permitted SIUs within the SIWWTP service area that may be adversely affected by the implementation of the proposed local limits. The following types of businesses are currently permitted as SIUs with the City in the SIWWTP tributary, and will be required to immediately comply with the new limits.

- Power laundry
- Beverage and juice manufacturer
- Biodiesel manufacturer
- Centralized waste treatment facility
- Aquarium
- Passenger car rental facility

Based on the City's survey, no other businesses are likely to be impacted at this time. However, this determination is subject to changes to federal pretreatment regulations; State law; or any future surveys by the City.

Potential adverse impacts to the SIUs may include additional monitoring and sampling of the pollutants. Currently all SIUs conduct self-monitoring sampling and analysis for BOD₅. Of the permitted SIUs, two (2) currently monitor and sample for TPH. All SIUs except for one (1) monitor and sample for Zinc.

2.2 In Dollar Amounts, the Increase in the Level of Direct Costs Such as Fees or Fines, and Indirect Costs Such as Reporting, Recordkeeping, Equipment, Construction, Labor, Professional Services, Revenue Loss, or Other Costs Associated with Compliance:

The local limits rules will require the SIUs to monitor and sample for Zinc, BOD₅ and TPH. The general costs of sampling for these parameters based on local laboratory fees are \$105 for Zinc, \$90 for BOD₅, and \$125 for TPH. Sampling for these parameters are typically required either monthly or quarterly as specified in the IWDP for each SIU. There are no other anticipated indirect costs to the SIUs reporting, recordkeeping, equipment, construction, labor, professional services, nor other costs associated with compliance since all SIUs currently conduct self-monitoring sampling and analysis as required by their IWDPs.

If an SIU consistently exceeds the established concentration local limits or maximum mass-based allocation limits that the City can be accommodated for the SIU, additional equipment upgrade

costs could be incurred. During the local limits sampling process of the SIUs, all SIUs were well within the anticipated pounds per day allocation that are being adopted. The current BOD total loading for SIUs evaluated during the evaluation period totaled 3,466 lbs. which is only 11.7% of the MAIL available for allocation. Should an SIU's condition change, the total costs for equipment upgrades to meet the established limits will depend upon the chemicals used within the SIUs processes and existing equipment at the facility.

There may be direct cost increases for the affected small businesses due to fines associated with noncompliance related to the revised discharge limits. The City is authorized to assess administrative or civil penalties against IUs in violation of the pretreatment standards, including local limits in accordance with ROH 43-5.19. Fine amounts range from \$1,000 to \$25,000 per violation per day depending on factors such as severity of the violation, effects of the violation to the receiving waters or the POTW, compliance history of the IU, economic benefits to the user, and good-faith efforts of the user. The cost impacts due to fines would be strictly dependent on the compliance performance of the IUs, as the City typically assesses fines for escalated enforcement in the infrequent scenarios where IUs are in repeated violation or the violation has major potential for harm.

2.3 [The Probable Monetary Costs and Benefits to the Implementing Agency and Other Agencies Directly Affected, Including the Estimated Total Amount the Agency Expects to Collect From Any Additionally Imposed Fees and the Manner in Which the Moneys Will Be Used:](#)

The City is not requiring any permitting fees, or ongoing program related fees, in relation to these local limits rules. Therefore, there will be no probable monetary costs or benefits to the City.

2.4 [Methods the City Considered or Used to Reduce the Impact on Small Businesses Such as Consolidation, Simplification, Differing Compliance or Reporting Requirements, Less Stringent Deadlines, Modification of the Fines Schedule, Performance Rather than Design Standards, Exemption, or Any Other Mitigating Techniques:](#)

The City considered all allocation methods recommended by EPA and determined that the use of the mass proportion allocation method to be the most appropriate method for the establishment of a concentration-based limit or a mass-based limit for the SIUs, and for including the calculated limit in the IWDP. The use of a mass proportion allocation limitation is an effective implementation strategy that provides adequate protection to the WWTP, as well as minimizes impact on SIUs that discharge the pollutant at concentrations over the established uniform concentration local limit.

2.5 [How the Agency Involved Small Business in the Development of the Proposed Rules:](#)

The City recognizes the importance of involving small businesses in the development of the proposed rules, particularly SIUs affected by revised local limits. The permitted SIUs were included in the initial sampling study, which included the City discussing its intent to evaluate and implement revisions to their IWDPs related to local limits and allowed the SIUs to provide feedback.

Through continuous engagements with the SIUs, the City has fostered a transparent and inclusive rulemaking process, enabling small businesses to actively participate in the decision-making and contribute to the development of practical and effective compliance measures.

3 Whether the Proposed Rules Include Provisions that are More Stringent than those Mandated by Any Comparable or Related Federal, State, or County Standards, with an Explanation of the Reason for Imposing the More Stringent Standard:

As required by HRS §201M-2(b)(7), following a comprehensive analysis, the City confirmed that the revised local limits do not impose more stringent standards compared to existing regulations.

4 Conclusion:

Based on the City's evaluation, the City seeks to adopt the proposed numerical local limits in the ENV Administrative Rules pursuant to the SIWWTP NPDES Permit through the rulemaking process.

The City believes that this comprehensive impact statement for small businesses accurately reflects the City's commitment to balancing environmental protection with the needs of its small businesses. The City remains open to further dialogue, feedback, and collaborative efforts to ensure the successful implementation of the revised local limits.

5 Attachments:

- A. Local Limit Evaluation Report
- B. List of Potentially Impacted Businesses
- C. DOH Approval Documentation

ATTACHMENT A.
Local Limit Evaluation Report

Technical Evaluation of Local Limits

for

Sand Island Wastewater Treatment Plant

FINAL REPORT

Prepared for:



Prepared by:

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May 1, 2022

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Glossary of Terms

Allowable Headworks Loading (AHL). The estimated maximum loading of a pollutant that can be received at a wastewater treatment plant's headworks that should not cause a treatment plant to violate a particular plant or environmental criterion. AHLs are developed to prevent interference with the treatment processes and pass-through and to ensure treatment plant compliance with facility permit and applicable discharge requirements, as well as to support current biosolids and reclaimed water uses.

Biochemical Oxygen Demand (BOD₅). The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20 degrees centigrade.

Categorical Pretreatment Standards. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Clean Water Act, that apply to specified process wastewaters of industrial categories [40 CFR Part 403, Section 403.6 and 40 CFR Parts 405-471].

City. City and County of Honolulu

Clean Water Act (Act). The primary federal law in the United States governing water pollution and establishing the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the Act was enacted in 1948 under the "Federal Water Pollution Control Act", but the Act was significantly reorganized and expanded in 1972, under the title "Clean Water Act".

Code of Federal Regulations (CFR). The official and complete text of agency regulations in an organized fashion in a single publication. The CFR is updated by amendments appearing in the daily Federal Register. Used together, these two publications establish the latest version of any given rule.

Conservative Pollutants. Pollutants that are presumed not to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW. Conservative pollutants introduced to a POTW ultimately exit the POTW solely through the POTW's effluent and biosolids.

Headworks. The point at which wastewater enters a POTW.

Industrial Wastewater Discharge (IWD) Permit. The document issued by the department to Industrial Users, authorizing discharge of industrial waste, unless otherwise indicated.

Industrial User (IU). Non-domestic source of pollutants to a POTW regulated under Section 307(b), (c) or (d) of the Clean Water Act.

Inhibition. Inhibition occurs when pollutant levels in a POTW's wastewater or biosolids cause operational problems for biological treatment processes involving secondary or tertiary wastewater treatment and alter the POTW's ability to adequately remove BOD₅, TSS, and other pollutants.

Interference. A discharge that, alone or with discharges from other sources, inhibits or disrupts a POTW, its treatment processes and operations, or its biosolids processes, use, or disposal and, therefore, causes a violation of the POTW's NPDES permit, increases the magnitude or duration of such a violation, or prevents the proper use or disposal of biosolids in compliance with the Clean Water Act, Solid Waste Disposal Act, Toxic Substances Control Act, or the Marine Protection, Research, and Sanctuaries Act.

Local Limit. A technically based discharge limit developed by the POTW pursuant to 40 CFR Section 403.5.

Maximum Allowable Headworks Loading (MAHL). The estimated maximum loading of a pollutant that can be received at a POTW's headworks without causing pass-through or interference. The most protective (lowest) of the AHLs estimated for a pollutant.

Maximum Allowable Industrial Loading (MAIL). The estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted industrial users and other controlled sources without causing pass through or interference.

Method Detection Limit (MDL). The minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is present as determined by a specific laboratory method in 40 CFR Part 136, Appendix B.

Minimum Level of Quantitation (ML). The Method Level of Quantitation (ML, or EPA ML) is the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed, and is to be calculated by multiplying the MDL by 3.18, as specified in the EPA Local Limits Development Guidance Manual Section 5.1.3.

National Pollutant Discharge Elimination System (NPDES). The permitting system established by the Clean Water Act, which regulates the discharge of pollutants into the waters of the United States. Such a discharge is prohibited unless a NPDES permit is issued by EPA or, where authorized, a State; or a Native American tribal government.

Non-conservative Pollutants. Pollutants that are presumed to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW to some degree.

Pass Through or Pass-Through. A discharge that enters the waters of the United States from a POTW in quantities or concentrations that, alone or with discharges from other sources, either causes a violation of any requirement of the POTW's NPDES permit or increases the magnitude or duration of a violation of the POTW's NPDES permit.

Pollutant of Concern (POC). Any pollutant that might reasonably be expected to be discharged to the POTW in sufficient amounts to pass through or interfere with the works, cause problems in its collection system, inhibit its ability to reclaim and/or reuse biosolids and wastewater, cause an exceedance of any limiting environmental criteria, or jeopardize its workers.

Pretreatment. As defined in 40 CFR 403.3, "pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW.

Pretreatment Annual Assessment Report (PAAR). The annual report prepared and submitted to the Hawaii Department of Health (DOH) by the City and County of Honolulu summarizing the status of current Pretreatment Program and regulated IUs, pursuant to the requirements specified in the WWTP's NPDES permit.

Publicly Owned Treatment Works (POTW). A treatment works, as defined by Section 212 of the CWA, that is owned by the State or municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature.

It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant [40 CFR 403.3]. Privately owned treatment works, federally owned treatment works, and other treatment plants not owned by municipalities are not considered POTWs.

Reasonable Potential Analysis (RPA). The process for determining whether a discharge causes, has reasonable potential to cause, or contributes to an excursion above the water quality criteria for toxic pollutants.

Reporting Limit (RL). The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory analysis.

Revised Ordinances of Honolulu (ROH). The code, or set of laws, for the City and County of Honolulu officially named the Revised Ordinances of Honolulu 1990, or as amended.

Wastewater Treatment Plant (WWTP). Sand Island Wastewater Treatment Plant.

ES EXECUTIVE SUMMARY

EEC Environmental (EEC) was retained by the City and County of Honolulu (City) to conduct a technically based evaluation of the local limits for the Sand Island Wastewater Treatment Plant (WWTP). The National Pollutant Discharge Elimination System (NPDES) permit for the WWTP was renewed effective 05/01/2021 which triggered a technically based evaluation of local limits.

Pursuant to Part G.4.c of the NPDES permit⁽¹⁾, the City is required to perform a technically based evaluation of local limits and promulgate any necessary local limits as applicable pretreatment requirements, in accordance with 40 CFR 125.65. This evaluation will review the need to develop local limits for the WWTP. Local limits are site-specific and will require a complete evaluation for the WWTP.

A technically based determination of numerical local limits provides protection of the collection system, wastewater treatment facilities and the public through the development and adoption of local limits by administrative rule. The local limits determination process itself involves determinations of the wastewater or biosolids quality and flow at various points into, within, and from the collection system and treatment plants in order to calculate maximum allowable headworks loadings (MAHLs) for the pollutants of concern (POCs), followed by allocation of the loadings to significant industrial users (SIUs) that have received industrial wastewater discharge (IWD) permits under the City's Industrial Pretreatment Program. The MAHLs change with changes in the NPDES permit discharge requirements, treatment plant performance, and modifications to the treatment facilities. The method of allocation of local limits to the SIUs can be concentration-based, mass-based or a combination of both.

The United States Environmental Protection Agency (EPA) Local Limits Development Guidance (EPA (2004), *Local Limits Development Guidance Document* (833-R-04-002A)⁽²⁾. Office of Wastewater Management) includes provisions for developing any needed local limits when the justification is technically based. The guidance document and its associated appendices are referenced throughout the local limits evaluation process for developing any needed local limits as pretreatment requirements. As part of the development of local limits, a Plan of Study (POS or Study) including a Sampling Plan were developed and implemented to aid in identifying POCs, characterizing industrial, commercial, and residential loadings to WWTP, and establishing analytical and sampling requirements to provide technically defensible limits.

The development of the local limits evaluation included the following steps:

1. Review of the WWTP characteristics
2. Determination of SIU, hauled waste, uncontrolled source, and WWTP flows
3. Determination of POCs
4. Development of a POS and Sampling Plan
5. Conducting local limits sampling
6. Review of collected local limits sampling data
7. Calculation of MAHLs
8. Calculation of maximum allowable industrial loadings (MAIL)
9. Calculation of concentration-based uniform local limits
10. Designation and implementation of local limits

The Study documented a review of available data and permit requirements in order to identify POCs to include in the local limits evaluation. Following the identification of POCs, appropriate sample locations

and methods were recommended in a Sampling Plan specifying the required sampling activities. Analytical methods, with method detection limits, were also specified to ensure the adequacy of the data generated for calculating pollutant removal efficiencies.

In accordance with Section 4.3 of the EPA Development Guidance Manual, the Study identified 20 POCs requiring sampling for further evaluation. Sampling activities were performed during the wet weather season between February 18 and February 27 of 2021 and during the dry weather season between June 9 and June 19 of 2021. Table ES-1, *Sand Island Final Pollutants of Concern*, lists the 20 POCs that were evaluated and the basis for the determination.

Table ES-1: Sand Island Final Pollutants of Concern

Pollutant		BASIS
1	Ammonia-N	EPA POC
2	Arsenic	EPA POC
3	BOD ₅	EPA POC/Permit Limit/Existing
4	Cadmium	EPA POC
5	Chlordane	Requested POC
6	Chromium	EPA POC
7	Copper	EPA POC
8	Cyanide, Total	EPA POC
9	Dieldrin	Requested POC
10	HEM (SGT and Non-SGT)	EPA POC
11	Lead	EPA POC
12	MBAS	TIE/TRE Review
13	Mercury	EPA POC
14	Molybdenum	EPA POC
15	Nickel	EPA POC
16	PFAS	Requested POC
17	Selenium	EPA POC
18	Silver	EPA POC
19	Total Suspended Solids	EPA POC/Permit Limit/Existing
20	Zinc	EPA POC / Existing
EPA POC = EPA Local Limits Guidance Manual National POCs Permit Limit = Pollutant limit listed in WWTP's NPDES Permit Existing = Proposed Local Limit from the 2019 evaluation TIE/TRE Review = POC identified upon review of Whole Effluent Toxicity (WET) Reports		

ES.1 PROPOSED MAHLS

The local limits evaluation compared the current WWTP influent loadings to the calculated MAHLS to determine if the 2019 local limits, which have been preliminarily approved by DOH and EPA, for 5-Day Biological Oxygen Demand (BOD₅), Total Suspended Solids (TSS) and Zinc are sufficiently protective,

technically defensible, and/or still required. The evaluation also assessed the need to establish local limits for other POCs identified in the Study.

In summary, the MAHLs for BOD₅, TSS and Zinc were significantly higher than those calculated in 2019. This is due, largely, to the use of WWTP average flow rate and average concentrations, whereas, in 2019, WWTP design flow rate and maximum concentrations were used.

For Zinc, the MAHL and MAIL values were significantly lower than those calculated in 2019. This is due to the use of updated sampling data obtained over the February 2015 through February 2021 period and actual 2020 sludge production values that are more representative of site conditions. In 2019, monthly sludge production values corresponding to the months during which sludge samples were collected, were used.

For Total Petroleum Hydrocarbon (TPH), a local limit of 100 mg/L corresponding to a MAIL of 29,950 lbs./day would provide protection to the WWTP against petroleum hydrocarbons-sourced process inhibition. Additionally, with the exception of BOD₅, TSS, and Zinc, the WWTP average influent percent (%) loading, for all parameters, was below the recommended values requiring local limits per the EPA Local Limits Development Guidance Manual Section 6.1.

A summary of the local limit findings for BOD₅, TPH, TSS and Zinc are discussed further, below.

For BOD₅, the applicable local limit development criterion is the WWTP NPDES permit effluent criterion. Given the use of current local limits sampling average BOD₅ values and average WWTP flows, the average WWTP influent BOD₅ loading is 67.1% of the MAHL and it exceeds the 60% MAHL local limit development threshold criteria per the EPA Local Limits Development Guidance Manual Section 6.1.1. The City is currently in the process of adopting the 2019 proposed BOD₅ uniform local limit of 1,449 mg/L. The 2022 local limits evaluation resulted in a BOD₅ uniform local limit of 5,696 mg/L and a BOD₅ MAIL of 29,566 lbs./day for the WWTP. Therefore, considering current local limits sampling BOD₅ concentrations and flows, as well as updated MAHLs and MAILs, there is a technically-based justification to increase the 2019 proposed BOD₅ uniform concentration local limit from 1,449 mg/L to 5,696 mg/L, and establish a BOD₅ MAIL of 29,566 lbs./day, to provide flexibility in imposing a limit on the SIUs and to minimize the impact on the current SIUs without causing harm to the WWTP or affecting its compliance status.

For TPH specifically, the April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*⁽³⁾, provides the basis for establishing a 100 mg/L TPH local limit. There are several regulatory references that also support establishing a TPH local limit to mitigate petroleum hydrocarbons-sourced pollutant passthrough and interference protection to the WWTP. Among the publications, the pretreatment regulations⁽⁴⁾ 40 CFR 403.5(b)(6), and 40 CFR Part 403.5(b)(3), as well as, ROH Chapter 14, Article 5⁽⁵⁾, Section 14-1.9(g)(19) support the establishment of a 100 mg/L TPH uniform concentration local limit, whereas the influent process inhibition criterion supports the establishment of a 29,950 lbs./day MAIL for TPH.

All nine SIUs evaluated during this local limits evaluation discharge TPH to the WWTP at levels below both the EPA ML and the 100 mg/L TPH limitation. Therefore, and considering that a 100 mg/L TPH local limit is an achievable limit for all SIUs to comply with utilizing generally available wastewater treatment processes, a 100 mg/L local limit for TPH, and a 29,950 lbs./day MAIL for TPH is proposed. Establishing both, a uniform local limit for TPH and a MAIL for TPH, will provide the City with the flexibility to either include the uniform local limit or an allocation-based limit for TPH in SIU IWD Permits.

For TSS, the applicable local limit development criterion is the WWTP NPDES permit effluent criterion. Given the use of current 2021 local limits sampling calculated average TSS values and average WWTP flows, the average WWTP influent TSS loading is 64.6% of the MAHL and it exceeds the 60% MAHL local limit development threshold criteria per the EPA Local Limits Development Guidance Manual Section 6.1.1. The City is currently in the process of adopting the 2019 proposed TSS uniform local limit of 488 mg/L. The 2022 local limits evaluation resulted in a TSS uniform local limit of 7,929 mg/L for the WWTP. However, considering current SIUs contribute TSS at only 0.35% of the current calculated MAHL (average basis), and historic SIU TSS discharges were well below the current calculated TSS uniform concentration local limit of 7,929 mg/L, there is no practical need to control TSS in SIU discharges, and no TSS local limit is proposed at this time.

For Zinc, the limiting MAHL criterion is the WWTP NPDES permit biosolids criterion. Given the WWTP sampling data and WWTP flows, the average influent Zinc loading is 66.2% of the MAHL and it exceeds the 60% MAHL local limit development threshold criteria per the EPA Local Limits Development Guidance Manual Section 6.1.1. The City is currently in the process of adopting a Zinc MAIL of 24.09 lbs./day for the WWTP, based on the 2019 local limits evaluation. However, considering current local limits sampling concentrations and flows, as well as updated MAHL and MAIL values, there is a technically-based justification to decrease the 2019 proposed Zinc MAIL limitation from 24.09 lbs./day to 12.73 lbs./day. The proposed 12.73 lbs./day MAIL limit will provide flexibility in imposing general or individual limits on the SIUs and will minimize the impact on the SIUs currently discharging Zinc without causing harm to the WWTP or affecting its compliance status.

Table ES-2, *Maximum Allowable Headworks Loadings*, lists the calculated Maximum Allowable Headworks Loadings for the WWTP. The MAIL is provided for reference only. In accordance with Section 6.4 of the EPA Local Limits Development Guidance Manual, the City reserves the right to use the MAIL, in pounds per day, to allocate the permitted pollutant limits for individual dischargers if the MAHLs are not exceeded for the WWTP.

Table ES-2: Maximum Allowable Headworks Loadings

Pollutant	MAHL (Lbs./Day)	MAIL (Lbs./Day)	MAHL Criterion
Arsenic	1.61	0.89	Biosolids
5-day Biological Oxygen Demand (BOD ₅)	94,013	29,566	Effluent
Cadmium	1.13	0.87	Biosolids
Chromium	5.34	2.65	Biosolids
Copper	25.77	14.11	Effluent
Cyanide, Total	49.87	38.81	Effluent
Lead	7.12	6.02	Biosolids
Mercury	0.19	0.15	Biosolids
Molybdenum	2.66	1.58	Biosolids
Nickel	23.2	19.16	Biosolids
Nitrogen, Ammonia	748,098	665,409	Influent Inhibition
Oil and Grease	No Basis	No Basis	No Basis

PFOA	1.98	1.78	Effluent
PFOS	1.54	1.39	Effluent
Selenium	1.87	1.26	Biosolids
Silver	114.7	103.0	Effluent
Surfactants	No Basis	No Basis	No Basis
TPH	37,405	29,950	Influent Inhibition
TSS	99,655	41,155	Effluent
Zinc	55.28	12.73	Biosolids

Key: MAIL = MAHL – [Safety Factor loading allocation – Growth Allowance Factor loading allocation (which applies to WWTP Design Criteria POCs, namely; BOD₅ and TSS) – Uncontrollable Loading – Hauled Waste Loading] lbs.

1.0 INTRODUCTION

EEC Environmental (EEC) was retained by the City and County of Honolulu (City) to conduct a technically based evaluation of the local limits for the Sand Island Wastewater Treatment Plant (WWTP). The National Pollutant Discharge Elimination System (NPDES) permit, (permit # HI0020117) for the WWTP was renewed effective 05/01/2021 which triggered a technically based evaluation of local limits.

Pursuant to Part G.4.c of the permit, the City is required to evaluate local limits and develop any needed local limits as applicable pretreatment requirements, in accordance with 40 CFR 125.65⁽⁶⁾. This evaluation consists of a review of the need to develop local limits for the WWTP.

A technically based determination of numerical local limits provides protection of the collection system, wastewater treatment facilities and the public through the development and adoption of local limits by administrative rule. The local limits determination process itself involves determinations of the wastewater or biosolids quality and flow at various points into, within, and from the collection system and treatment plant in order to calculate MAHLs for POCs, followed by allocation of the loadings to the industrial users (IUs). The MAHLs change with changes in the NPDES permit discharge requirements, treatment plant performance, and modifications to the treatment facilities. The method of allocation of local limits to the IUs can be concentration-based, mass-based or a combination of both.

The United States Environmental Protection Agency (EPA) Local Limits Development Guidance (EPA (2004), *Local Limits Development Guidance* (833-R-04-002A). Office of Wastewater Management) includes provisions for developing any needed local limits when the justification is technically based. The guidance document and its associated appendices are referenced throughout the process to evaluate local limits and to develop any needed local limits as pretreatment requirements. As part of the development of local limits, a sampling plan was developed and implemented during the wet weather season (between February 18 and February 27 of 2021) and during the dry weather season (between June 9 and June 19 of 2021).

1.1 Local Limits Development Objectives

Industrial Pretreatment Programs are intended to regulate industrial and commercial users that have the potential to negatively impact the wastewater facilities and staff. The goals of the program are as follows:

- To prevent the introduction of pollutants into the municipal wastewater system which will interfere with the operation of the POTW, including interference with its use or disposal of domestic wastewater residuals and reclaimed water.
- To prevent discharges to the POTW which will pass through or otherwise be incompatible with its treatment process.
- To improve opportunities to beneficially use domestic wastewater residuals and reclaimed water.
- To protect the POTW operations personnel.
- To maintain POTW compliance with the discharge permit, receiving water and reuse criteria, and residuals disposal quality standards.
- To assure compliance with applicable federal, state, and local regulations.

To accomplish these objectives, industrial pretreatment programs rely on three elements:

- National Categorical Standards (industry specific effluent limits).
- Prohibited Discharge Standards (general and specific prohibitions).
- Enforceable Technically Based Local Limits (TBLLs).

Local limits are established to protect individual wastewater treatment plants from industrial discharges that may cause pass-through, interference, or diminish the use of wastewater residuals and reclaimed water. Technically based local limits are site-specific requirements that are developed and enforced on pollutants of concern by the WWTP. The adoption of technically based defensible local limits will help ensure an effective pretreatment program for the City.

2.0 FACILITY DESCRIPTION

2.1 Wastewater Treatment Plant Description

2.1.1 Ocean Outfall Discharge

The WWTP discharges to an ocean outfall designated as “Class A Wet Open Coastal Waters” under Hawaii Administrative Rules (HAR), Section 11-54-06⁽⁷⁾(b)(2)(B). Protected beneficial uses of Class A waters include recreation, aesthetic enjoyment, and the protection and propagation of fish, shellfish, and wildlife.

2.1.2 Plant General Information

Table 2-1, NPDES Permit Information

Name	Code	Permit #	Issue Date	Expire Date	Permit Flow MGD	Receiving Water Classification	Applicable Water Quality Criteria Section per Hawaii Administrative Rules (HAR)*
Sand Island WWTP	SI	HI 0020117	5/1/2021	04/30/2026	90	Class A Wet Open Coastal Waters	11-54-06(b)(2)(B)

MGD = million gallons per day

* Applicable water quality criteria referenced in the NPDES Permit, Part C, 2. A.

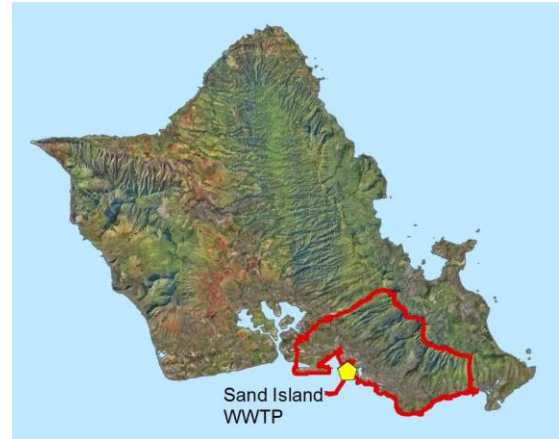
Table 2-2, WWTP Specific Information

Name	Population Served	Secondary Treatment MGD	Tertiary Treatment MGD	Dilution Factor for Chronic Aquatic and non-Carcinogens	Dilution Factor for Fish Consumption for Carcinogens	Average Dilution Factor at ZOM
Sand Island WWTP	460,000	--	--	221	550	--

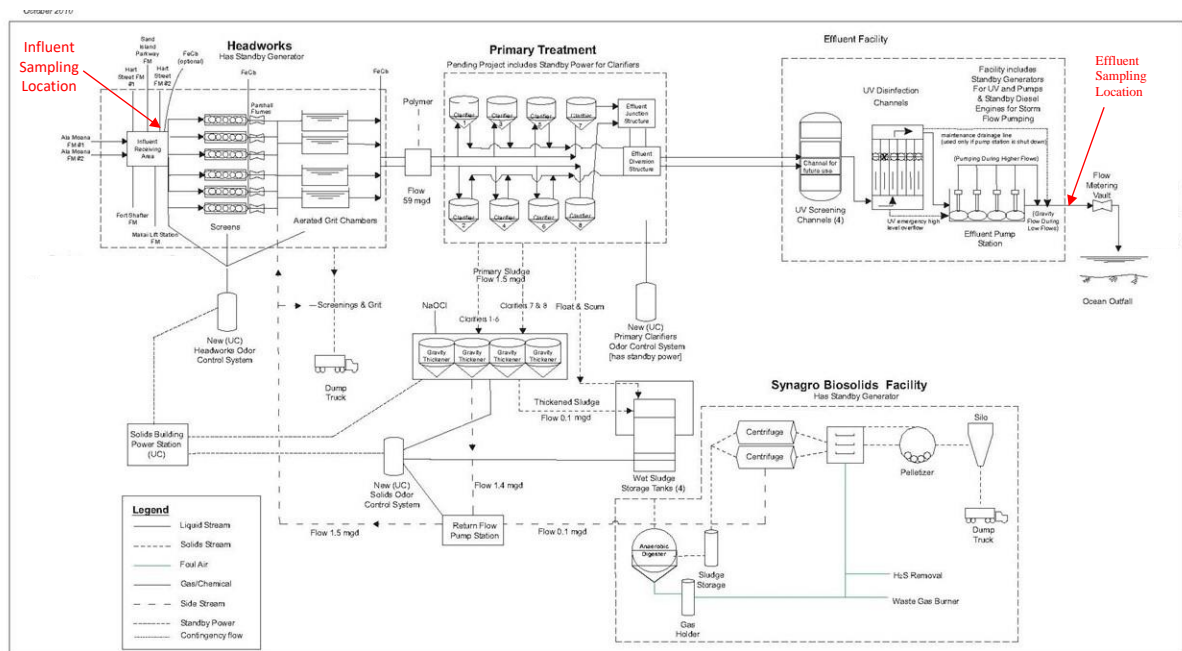
2.2 Sand Island WWTP

2.2.1 Sand Island WWTP Location and Service Area

The Sand Island WWTP is located at 1240 Sand Island Parkway, Honolulu, Hawaii 96819. The facility discharges to the Pacific Ocean through an ocean outfall at Latitude 21°17'01"N and Longitude 157°54'24"W.



2.2.2 Sand Island WWTP Process Diagram



2.2.3 Sand Island WWTP Collection System Details

Pump Stations:	16
Gravity Mains:	563.7 miles
Force Mains:	15.2 miles
Manholes:	19,298
Laterals:	50,612

2.2.4 *Sand Island WWTP Details*

Year in service:	1965
Process Type:	Advanced Primary Treatment
Average Design Flow:	90.0 MGD (with 8 clarifiers in service; current operation)
Maximum Design Flow:	113.0 MGD
Peak Design Flow:	271.1 MGD
Average 2020 Flow:	68.58 MGD (per 2020 Pretreatment Annual Assessment Report (PAAR))

2.3 Sand Island WWTP Treatment Process

2.3.1 *Sand Island WWTP Headworks*

All incoming force mains from the collection system pump stations deliver wastewater to the WWTP through the Headworks facility influent receiving box. From there, wastewater is distributed to a minimum of two of six available aerated screening channels where screening occurs and flow is measured using Parshall flumes. Grit is then removed using two to four aerated grit removal chambers. From the grit removal chambers, the wastewater is directed to the clarifier's influent channels.

2.3.2 *Sand Island WWTP Primary Treatment Facility.*

Preliminary treated wastewater from the Headworks flows enters the influent channels to the primary treatment facility which is comprised of eight 150-foot diameter primary clarifiers. Six clarifiers have 12-foot sidewall depths and two have 14-foot sidewall depths. At normal flows, four clarifiers are used. In the clarifiers, physical separation of settleable and floatable solids from the liquid takes place. Floatable solids and settled solids forming sludge is pumped to the solids building.

2.3.3 *Sand Island WWTP Effluent Facility*

The treated effluent is piped from the clarifier facility, through junction boxes, to the effluent screens at the Effluent Facility. After screening, the effluent is disinfected, normally using three or four of the five available dual bank medium pressure ultraviolet (UV) disinfection channels. After being disinfected, the effluent is discharged to the deep-ocean outfall. The discharge is by gravity for flows below approximately 60 MGD (depending on the tide). As flow increases, the pump station wet well level increases, and up to three electrically driven pumps start automatically. At higher flows, diesel engines are used. Three of the four installed diesel driven pumps have the capacity to discharge up to 270 MGD, the rated capacity of the 84-inch diameter outfall.

2.3.4 *Sand Island WWTP Ocean Outfall*

The WWTP is permitted to discharge treated effluent to Ocean Outfall (Serial No. 001) located in the Pacific Ocean (Mamala Bay). Specifically, effluent is discharged through an 84-inch diameter outfall pipe that is equipped with a 3,398 foot long diffuser located about 9,100 feet from the shoreline, and varies in depth from 225 to 240 feet below mean lower low water (MLLW). The diffuser has 282 side ports that range in size from 3 inches to 3.53 inches in diameter and two 7-inch diameter ports in the end gate. The first approximately 4,500 feet of the outfall is laid in a trench and covered with armor stone. The

remainder of the outfall is laid on a gravel pad and covered by armor stone. The diffuser portion only has armor stone over the pipe between the side discharge ports.

Treated effluent is required by the NPDES permit to meet specific effluent quality and dilution criteria at the edge of the Zone of Mixing (ZOM), an area that is 1,400 feet wide and 4,800 feet long along the centerline of the diffuser and extends vertically downward to the ocean floor.

2.3.5 Sand Island Sludge Processing and Side Streams

Sludge from the clarifiers is pumped to the gravity thickener (GT) tanks. Thickened sludge from the GTs is transferred to a wet storage tanks and then to two anaerobic digesters. After digestion, the remaining sludge are centrifuged and is transported to a dryer and then is pelletized into fertilizer. The operations from the anaerobic digester to the pelleting process is overseen by Synagro-WWT, Inc. (Synagro).

Flow to the solids handling facility is approximately 360,000 gallons per day per clarifier in use.

2.3.6 Secondary Treatment System (2026)

Pursuant to the current WWTP NPDES Permit and Consent Order requirements (First Amended Consent Decree (CD)⁽⁸⁾, 2012), the City is required to fully upgrade the Sand Island WWTP to provide secondary treatment by 2035, with provisions to extend the schedule to 2038.

The City has issued a Notice to Proceed to construct Phase 1 of secondary treatment facilities at the WWTP by 2026. Phase 1 will include approximately 20 MGD of treatment via a membrane bioreactor (MBR) prior to disinfection and effluent discharge to the ocean outfall. Construction of Phase 1 MBR is anticipated to be completed by December 2026.

3.0 DETERMINING POLLUTANTS OF CONCERN

A POC is any pollutant that might reasonably be expected to be discharged to the WWTP in sufficient amounts to cause pass-through or interference, cause problems in its collection system or jeopardize its workers. Pollutants that are contributing to or known to cause operational problems are also considered POCs even if the pollutants are not currently causing NPDES permit violations.

3.1 Data Screened to Determine Pollutants of Concern

Data reviewed for this evaluation included:

- Priority pollutant scans from 2015 to 2020
- Treatment plant reports (discharge monitoring report (DMR)) from 2015 to 2020
- Industrial Pretreatment Program Annual Reports (PAARs) from 2015 to 2020
- SIU monitoring report data from 2015 to 2020
- Hauled waste types and flows
- Current NPDES permit including the reasonable potential analyses (RPA)
- CD interim effluent limits

- Existing local limits for the WWTP (where applicable)
- Recommendations from the Hawaii Department of Health (DOH) Preliminary Approval of Pretreatment Program Local Area Limits letter dated July 30, 2019 (07013EMED.19)

3.2 National Pollutants of Concern

EPA has identified 15 pollutants often found in POTW biosolids and effluent that it considers potential POCs. Ten of the pollutants were first identified in the Guidance Manual on the Development and Implementation of Local Discharge Limitations under the Pretreatment Program (EPA 833B87202, December 1987). EPA added Molybdenum and Selenium because they are part of the Federal regulations for the land application of biosolids. EPA added the conventional pollutants 5-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS) because many POTWs have ongoing problems with excessive loadings of these two pollutants. EPA also added ammonia as a “conditional” POC, for POTWs that accept nondomestic sources of ammonia, because ammonia can be a cause for POTW effluent toxicity and inhibition in the biosolids process.

EPA recommends that each POTW, at a minimum, screen for the presence of the 15 pollutants using data from industrial user discharges and analytical results of samples collected from POTW influent, effluent, and biosolids.

Table 3-1: National Pollutants of Concern

Pollutant		BASIS
1	Ammonia-N	EPA POC
2	Arsenic	EPA POC
3	BOD ₅	EPA POC
4	Cadmium	EPA POC
5	Chromium	EPA POC
6	Copper	EPA POC
7	Cyanide, Total	EPA POC
8	Lead	EPA POC
9	Mercury	EPA POC
10	Molybdenum	EPA POC
11	Nickel	EPA POC
12	Selenium	EPA POC
13	Silver	EPA POC
14	Total Suspended Solids	EPA POC
15	Zinc	EPA POC
EPA = EPA Local Limits Guidance Manual National POCs		
Permit Limit = Limit listed in the WWTP's NPDES Permit		

3.3 EPA POC Criteria Using Existing Data

The EPA guidance document suggests using existing sampling results and the six criteria defined in the guidance document to identify additional pollutants to the national list of POCs. The evaluation reviewed the sampling results against the applicable standards for effluent discharge limits, influent inhibition standard levels, and biosolids criteria. All results in the local limits calculation Excel spreadsheet used to

evaluate local limits sampling data and calculate pollutant removal efficiencies, MAHL, MAIL and local limits were converted to micrograms per liter (µg/L) for influent and effluent samples; and to milligrams per kilogram (mg/Kg) for biosolids.

3.3.1 Whole Effluent Toxicity (WET) Characterization

EEC conducted a review of the findings from the City's previous Toxicity Reduction Evaluations (TRE) and Toxicity Identification Evaluations (TIE) to identify pollutants responsible for toxicity. The current NPDES permit for the WWTP includes testing one species for the three chronic species (*Tripneustes gratilla* or *T.gratilla*, *Ceriodaphnia dubia* or *C.dubia* and *Atherinops affinis* or *A.affinis*) each month such that each species is tested at least once per quarter. In the previous NPDES permit, the requirement was to conduct monthly WET tests on *T.gratilla* only.

The most recent TIE for the WWTP was conducted in early 2015. The toxicity profile followed the historical pattern that surfactants were the probable contributors to toxicity. Aeration of the influent wastewater with added activated sludge led to a significant reduction of toxicity. Surfactant source studies were initiated for the WWTP collection wastewater pump stations (WWPS) in January 2016 and surveys of products being used by industrial and commercial laundries were conducted. No pattern was found to suggest greater toxicity in samples in industrial WWPS samples versus residential WWPS samples. Laboratory jar testing was conducted in June and August 2016 to evaluate the effectiveness of ferric chloride (FeCl₃) and polymer doses on toxicity reduction. These chemicals are added at the WWTP to enhance the primary clarification process. All tests except one showed that in combination of various doses of FeCl₃ (iron chloride), from 7-15 parts per million (ppm) and polymer (dosing between 0-2.5 ppm) reduced toxicity.

Studies conducted by the City's Water Quality Laboratory (WQLAB) in the late 1990's on effluent from the WWTP and Honouliuli WWTP and more recently in 2015 for the WWTP strongly implicated nonpolar organic compounds as contributors to effluent toxicity. Tests confirmed the following toxicity profile: (1) toxicity is removed by filtration and centrifugation indicating the affinity of the toxicants to particulates; (2) toxicity is eliminated by C18 showing the nonpolar organic nature of toxicants; and (3) toxicity degrades over time on storage.

Based on the results of the toxicity tests, the probable toxicity contributors were surfactants, nonionic organic compounds and nonpolar organics. Therefore, samples will be analyzed using the methylene blue active substances (MBAS) assay method which consist of a colorimetric analysis test method that uses methylene blue to detect the presence of anionic surfactants (such as a detergents or foaming agents). Controlling surfactants through local limits is not expected to reduce these pollutant loadings to the WWTP considering that this ubiquitous POC loading is most likely from residential and commercial dischargers.

The following POCs were included in the local limits evaluation as recommended by the July 30, 2019 DOH letter 07013EMED.19.

- Cyanide
- Pesticides
- Surfactants
- Fats, Oils and Grease

In addition, Per- and Polyfluoroalkyl Substances (PFAS) was included as a POC in this Study since it is an emerging pollutant of concern that is widely used in many different consumer, commercial and industrial products and have been found in wastewater and sewage sludge.

3.3.2 *Other Regulatory Standards*

The WWTP's NPDES permit does not include additional parameters not previously identified as POCs.

3.3.3 *Significant Industrial User Discharges*

No additional POCs were identified in the review of available SIU monitoring results.

3.3.4 *Existing Local Limits*

The 2019 local limits development study proposed local limits for BOD₅, TSS and Zinc for the WWTP as referenced in Table 3-6. These parameters are already included in the list of POCs.

3.3.5 *Pretreatment Program Compliance Review*

A review of the 2016 through 2020 PAAR revealed that no exceedances were attributed to permitted SIU discharges or excessive influent pollutant loadings at the WWTP.

3.3.6 *SIU Summary*

This Study included a review of the permitted SIUs, its types, industrial processes, permit monitoring requirements and compliance sampling data to determine if additional POCs that can potentially be discharged by the SIUs need to be identified. Tables 3-2 A, *SIU Background Information* and 3-2 B, *SIU Compliance History*, provide general information for the SIUs that were permitted from 2016 – 2020.

Following the review of the SIU compliance sampling data during the Study, six pollutants were identified as potential POCs. They were not included in the NPDES permit required semi-annual priority pollutant scans on WWTP influent and effluent but are regulated parameters for an SIU subject to the 40 CFR 437 Centralized Waste Treatment Point Source Category Subpart B for Oily Waste⁽⁹⁾. They were not identified as POCs in this Study because there is no applicable NPDES permit limitation or process inhibition basis that exists for developing a local limit or there is a federal categorical industry specific limitation specified in the SIU's IWD permit to control the pollutant). These pollutants and the corresponding basis for not adding them as POCs are as follows:

- Carbazole – 40 CFR Part 437 Pollutant – No basis for developing a local limit
- Cobalt - 40 CFR Part 437 Pollutant – No basis for developing a local limit
- N-Decane – 40 CFR Part 437 Pollutant – No basis for developing a local limit
- N-Octadecane – 40 CFR Part 437 Pollutant – No basis for developing a local limit
- Tin – 40 CFR Part 437 Pollutant – No basis for developing a local limit
- Flashpoint – No basis for developing a local limit and pollutant is controlled through the general pretreatment prohibitions

Waikiki Aquarium, Inc. was issued an SIU IWD permit effective February 5, 2021. It includes exhibits that support marine animals, fish and invertebrates. The nature of anticipated pollutants to be discharged by the aquarium include pollutants that are already included in the current POCs list being evaluated.

The City is currently in the process of issuing an SIU IWD permit to the State Department of Transportation (DOT) Consolidated Car Rental Facility (Airport Carwash) for its car washing operations. The nature of the anticipated discharged pollutants are already included in the current POCs list being evaluated.

In summary, no additional POCs were identified following a review of the SIU information.

Table 3-2A: SIU Background Information

Industry Name	Permit #	Industry Description	SIU trigger	Treatment Process	Address	SIC Code	CIU Category
Coca Cola	20179002	Beverage / juice manufacturer	Process wastewater Exceeds 25,000 gpd	Screens (at floor drains), pH Neutralization and Clarifier	949 Mapunapuna St., Honolulu, HI	2086	NA
Dust-Tex	201792001	Power Laundry	Process wastewater Exceeds 25,000 gpd	pH Neutralization System, Screens, Sump Pit, and Lint Trap	210 Puuhale Rd., Honolulu, HI	7211	NA
ITOEN	20179003	Beverage / juice manufacturer	Process wastewater Exceeds 25,000 gpd	Oil Skimmer and Screens	125 Puuhale Rd., Honolulu, HI	2033	NA
Meadow Gold	20179004	Beverage / juice manufacturer (out of business)	Process wastewater Exceeds 25,000 gpd	Screens (at floor drains)	910 Sheridan St., Honolulu, HI	2026	NA
Pacific Biodiesel (PBD)	20182247423	Biodiesel manufacturer	Potential impact to the WWTP	Grease Cooking Oil/ Recycling System, Solids Interceptor, pH Neutralization System, Dissolve Air Flotation (DAF) System, Skimmer, and Screens	1003 Makepono St., Honolulu, HI	2077 4952	NA
Pacific Environmental Company (PENCO)	20209005-001	Centralized Waste Treatment Facility-Oily water	Categorical	Oil Water Separator and 5 Stage Filtration System	795 N. Nimitz Hwy., Honolulu, HI	4953	437 Subpart B
Steiner (ALSCO)	20209001-001	Power Laundry	Process wastewater Exceeds 25,000 gpd	Screens (in floor drains), Lint Trap, Oil Skimmer (in sump pit), and pH Neutralization System	2771 Waiwai Loop, Honolulu, HI	7213 7218	NA
United Laundry-Alahao Place	20209003R-001	Power Laundry	Process wastewater Exceeds 25,000 gpd	Screens (at floor drains), Sump pit (solids settling), Lint Traps, and pH Neutralization System	2291 Alahao Place, Honolulu, HI	7211	NA
United Laundry-Hoonee Place	20209002R-001	Power Laundry	Process wastewater Exceeds 25,000 gpd	Screens (at floor drains), Solids Settling Pit, Lint Trap, Screens, and pH Neutralization System	2265 Hoonee Place, Honolulu, HI	7211	NA
Waikiki Aquarium	20219001-001	Aquarium Exhibits	Exceeds 25,000 gpd process wastewater	To be specified / provided by the SIU pursuant to the terms of the Consent Agreement entered into between the SIU and the State of HDOH, Docket No. 2019-CW-E0-33	2777 Kalakaua Ave., Honolulu HI	8422	NA

Note: The Airport Carwash was not a permitted SIU in 2021 and was excluded from the above table and local limits sample collection events.

Table 3-2B: SIU Compliance History

Industry Name	2016 Violations	2017 Violations	2018 Violations	2019 Violations	2020 Violations	2018 PAAR AVERAGE Flow (MGD)	2019 PAAR AVERAGE Flow (MGD)	2020 PAAR AVERAGE Flow (MGD)	SIU AVERAGE Flow Used in Local Limits Calculation (MGD)
Coca Cola	2016 Violations	2017 Violations	2018 Violations	2019 Violations	None	43,200	29,380	0.043050	0.043050
Dust-Tex	None	None	None	None	None	23,000	26,450	0.027550	0.027550
ITOEN	None	HEM	None	HEM, pH	pH	27,000	27,000	0.027000	0.027000
Meadow Gold*	pH	None	None	pH	HEM	16,916	17,500	0.066960	0.066960
Pacific Biodiesel (PBD)	NA	NA	HEM	HEM	HEM, pH	2,627	2,480	0.013650	0.013650
Pacific Environmental Company (PENCO)	pH, Cu, n- Octadecane	TPH, Cu, Zn, n-Octadecane	None	Flashpoint	None	139,230	120,410	0.002520	0.002520
Steiner (ALSCO)	HEM	HEM	HEM	HEM	HEM	382,017	342,540	0.055540	0.055540
United Laundry-Alahao Pl	None	None	None	None	None	69,402	75,000	0.173470	0.173470
United Laundry-Hoonee Pl	None	None	None	HEM	None	43,200	29,380	0.063170	0.063170
Waikiki Aquarium**	NA	NA	NA	NA	NA	NA	NA	NA	0.074620
Airport Carwash***	NA	NA	NA	NA	NA	NA	NA	NA	0.074840
Total Average SIU FLOWS:						0.770082	0.707720	0.472910	0.622370

* Meadow Gold permanently ceased all industrial wastewater discharges on 04/30/2020. This facility's IWD permit was terminated on 07/24/20 due to business closure.

** Waikiki Aquarium is a new SIU permitted by the City effective February 5, 2021 and was sampled during SIU local limits sampling events.

*** Airport Carwash was not permitted in 2021 and not sampled during local limits sampling events

3.3.7 *Hauled Waste Summary*

The City currently permits 3 types of waste haulers to discharge to the WWTP, as follows:

Type 1 – Domestic Waste,

Type 2 – FOG Waste, and

Type 3 – Industrial Waste

Type 1 waste hauler sources are domestic waste (uncontrolled source waste). There is no historic sampling data available to identify POCs for Type 1 hauled waste. Therefore, no POCs were identified for this waste source during the Study.

Type 2 waste hauler sources generate FOG-related wastes. Currently, the City does not accept Type 2 waste at any of its wastewater treatment plants. Type 2 waste is collected and processed by two private FOG recycling facilities, namely, Pacific Biodiesel and Baker (Island) Commodities. Pacific Biodiesel is an SIU in the Sand Island WWTP basin while Baker (Island) Commodities is an SIU that discharges its industrial wastewater via Type 3 hauling primarily to the Honouliuli WWTP, although it can also discharge to the Sand Island WWTP. There is no historic sampling data available for Type 2 waste. However, a review of the historic data from the SIUs receiving and treating Type 2 waste did not identify any additional POCs that required further evaluation.

The Type 3, classified as industrial waste, and pollutants are controlled through effluent limitations established for the SIU wastewater source directly. Historic Type 3 hauled waste sampling results were reviewed during the Study, and no additional POCs were identified that required further evaluation.

Table 3-3, *Hauled Waste Summary* includes a summary Type 1, 2 and 3 hauled waste permittees, the source of wastewater discharged by each permittee, and the corresponding historic average daily flows discharged yearly over the 2016 – 2020 period.

Table 3-3: Hauled Waste Summary

No.	Waste Hauler	Type	Sources	Comment	Total Volumes of Million Gallons Discharge per Day (MGD)				
					2016	2017	2018	2019	2020
1	4K SANITATION	1	Domestic Waste	Multiple Clients	0	0	0	0	0
2	808 HAULING SERVICES	1	Domestic Waste	Multiple Clients	0	0	0.125600	0	0
3	ABC PUMPING	1	Domestic Waste	Multiple Clients	0.098800	0.030300	0.024500	0.004375	0
4	ACME PUMPING	1	Domestic Waste	Multiple Clients	0.581105	0.019450	0.047710	0	0
5	AL KANEALII	1	Domestic Waste	Multiple Clients	0	0	0	0	0
6	AQUA ENGINEERS, INC.	1	Domestic Waste	Multiple Clients	0	0.001200	0	0	0
7	AQUA PUMPING	1	Domestic Waste	Multiple Clients	0.506750	0.060205	0.001875	0.016900	0.00240
8	A'S PARTY PORTABLE	1	Domestic Waste	Multiple Clients	0	0.002760	0.002375	0.001900	NR
9	BARBERS POINT AVIATION SERVICES	1	Domestic Waste	Multiple Clients	0	0	0	0	0
10	B'G RIG'S PUMPING	1	Domestic Waste	Multiple Clients	0.013000	0	0	0	0
11	CHARLIE'S PUMPING SERVICE	1	Domestic Waste	Multiple Clients	0	0	0	0	0
12	CHEMI-TOI	1	Domestic Waste	Multiple Clients	0.022030	0.000420	0	0.000731	0
13	EM3 PUMPING	1	Domestic Waste	Multiple Clients	0.178441	0.012080	0.002000	0	0
14	FIRST QUALITY BUILDING & DESIGN, INC.	1	Domestic Waste	Multiple Clients	0.006600	0	0.001700	0	0
15	GECKO ENTERPRISES	1	Domestic Waste	Multiple Clients	0.104650	0.057750	0.031200	0.023450	0.036000
16	HAWAII INDUSTRIAL SERVICES	1	Domestic Waste	Multiple Clients	0	0	0	0	0
17	HAWAIIAN PUMPING SPECIALIST LLC	1	Domestic Waste	Multiple Clients	0.005900	0	0	0	0
18	HONOLULU DISPOSAL SERVICE	1	Domestic Waste	Multiple Clients	0	0	0	0	0
19	iRod	1	Domestic Waste	Multiple Clients	0	0	0.001100	0	0
20	ISLAND PUMPING AND SERVICES	1	Domestic Waste	Multiple Clients	0	0	0	0	0
21	J & M CESSPOOL & SEPTIC PUMPING	1	Domestic Waste	Multiple Clients	0.002000	0	0	0.005800	0
22	JNR ENVIRONMENTAL	1 & 3	Domestic Waste	Multiple Clients	0.131500	0.095750	0.113900	0.051400	0.019007
23	ON-SITE VACUUM SERVICE	1	Domestic Waste	Multiple Clients	0	0	0	0	0
24	PACIFIC BIODIESEL LOGISTICS	1	Domestic Waste	Multiple Clients	0.049750	0.023000	0	0.049685	0.002450
25	PACIFIC COMMERCIAL SERVICES	1	Domestic Waste	Multiple Clients	0.010190	0.011705	0.019390	0.025210	0.008539
26	PACIFIC PUMPING & SEPTIC	1	Domestic Waste	Multiple Clients	0	0.048700	0.183350	0.133550	0.071000
27	PARADISE LUA	1	Domestic Waste	Multiple Clients	0.049996	0.010235	0.009205	0.014585	0.043752
28	PROJECT VISION HAWAII	1	Domestic Waste	Multiple Clients	0	0	0.000080	0.002558	0
29	RSM PUMPING SERVICE	1	Domestic Waste	Multiple Clients	0.011300	0.006300	0	0	0

No.	Waste Hauler	Type	Sources	Comment	Total Volumes of Million Gallons Discharge per Day (MGD)				
					2016	2017	2018	2019	2020
30	S & S PUMPING	1	Domestic Waste	Multiple Clients	0.001320	0.000990	0	0	0
31	SERVALL	1	Domestic Waste	Multiple Clients	0.000500	0	0	0	0
32	UNDERGROUND SERVICES, INC.	1	Domestic Waste	Multiple Clients	0.006000	0.006057	0	0	0
33	VIP SANITATION	1	Domestic Waste	Multiple Clients	0.292820	0.048360	0.011090	0	0.006090
34	WINDWARD PUMPING SERVICE	1	Domestic Waste	Multiple Clients	0	0	0	0	0
	Total Type 1 Annual Flows (MG):				2.072652	0.435262	0.575075	0.330144	0.189238
	Total Type 1 Daily Flows (MGD):				0.005678	0.001192	0.001576	0.000905	0.000518
1	PENCO*	3	PENCO	SI Permitted SIU – CWT	0.952433	0.921302	0.536014	0.316117	0.597168
2	ISLAND COMMODITIES	3	Island Commodities	HO Permittee– SIU - FOG	NR	NR	NR	NR	NR
3	Island Bin Cleaners - (Trash bin washers)	3	Trash Bin Cleaning	337 Clients	NR	NR	NR	NR	0
4	Clean Cans Hawaii - (Trash bin washers)	3	Trash Bin Cleaning	39 Clients	NR	NR	NR	NR	0.000030
5	CCH-ENV-REFUSE DIVISION KAPAA LANDFILL	3	Kapaa landfill	1 Client	0	0	0	0	0.706500
	Total Type 3 Annual Flows (MG):				0.952433	0.921302	0.536014	0.316117	1.303698
	Total Type 3 Daily Flows (MGD):				0.002609	0.002524	0.001469	0.000866	0.003572

NR – Not recorded; data not available

3.4 Final List of Pollutants of Concern Identified in the Study

Table 3-4 lists the 20 final POCs identified in the Study that were evaluated during local limits evaluation.

Table 3-4: Sand Island Final Study Pollutants of Concern

Pollutant		BASIS
1	Ammonia-N	EPA POC
2	Arsenic	EPA POC
3	BOD ₅	EPA POC/Permit Limit/Existing
4	Cadmium	EPA POC
5	Chlordane*	Requested POC
6	Chromium	EPA POC
7	Copper	EPA POC
8	Cyanide, Total	EPA POC
9	Dieldrin*	Requested POC
10	HEM (SGT; Oil and Grease , Non-SGT; TPH)	EPA POC
11	Lead	EPA POC
12	MBAS (Surfactants)	TIE/TRE Review
13	Mercury	EPA POC
14	Molybdenum	EPA POC
15	Nickel	EPA POC
16	PFAS (PFOA, PFOS)	Requested POC
17	Selenium	EPA POC
18	Silver	EPA POC
19	Total Suspended Solids	EPA POC/Permit Limit/Existing
20	Zinc	EPA POC / Existing

EPA = EPA Local Limits Guidance Manual National POCs

Permit Limit = Pollutant limit listed in WWTP's NPDES Permit

Review POC = POC identified in review of available data

Existing = Proposed Local Limit from the 2019 evaluation

HEM = N-Hexane Extractable Material SGT = Silica Gel Treated

Toxicity Identification Evaluation and Toxicity Reduction Evaluation (TIE/TRE) Review = Review of Whole Effluent Toxicity (WET) Reports

*Indicates POC was not detected in any local limit sample, and was excluded from the MAHL, MAIL and local limit evaluation.

4.0 SAMPLING PLAN

POCs were sampled at the WWTP's influent and effluent, uncontrolled sources at the collection system, permitted SIU sample points and at the Type 1 (domestic) waste hauler discharge location at the WWTP. The sampling point selected for the uncontrolled source included residential and permitted commercial discharges and does not receive permitted SIU flows. In addition to the sampling and analyses for the POCs, samples were collected and analyzed for priority pollutants.

4.1 Sampling Points Details

The sampling points used in this study are described below.

4.1.1 *Influent Sample Point*

The influent compliance sample point identified in the WWTP's NPDES permit was the location used to collect influent local limits samples. A sample was collected from the dedicated ISCO automatic sampler at the WWTP Headworks. The influent sampling location is located prior to the introduction of the WWTP process side streams. The EPA recommends that samples be collected at the WWTP's headworks to determine the average and maximum levels at which POCs enter the treatment plant. Influent sampling provides data to be used in calculating WWTP-specific removal efficiencies and in calculating the MAHL.

A photo of the WWTP influent sample point is presented below.



Sand Island WWTP Influent Sample Point

4.1.2 *Effluent Sample Point*

The effluent compliance sample point was identified in the WWTP's permit. The compliance sample point is immediately prior to the outfall discharge. Effluent sampling is essential to determining the WWTP's overall pollutant removal efficiency. An automatic (ISCO) sampler, separate from the automatic sampler used for compliance monitoring, was used for the local limits sampling. The local limit sampler was programmed to shift sampling one hydraulic retention time from the influent sampler.

A photo of the WWTP effluent sample point is presented below.



Sand Island WWTP Effluent Sample Point

4.1.3 WWTP Biosolids

EPA's biosolids disposal regulations require that biosolids be sampled at the time of disposal and after addition of conditioners to determine the solids content. For those POTWs that use land application for biosolids disposal, EPA recommends that they also sample periodically for other pollutants. The frequency of sampling depends on the amount of biosolids generated annually. Biosolids samples collected to support compliance with the biosolids disposal regulations found in 40 CFR 503⁽¹⁰⁾ can also be used to calculate local limits. One sludge sample was collected after the Sand Island WWTP's filter press conveyor belt.

A photo of the Sand Island biosolids sample point is presented below.



Sand Island WWTP Biosolids Sample Point

4.1.4 Sand Island WWTP Uncontrolled Sources Sample Point

The uncontrolled source sample point is Sewer Manhole (SMH) #480106 located within a fenced area of the Kahala WWPS. This location captures residential (Kahala), some commercial flows within vicinity of Kahala WWPS and a mixture of both residential and commercial flows sourced east of Kahala, making the sampling location representative of domestic/commercial flows only.

Photos of the location and a map of the upstream tributary for this sample point are presented below.



Manhole #480106

4.1.5 *Hauled Waste Sample Points*

A hauled waste sample was collected from one waste hauler that manager both Type 1 and Type 3 waste (JNR Enterprises) for Type 1 hauled waste characterization, and one Type 3 waste hauler (CCH-ENV-Refuse Division Kappa Landfill), for Type 3 hauled waste characterization.

4.1.6 Permitted SIU Sample Points

Although not required to be sampled in conjunction with influent and effluent sampling for this Study, a sample for all POCs was collected at each of the nine actively-permitted SIU facilities during the wet season sampling event, at sampling locations specified in their respective SIU IWD permits.

Meadow Gold and the Airport Carwash were excluded from the sampling as they were not permitted as SIUs during the local limits sampling event.

The SIU facilities that were sampled during the Study are presented in Table 4-1, *SIU Locations*.

Table 4-1: SIU Locations

Facility	Location
Coca Cola	949 Mapunapuna Street, Honolulu, HI 96819
Dust-Tex	210 Puuhale Rd Unit B1, Honolulu, HI 96819
ITOEN	125 Puuhale Rd, Honolulu, HI 96819
Pacific Biodiesel (PBD)	1003 Makapono Street, HI 96819
Pacific Environmental Company (PENCO)	795 N. Nimitz Hwy, Honolulu, HI 96817
Steiner (ALSCO)	277-1 Waiwai Loop, Honolulu, Hawaii 96819
United Laundry-Alahao Pl	2291 Alahao Place, Honolulu, Hawaii 96819
United Laundry-Hoonee Pl	2265 Hoonee Place Honolulu, Hawaii 96819
Waikiki Aquarium	2777 Kalakaua Avenue, Honolulu, Hawaii 96815

4.2 Hydraulic Retention Time

The time interval between influent and effluent sample start times was approximately equal to the total hydraulic retention time across the WWTP. The hydraulic retention time of 2 and 2/3 hours was used. By sampling the influent and then sampling the effluent after one hydraulic retention time, the results of the paired samples (influent to effluent) generate a higher level of accuracy for the calculated pollutant removal efficiency across the WWTP.

4.3 Sampling Methods

All sampling activities were conducted according to the protocols established in 40 CFR Part 136⁽¹¹⁾. All samples were delivered to FQLabs, located at 3170-A Ualena Street in Honolulu, for analyses. Analyses that could not be performed by FQLabs were shipped, by FQLabs, to Weck Laboratories located in the City of Industry, California.

Special care was taken not to contaminate samples. This included storing samples in a secure location to preclude conditions which could alter the properties of the sample. Samples were custody sealed during shipment.

Collected samples remained in the custody of the sampler or sample custodian until the samples were relinquished to another party. While samples were transported by the sampler, they remained under his/her custody until relinquished.

Shipped samples conformed to all U.S. Department of Transportation (DOT) and/or International Air Transportation Association (IATA) hazardous materials shipping requirements.

4.4 Sample Types

4.4.1 Composite Sample:

A composite sample is a sample collected over time, formed either by continuous sampling or by mixing discrete samples. Composite samples reflect the average characteristics during the compositing period. Twenty-four-hour, flow-proportional composite samples were collected from the WWTP effluent and influent as well as from the uncontrolled source sampling location.

A full-size automatic sampler (ISCO Model 6712) equipped with a 2150 Doppler Flow Module was used at the selected manhole to collect the composite samples. The WWTP influent sample was collected using the NPDES permit compliance sampler, whereas, for the WWTP effluent sample, a separate (ISCO) automatic sampler was used.

4.4.2 Grab Samples

A grab sample is an individual sample collected over a short period of time, usually all in one motion, generally not exceeding 15 minutes. The 15-minute time limit applies to aqueous samples only. No time limit applies to the collection of solid samples (e.g., biosolids). Grab samples were collected for the POCs that require grab sampling techniques (i.e., Cyanide, volatile organic compounds (VOCs), HEM and SGT HEM).

4.4.3 Equipment and Trip Blanks

Equipment blanks were collected at all sampling sites by running analyte-free water through the autosampler tubing on the first day for all sample bottle types that were used. Trip blanks were prepared by the laboratory and accompanied all EPA 624 samples.

4.5 Sampling Frequency

The July 30, 2019 DOH letter 07013EMED.19 included a requirement that adequate data be collected in accordance with EPA Local Limits Development Guidance Manual.

Based on the EPA Local Limits Development Guidance Manual, the number of sampling events for the local limit re-evaluations without long-term monitoring data should consist of at least seven consecutive days of sampling from the collection system and the WWTP influent and effluent sampling points; and, at least two days of sampling from the biosolids sampling point. Table 4-2, *EPA Guidance Minimum Sampling Frequencies*, lists the sampling frequencies for a full local limits evaluation.

Table 4-2: EPA Guidance Minimum Sampling Frequencies

Parameter	Influent	Effluent	Biosolids	Residential/ Commercial
Organic Priority Pollutants	1 – 2	1 – 2	1	1 – 2
Plan of Study POCs	7 – 14*	7 – 14*	2	7
40 CFR 503 Pollutants and Percent Solids	0	0	2	0
TCLP Pollutants	0	0	1	0

* Sampling days are defined as the number of days that samples are collected for a parameter. Sampling days will be consecutive days for National POCs and WWTP specific POCs. Samples should be 24-hour composite samples unless sampling methods only allow for grab samples.
Note: residential and commercial sample point(s) represent the uncontrolled source.

4.5.1 Seasonal and Other Sampling Considerations

DOH required that, in the generation of the data used for local limits development, seasonal and other sampling considerations be taken into considerations. The data must:

- Depict the plant under typical operating conditions
- Represent multiple days throughout the year
- Account for hydraulic retention times within the treatment plant and collection system
- Represent seasonal variation

DOH's recommendation for the local limits evaluation was to collect samples over ten consecutive days during the typical wet and dry seasons for a total twenty days of sampling. To determine the best wet and dry sampling months, the evaluation used precipitation data from weather stations near the WWTP. All sampling considerations listed above were employed during local limits sampling.

4.5.2 Plan of Study Sampling Frequency

Based on the EPA Local Limits Development Guidance Document, the recommended sampling frequencies for developing local limits were determined and are presented in Table 4-3, *Plan of Study Sampling Frequencies*, below.

Table 4-3: Plan of Study Sampling Frequencies

Parameter	Influent	Effluent	Biosolids	Uncontrolled	SIU**	HW***
Organic Priority Pollutants including PFAS, EPA 608, 624, 625, and 537.1	2*	2*	1	2*	1	1
Inorganic Plan of Study POCs	10*	10*	1	7*	1	1
40 CFR 503 Pollutants and Percent Solids, Metals	10*	10*	1	7*	1	1
TCLP Pollutants	0	0	1	0	0	0
*Per sampling event for typical wet season and dry season. **One sample was collected from each SIU during the wet season sampling event for all listed parameters. ***One sampling event for each sampled hauled waste (HW) during the dry season for all listed parameters.						

4.6 Sampling Dates

4.6.1 Influent Sampling Dates

Samples were collected on consecutive days at the WWTP.

Table 4-4: Influent Sampling Dates – February 18-27 and June 10-19, 2021

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
Influent	2/17/2021	6/9/2021	<ul style="list-style-type: none"> ● Setting up of sampler ● Collection of equipment blanks for all bottle types prior to collecting first sample (not including organic priority pollutants or PFAS)
Influent	2/18/2021	6/10/2021	<ul style="list-style-type: none"> ● Collection of first samples ● 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples ● Replacement of autosampler bottle with glass container after collecting day 1 in preparation for day 2 organic sampling. ● Changing battery and restarting of program.
Influent	2/19/2021	6/11/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/20/2021	6/12/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/21/2021	6/13/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/22/2021	6/14/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/23/2021	6/15/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replacing autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/24/2021	6/16/2021	<ul style="list-style-type: none"> ● 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle with glass container after collecting day 7 in preparation for day 8 organic sampling. ● Changing battery and restarting of program.
Influent	2/25/2021	6/17/2021	<ul style="list-style-type: none"> ● 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/26/2021	6/18/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples.

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
			<ul style="list-style-type: none"> ● Replace autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Influent	2/27/2021	6/19/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Changing battery and restarting of program.

4.6.2 Effluent Sampling Dates

Effluent samples are collected one hydraulic retention time (HRT) after the influent sample (where the calculated HRT was 9 hours). These samples are collected on consecutive days at the WWTP.

Table 4-5: Effluent Sampling Schedule – February 18-27 and June 10-19, 2021

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
Effluent	2/17/2021	6/9/2021	<ul style="list-style-type: none"> ● Setting up of sampler ● Collection of equipment blanks for all bottle types prior to collecting first sample.
Effluent	2/18/2021	6/10/2021	<ul style="list-style-type: none"> ● Collection of first samples ● 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples ● Replacement of autosampler bottle with glass container after collecting day 1 in preparation for day 2 organic sampling. ● Changing battery and restarting of program.
Effluent	2/19/2021	6/11/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacement of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/20/2021	6/12/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/21/2021	6/13/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/22/2021	6/14/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
Effluent	2/23/2021	6/15/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replacing autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/24/2021	6/16/2021	<ul style="list-style-type: none"> ● 17 inorganic POCs and HEM collected. Cyanide and HEM are grab samples. ● Replacing of autosampler bottle with glass container after collecting day 7 in preparation for day 8 organic sampling. ● Changing battery and restarting of program.
Effluent	2/25/2021	6/17/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replacing of autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/26/2021	6/18/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Replace autosampler bottle (Glass or Plastic) ● Changing battery and restarting of program.
Effluent	2/27/2021	6/19/2021	<ul style="list-style-type: none"> ● All 17 inorganic POCs and HEM collected. Note: Cyanide and HEM are grab samples. ● Changing battery and restarting of program.

4.6.3 Uncontrolled Sources Sample Points

Table 4-6: Uncontrolled Sources Sampling Dates – February 19-25 and June 12-18, 2021

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
Uncontrolled	2/17/2021	6/11/2021	<ul style="list-style-type: none"> ● Set up of Sampler on Day 0 (Zero) ● Collection of equipment blanks for all bottle types prior to collecting first sample (not including organic priority pollutants or PFAS)
Uncontrolled	2/18/2021	6/12/2021	<ul style="list-style-type: none"> ● Collection of first samples on Day 1 ● Changing battery and restarting of program.
Uncontrolled	2/19/2021	6/13/2021	<ul style="list-style-type: none"> ● Collection of composite and grab samples ● Changing battery and restarting of program.
Uncontrolled	2/20/2021	6/14/2021	<ul style="list-style-type: none"> ● Collection of composite and grab samples. ● Changing battery and restarting of program.
Uncontrolled	2/21/2021	6/15/2021	<ul style="list-style-type: none"> ● Collection of composite and grab samples. ● Changing battery and restarting of program.
Uncontrolled	2/22/2021	6/16/2021	<ul style="list-style-type: none"> ● Collection of composite and grab samples. ● Changing battery and restarting of program.

Location	Wet Season/ February Sampling Dates	Dry Season/ June Sampling Dates	Activities
Uncontrolled	2/23/2021	6/17/2021	<ul style="list-style-type: none"> Collection of composite and grab samples. Changing battery and restarting of program.
Uncontrolled	2/24/2021	6/18/2021	<ul style="list-style-type: none"> Collection of composite and grab samples. Changing battery and restarting of program.

Sample collection for EPA Methods 624 (Grab), 625 and 608 (Composite), and EPA 537.1 (Grab) parameters were collected on two separate days for both the wet season and dry season sampling events.

4.6.4 Hauled Waste Sample Points

One Type 1 hauled waste sample was collected on June 17, 2021 during the wet weather local limits sampling event from a waste hauler (JNR). This waste hauler manages both Type 1 and the Type 3 hauled wastes.

One Type 3 waste sample was collected on June 17, 2021 during the wet weather local limits sampling event from CCH-ENV-Refuse Division Kappa Landfill.

4.6.5 SIU Sources Sample Points

Table 4-7: SIU Sources Sampling Dates – During Sampling Period

SIU	Sampling Day
Coca Cola	2/25/2021
Dust-Tex	2/24/2021
ITOEN	2/24/2021
Pacific Biodiesel (PBD)	2/22/2021
Pacific Environmental Company (PENCO)	2/23/2021
Steiner (ALSCO)	2/24/2021
United Laundry-Alahao Place	2/22/2021
United Laundry-Hoonee Place	2/23/2021
Waikiki Aquarium	2/24/2021

One grab sample was collected from each of the SIUs during the wet season sampling period for Organic Priority Pollutants including EPA Methods 624, 625, 608, and 537.1 parameters, Inorganic Plan of Study POCs, 40 CFR 503 Pollutants, and Metals.

5.0 DETERMINATION OF FLOWS FOR LOCAL LIMITS DEVELOPMENT

The influent and effluent flows and biosolids production were derived from information provided by the WWTP. Currently, nine existing permitted SIUs, one potential SIU and 39 waste haulers discharge to the WWTP.

Influent flows to the facility in 2020 averaged 59.8 million gallons per day (MGD). For conventional pollutants BOD₅ and TSS, daily WWTP flows over the period of January through June 2021 were used, resulting in an average facility influent flow of 54.4 MGD and an average facility effluent flow of 58.5

MGD. This WWTP influent and effluent flow period was selected to further support DOH's recommendation to use data representative of seasonal variation.

The average industrial user flow to the WWTP in 2020 was 0.54753 MGD (0.47291 MGD (corresponding to permitted SIU flows reported in the 2020 PAAR) plus 0.07620 MGD (the flows of the new SIU Waikiki Aquarium, discharging to the WWTP as an uncontrolled in 2020, and until their IWD permit was issued by the City on February 5, 2021). The City is currently in the process of issuing an IWD permit to the State Department of Transportation (DOT) Consolidated Car Rental Facility (Airport Carwash) for its car washing operations. This facility has the potential to discharge a considerable volume of process wastewater to the WWTP with an estimated average daily flow of 0.074840 MGD. Adding the Airport Carwash and the Waikiki Aquarium flows to the SIU flows reported in the 2020 PAAR yield a total SIU average daily flow of 0.62237 MGD. This total SIU average daily flow was used in the calculation of the flow for the uncontrolled source and in the calculation of the uniform concentrations for the local limits.

The uncontrolled source flows were estimated by subtracting the SIU average daily flows of 0.62237 MGD (the 2020 PAAR SIU flows plus the flows of Waikiki Aquarium and the Airport Carwash) from WWTP influent average daily flows. Given concerns that wastewater flows may be skewed in 2020 associated with the pandemic, the average daily WWTP influent flow of 56.6 MGD was used, calculated from the period of January 2019 through June 2021. The expanded period of January 2019 through June 2021 provides flow data for a 1 year period prior to the pandemic through June 2021, the end of the local limits sampling period.

Type 1 hauled waste flows were calculated from the waste hauler disposal records for the year 2020. The total quantity of Type 1 waste disposed of was 0.189238 MG, corresponding to an average daily flow of 0.000518 MGD. Table 5-1, *Local Limits Development Flows Summary*, lists the influent, effluent, and biosolids flows, and the estimated uncontrolled source, SIU, and Type 1 hauled waste flows used in the 2022 Study.

Table 5-1: Local Limits Development Flows Summary

Flow Type	Rate	Unit	Flow Data / Period Source	Significance
Influent Flow	59.8	MGD	2020 average daily influent flow (per PAAR)	Point of reference; flow reported to DOH in 2020 PAAR
Influent Flow	Varies	MGD	Daily influent flow recorded on day of sample collection	Flow value used in all local limits calculations, unless specified otherwise, for all POCs except BOD ₅ and TSS
Influent Flow	54.4	MGD	January – June 2021 average daily influent flow	Flow value used in BOD ₅ and TSS calculations
Influent Flow	56.64	MGD	January 2019-June 2021 average daily influent flow	Flow value used in uncontrolled source loading calculation. This influent flow time period provides additional period prior to and after the 2020 pandemic, to mitigate atypical flow occurrences during pandemic.
Effluent Flow	61.5	MGD	January 2019-June 2021 average daily effluent flow	Point of reference for effluent flow in this period.
Effluent Flow	58.5	MGD	January – June 2021 average daily effluent flow	Flow used in BOD ₅ and TSS calculations
Effluent Flow	Varies	MGD	Daily effluent flow recorded on day of sample collection	Flow value used in all local limits calculations, unless specified otherwise, for all POCs except BOD ₅ and TSS
2020 Total SIU Flow	0.54753	MGD	2020 average daily SIU flows (= SIU flows per PAAR plus pending 2021 SIU* flows)	All known and pending SIU flow in 2020 is used to calculate SIU pollutant loading. If no new or pending SIUs, this flow value is used for local limits calculations
New SIU Flow*	0.07484	MGD	New pending 2022 SIU average daily flows**	New pending 2022 SIU flows are added to 2020 Total SIU flow value to calculate Total Current SIU flows for 2022 local limits calculations.
Total Current SIU Flow	0.62237	MGD	Total SIU flows with all 2020, 2021 and pending 2022 SIU flow sources combined	SIU flow value used for individual POC local limits calculations and uncontrolled source flow calculation
Uncontrolled Flow	56.02	MGD	= [(January 2019 – June 2021 influent flow) - (Total Current SIU Flow)]	Flow value used for uncontrolled source loading and MAIL calculations. This WWTP influent flow time period provides additional period prior to and after the 2020 pandemic, to mitigate atypical flow occurrences during pandemic.
Average Biosolids Production Type 1 Hauled Waste Flow	6,811	Kg/Day	2020 biosolids flows reported by Synagro and the City	Flows used for MRE and biosolids pollutant loading calculations.
	0.000518	MGD	2020 average daily flow, based on total flow disposed by Type 1 waste haulers in 2020.	Flows used for Type 1 hauled waste pollutant loading and MAIL calculations.

* The Waikiki Aquarium was a potential SIU, discharging as an uncontrolled source in 2020 and issued an IWD permit effective February 5, 2021.

** The Airport Carwash is a potential SIU that will be issued an IWD Permit in 2022. This user's average daily flows were added to existing permitted SIU flows for this local limits evaluation.

6.0 LOCAL LIMITS SAMPLING AND DATA RESULTS AND WWTP POLLUTANT REMOVAL CALCULATIONS

The Study reviewed all available data to identify POCs. The list included the 15 EPA POCs as well as POCs identified by reviewing criteria for influent inhibition, effluent water quality standards, and biosolids reuse criteria. The Study identified 20 POCs and they are presented in Table 3-4: *Sand Island Final Study Pollutants of Concern*, presented in Section 3.4. All local limits samples were analyzed for the POCs identified in Table 3-4, and the associated analytical data evaluated for additional POCs. No additional POCs were identified from the local limits sampling data evaluated.

6.1 Local Limits Sampling Data Summary

Sampling for the local limits evaluation was performed in February 2021 for the wet season and in June 2021 for the dry season. All sampling and analyses were in accordance with 40 CFR Part 136 and the Plan of Study.

The uncontrolled, influent, and effluent results are summarized in Appendices A, B, and C. Table 6-2, *Table 6-2, Wet Season Sampling Summary - Data Average, Maximum, and Pollutant Detections* and in Table 6-3, *Dry Season Sampling Summary - Data Average, Maximum, and Pollutant Detections*, are presented below.

A review of WWTP influent, effluent, and the uncontrolled source sample data was performed and are presented below.

A summary of the local limits influent data results is presented in Table 6-4, *Influent Results and Averages*. A review of the WWTP influent sampling data for seasonal trends identified the following observations:

- no seasonal fluctuations were observed for POCs Cadmium, Chlordane, Dieldrin, and TPH (which were not detected above the MDL), and Arsenic, Molybdenum, Selenium, Silver, and Oil and Grease.
- the POCs with higher concentrations observed during the wet weather season included: Chromium, Lead, Mercury, Nickel, PFOS, and TSS.
- the POCs with higher concentrations observed during the dry weather season included: Ammonia-Nitrogen, BOD₅, Copper, PFOA, Surfactants, and Zinc.

A summary of the local limits effluent data results is presented in Table 6-5, *Effluent Results and Averages*. A review of the WWTP effluent sampling data for seasonal trends identified the following observations:

- no seasonal fluctuations were observed for POCs Cadmium, Chlordane, Dieldrin, and Mercury (which were not detected above the MDL), and Lead, Oil and Grease, PFOA, Selenium, Silver, and TPH.
- the POCs with higher concentrations observed during the wet weather season included PFOS and TSS.
- the POCs with higher concentrations observed during the dry weather season included: Ammonia-Nitrogen, Arsenic, BOD₅, Chromium, Copper, Molybdenum, Nickel, Surfactants and Zinc.

A review of the uncontrolled source sampling data for seasonal trends identified the following observations:

- no seasonal fluctuations were observed for POCs Cadmium, Chlordane, Dieldrin, Silver (which were not detected above the MDL), and TPH.
- the POCs with higher concentrations observed during the wet weather season included: BOD₅, Mercury, Molybdenum, PFOS, and TSS.
- the POCs with higher concentrations observed during the dry weather season included: Ammonia-Nitrogen, Arsenic, Chromium, Copper, Lead, Nickel, Oil and Grease, PFOA, Selenium, Surfactants and Zinc.

A “detected” result means that the sample result reported by the lab is greater than the MDL.

The following criteria was applied to MRE average calculations, per the EPA Local Limits Guidance Manual:

- For data reported < MDL, the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
- For data reported between the MDL and the Reporting Limit (RL; as identified with the use of a “J” qualifier next to the lab data report), the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
- For data reported < EPA ML, the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
- For data results reported above the EPA ML, average data calculation used the stated reported value.

Table 6-1: Wet Season Sampling Summary - Data Average, Maximum, and Pollutant Detections

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
EFF	Ammonia, Nitrogen	10	10	17,360	24,700	EPA POC
INF		10	10	16,210	18,800	
UNC		7	7	15,029	18,300	
SIUs		10	9	11,631	104,000	
Waste Haulers		0	0	NS	NS	
EFF*	Arsenic*	10	9	1.167*	1.400*	EPA POC
INF		10	10	1.500	1.9000	
UNC		7	7	1.086	1.400	
SIUs		10	4	0.89	3.800	
Waste Haulers		0	0	NS	NS	
EFF	BOD ₅	10	10	96,790	143,000	EPA POC/ NPDES Permit Limit/ Existing
INF		10	10	155,800	216,000	
UNC		7	7	115,357	157,000	
SIUs		10	9	547,369	4,070,000	
Waste Haulers		0	0	NS	NS	
EFF	Cadmium*	10	0	0.318	0.318	EPA POC
INF		10	0	0.318	0.318	
UNC		7	0	0.118	0.263	
SIUs*		9	0	0.318*	0.300*	
Waste Haulers		0	0	NS	NS	
EFF	Chlordane	3	0	5.14	7.95	DOH Requested POC
INF		3	0	3.286	3.498	
UNC		2	0	2.464	3.180	
SIUs*		10	0	4.11	13.67	
Waste Haulers		0	0	NS	NS	
EFF	Chromium*	10	10	2.171	3.000	EPA POC
INF*		10	9	4.82*	7.30*	
UNC		7	7	3.114	5.100	
SIUs		10	8	4.94	14.6	
Waste Haulers		0	0	NS	NS	
EFF	Copper*	10	10	12.070	19.400	EPA POC
INF*		10	9	27.3*	34.8*	
UNC		7	7	12.91	32.60	
SIUs		10	8	41.75	134.10	
Waste Haulers		0	0	NS	NS	
EFF	Cyanide, Total	10	0	9.54	9.54	EPA POC
INF		10	0	9.54	9.54	
UNC		7	0	9.54	9.54	
SIUs		10	2	18.63	64.0	
Waste Haulers		0	0	NS	NS	
EFF	Dieldrin	3	0	0.053	0.0636	

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
INF		3	0	0.2332	0.318	DOH Requested POC
UNC		2	0	0.02862	0.0318	
SIUs		10	0	0.101	0.318	
Waste Haulers		0	0	NS	NS	
EFF	Lead	10	0	0.636	0.636	EPA POC
INF		10	8	2.48	5.00	
UNC		7	0	0.636	0.636	
SIUs		10	3	2.90	15.9	
Waste Haulers		0	0	NS	NS	
EFF*	Mercury*	10	0	0.027*	0.027*	EPA POC
INF		10	6	0.199	0.480	
UNC		7	1	0.042	0.078	
SIUs		10	1	0.05	0.210	
Waste Haulers		0	0	NS	NS	
EFF*	Molybdenum*	10	9	2.989*	3.700*	EPA POC
INF**		10	8	3.53*	5.00*	
UNC		7	6	1.897	3.900	
SIUs		10	6	8.72	57.70	
Waste Haulers		0	0	NS	NS	
EFF	Nickel	10	5	2.627	6.000	EPA POC
INF		10	8	5.10	8.9	
UNC		7	4	2.234	4.200	
SIUs		10	8	16.51	69.10	
Waste Haulers		0	0	NS	NS	
EFF	Oil and Grease*	10	0	7,950	7,950	EPA POC
INF*		10	0	7,950*	7,950*	
UNC		7	6	18,793	28,100	
SIUs		10	3	19,185	80,900	
Waste Haulers		0	0	NS	NS	
EFF	PFOA	2	2	0.004	0.005	DOH Requested POC
INF		2	2	0.00470	0.00550	
UNC		2	2	0.0039	0.0042	
SIUs		10	3	0.0033	0.012	
Waste Haulers		0	0	NS	NS	
EFF	PFOS	2	2	0.021	0.021	DOH Requested POC
INF		2	2	0.02500	0.03400	
UNC		2	2	0.0047	0.0050	
SIUs		10	2	0.0048	0.024	
Waste Haulers		0	0	NS	NS	

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
EFF*	Selenium*	10	1	0.636*	0.636*	EPA POC
INF**		10	0	0.636*	0.636*	
UNC		7	1	0.7311	1.300	
SIUs		10	1	0.70	1.30	
Waste Haulers		0	0	NS	NS	
EFF	Silver*	10	0	0.47700	0.477	EPA POC
INF		10	0	0.477	0.477	
UNC		7	0	0.477	0.477	
SIUs*		9	0	0.477*	0.477*	
Waste Haulers		0	0	NS	NS	
EFF*	Surfactants*	10	9	4,860*	6,110*	TIE/TRE Review
INF		10	10	5,160	6,400	
UNC		7	7	3,979	4,340	
SIUs		10	10	8,744	59,400	
Waste Haulers		0	0	NS	NS	
EFF	TPH*	10	0	7,950	7,950	EPA POC
INF		10	0	7,950	7,950	
UNC		7	0	7,950	7,950	
SIUs*		9	0	7,950*	7,950*	
Waste Haulers		0	0	NS	NS	
EFF*	TSS*	10	9	55,667*	78,000*	EPA POC/ NPDES Permit Limit/Existing
INF		10	10	166,100	214,000	
UNC		7	7	113,571	148,000	
SIUs		10	9	55,759	214,000	
Waste Haulers		0	0	NS	NS	
EFF	Zinc*	10	8	25.8	48.00	EPA POC/ Existing
INF*		10	9	78.4*	107.4*	
UNC		7	6	37.71	66.00	
SIUs		10	7	118.19	326.6	
Waste Haulers		0	0	NS	NS	

NS = Not sampled or no data available.

Existing = Existing proposed local limit applies for the parameter.

Notes: A detected result is a result detected above the EPA ML. If the result was reported below the analytical method detection limit (MDL) or reported as a positive result between MDL and EPA ML, then ½ the EPA ML (where the EPA ML= 3.18*MDL) was applied for data averaging, as well as maximum value reporting (where applicable).

* Indicates the one (1) maximum Outlier Value was observed for the parameter at the specified sample point, and the value was excluded from average data calculation and use in maximum result reporting.

** Indicates the specified sample point observed two (2) maximum Outlier Values for the associated parameter and were excluded from average data calculation and use in maximum result reporting.

Note: Hauled Waste samples were collected in the Dry Weather sampling event.

Table 6-2: Dry Season Sampling Summary - Data Average, Maximum, and Pollutant Detections

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
EFF	Ammonia, Nitrogen	10	10	20,640	24,800	EPA POC
INF		10	10	21,120	24,100	
UNC		7	7	18,700	22,800	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	3,990	3,990	
EFF	Arsenic*	10	10	1.190	1.200	EPA POC
INF		10	10	1.400	1.500	
UNC*		6	6	1.317*	1.800*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	19.8	19.8	
EFF	BOD ₅ *	10	10	116,860	188,000	EPA POC/ NPDES Permit Limit/Existing
INF*		10	10	172,889*	193,000*	
UNC*		6	6	104,117*	138,000*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	307,000	307,000	
EFF	Cadmium	10	0	0.318	0.318	EPA POC
INF		10	0	0.32	0.32	
UNC		7	0	0.318	0.318	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	31.6	31.6	
EFF	Chlordane	1	0	1.026	1.367	DOH Requested POC
INF		2	0	3.498	3.498	
UNC		2	0	3.498	3.498	
SIUs		0	0	NS	NS	
Waste Haulers		1	0	6.837	6.837	
EFF	Chromium	10	10	2.610	3.500	EPA POC
INF		10	10	3.61	6.50	
UNC		7	7	6.129	10.800	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	224.3	224.3	
EFF	Copper	10	10	14.350	24.100	EPA POC
INF		10	10	28.7	35.1	
UNC		7	7	25.90	44.60	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	2,585.4	2,585.4	
EFF	Cyanide, Total	10	0	9.540	9.540	EPA POC
INF		10	0	9.5	10.0	
UNC		7	3	16.45	33.00	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	46.0	46.0	
EFF*	Dieldrin	2	0	0.0191	0.0254	

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
INF		2	0	0.0636	0.0636	DOH Requested POC
UNC		2	0	0.0636	0.0636	
SIUs		0	0	NS	NS	
Waste Haulers		1	0	0.1272	0.1272	
EFF*	Lead*	10	0	0.636*	0.636*	EPA POC
INF		10	4	0.98	1.80	
UNC		7	3	1.021	1.700	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	362.1	362.1	
EFF	Mercury*	10	0	0.027	0.027	EPA POC
INF		10	1	0.0607	0.120	
UNC*		7	1	0.036*	0.054*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	0.2600	0.2600	
EFF	Molybdenum*	10	10	3.570	4.200	EPA POC
INF		10	10	3.46	4.3	
UNC*		6	6	1.57*	2.00*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	73.0	73.0	
EFF	Nickel*	10	9	3.756	6.600	EPA POC
INF		10	10	3.23	3.90	
UNC*		7	7	4.97*	9.20*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	317.0	317.0	
EFF*	Oil and Grease*	10	0	7,950*	7,950*	EPA POC
INF		10	0	7,950	7,950	
UNC		7	7	23,714	27,900	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	226,000	226,000	
EFF	PFOA	2	2	0.004	0.005	DOH Requested POC
INF		2	2	0.0064	0.0068	
UNC		2	2	0.0043	0.0043	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	0.020	0.020	
EFF	PFOS	2	1	0.002	0.004	DOH Requested POC
INF		2	2	0.01450	0.01600	
UNC		2	1	0.0024	0.0041	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	0.011	0.011	
EFF	Selenium	10	0	0.636	0.636	EPA POC
INF		10	0	0.64	0.64	

SAMPLE POINT	ANALYTE	TOTAL SAMPLES	TOTAL DETECTED RESULTS	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)	POC
UNC		7	3	1.063	2.000	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	6.1	6.1	
EFF	Silver*	10	0	0.4770	0.4770	EPA POC
INF		10	0	0.4770	0.4770	
UNC*		6	0	0.4770*	0.4770*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	18.5	18.5	
EFF	Surfactants (MBAS)	10	10	5,560	6,480	TIE/TRE Review
INF		10	10	6,382	7,230	
UNC		7	7	5,901	7,900	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	203,000	203,000	
EFF	TPH	10	0	7,950	7,950	EPA POC
INF		10	0	7,950	7,950	
UNC		7	0	7,950	7,950	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	105,000	105,000	
EFF	TSS*	10	10	41,200	49,000	EPA POC/ NPDES Permit Limit/Existing
INF		10	10	159,700	243,000	
UNC*		6	6	75,000*	114,000*	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	856,000	856,000	
EFF	Zinc	10	10	43.49	76.60	EPA POC/Existing
INF		10	10	87.9	98.0	
UNC		7	7	120.6	237.7	
SIUs		0	0	NS	NS	
Waste Haulers		1	1	11,557	11,557	

NS = Not sampled or no data available.

Existing = Existing proposed local limit applies for the parameter.

Notes: A detected result is a result detected above the EPA ML. If the result was reported below the analytical method detection limit (MDL) or reported as a positive result between MDL and EPA ML, then ½ the EPA ML (where the EPA ML= 3.18*MDL) was applied for data averaging, as well as maximum value reporting (where applicable).

* Indicates the one (1) maximum Outlier Value was observed for the parameter at the specified sample point, and the value was excluded from average data calculation and used in maximum result reporting.

Note: One (1) of two (2) total HW sample point results (for all pollutants) was excluded due to sample being sourced from a Type 3 waste hauler, and the associated wastewater is not domestic in nature (i.e., not Type 1 wastewater). Therefore, the average result is equal to the maximum result for the single HW sample data reporting presented in this table.

Note: All SIU samples were collected during the wet weather sampling event.

Table 6-3: Influent Results and Averages

Analyte	Units	Influent - Wet Weather Sampling Event Date Results (February 18-27, 2021)											Influent - Dry Weather Event Sampling Date Results (June 10-19, 2021)											Average Results
		2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27	Wet Average	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	Dry Average	
Ammonia-N	mg/L	13.9	14.6	15.6	18.8	15.3	15.4	17.6	15.7	18.5	16.7	16.21	22.5	23.3	20.8	22.8	24.1	23.0	22.2	18.8	15.7	18	21.120	18.665
Arsenic	mg/L	0.0015	0.0014	0.0014	0.0014	0.0013	0.0011	0.0018	0.0016	0.0016	0.0019	0.0015	0.0014	0.0014	0.0015	0.0014	0.0013	0.0014	0.0013	0.0015	0.0014	0.0014	0.0014	0.00145
BOD ₅	mg/L	216	141	137	147	145	190	110	129	191	152	155.8	178	177	185	126	187	542**	193	154	169	187	172.89	163.895
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000318	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00032	0.000318
Chlordane	µg/L	NS	ND	NS	NS	NS	NS	ND	ND	NS	NS	3.29	NS	NS	NS	NS	ND	ND	NS	NS	NS	NS	3.50	3.371
Chromium	mg/L	0.0046	0.0050	0.0199**	0.0037	0.0028	0.0027	0.0045	0.0062	0.0073	0.0066	0.00482	0.0037	0.0031	0.0032	0.0029	0.0031	0.0032	0.0035	0.0036	0.0065	0.0033	0.00361	0.00418
Copper	mg/L	0.0270	0.0275	0.0292	0.0204	0.0191	0.0254	0.0301	0.0348	0.0324	0.0580**	0.0273	0.0278	0.0245	0.0295	0.0246	0.0255	0.0274	0.0341	0.0351	0.0322	0.0264	0.0287	0.02805
Cyanide, Total	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00954	0.014	0.021**	ND	0.009	0.012	ND	0.013	ND	0.006	ND	0.0095	0.00954
Dieldrin	µg/L	NS	ND	NS	NS	NS	NS	ND	ND	NS	NS	0.2332	NS	NS	NS	NS	ND	ND	NS	NS	NS	NS	0.0636	0.17
Lead	mg/L	0.0046	0.0050	0.0033	0.0014	0.0012	0.0009	0.0029	0.0023	0.0019	0.0021	0.00248	0.0018	0.0010	0.0014	0.0009	0.0008	0.0012	0.0013	0.0015	0.0012	0.0012	0.00098	0.00173
Mercury	µg/L	0.350	0.370	0.480	0.068	ND	0.150	0.680	0.180	ND	0.240	0.199	ND	ND	ND	ND	ND	ND	0.1	0.12	ND	ND	0.0607	0.13
Molybdenum	mg/L	0.0038	0.0039	0.0033	0.0028	0.0027	0.0031	0.0036	0.0050	0.0221**	0.0076**	0.0035	0.0037	0.0035	0.0035	0.0033	0.0030	0.0032	0.0030	0.0043	0.0034	0.0037	0.00346	0.00349
Nickel	mg/L	0.0041	0.0058	0.0089	0.0044	0.0019	0.0016	0.0046	0.0055	0.0077	0.0078	0.0051	0.0035	0.0029	0.0030	0.0026	0.0029	0.0033	0.0039	0.0035	0.0037	0.0030	0.00323	0.00417
Oil and Grease	mg/L	14.6	21.7**	9.84	11.1	9.35	12.4	10.2	11.5	10.6	10.5	7.950	11.5	9.46	10	7.87	14.5	13.7	10.6	13.7	11.2	9.89	7.950	7.950
PFOA	ng/L	NS	NS	NS	NS	NS	NS	5.50	3.90	NS	NS	4.7	NS	NS	NS	NS	6	6.8	NS	NS	NS	NS	6.4	10.0
PFOS	ng/L	NS	NS	NS	NS	NS	NS	34	16	NS	NS	25.0	NS	NS	NS	NS	13	16	NS	NS	NS	NS	14.5	20.0
Selenium	mg/L	0.0008	0.0009	0.0009	0.0008	0.0009	0.0009	0.0008	0.0011	0.0013**	0.0014**	0.00064	0.0010	0.0012	0.0009	0.0008	0.0009	0.0010	0.0010	0.0008	0.0008	0.0008	0.00064	0.00064
Silver	mg/L	0.0007	ND	0.0007	ND	ND	ND	ND	0.0009	ND	0.0008	0.000477	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000477	0.00048
Surfactants	mg/L	5.01	4.98	6.40	5.51	5.79	4.47	4.58	5.41	4.72	4.73	5.160	5.99	5.17	5.9	6.54	6.87	6.29	6.82	6.91	7.23	6.1	6.382	5.771
TPH	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.95	7.950
TSS	mg/L	169	214	158	145	150	125	167	181	196	156	166.1	243	156	166	89	170	154	201	177	85	156	159.7	162.9
Zinc	mg/L	0.0852	0.0813	0.0804	0.0605	0.0591	0.0522	0.0932	0.0867	0.1544**	0.1074	0.078	0.0950	0.0861	0.0937	0.0839	0.0805	0.0979	0.866	0.0932	0.0793	0.0832	0.0879	0.08344

Key: NS = Not Sampled; No data result available.

ND = Not Detected above the EPA ML; If the result was reported below the analytical method detection limit (MDL) or reported as a positive result between MDL and EPA ML, then ½ the EPA ML (where the EPA ML= 3.18*MDL) was applied for data averaging, as well as maximum value reporting.

The arithmetic mean (average) of all results was used.

** = Outlier Value: The result presented was more than 2 times the standard deviation (SD) from the arithmetic mean and therefore, it was determined to be an outlier and excluded from data averaging.

Table 6-4: Effluent Results and Averages

Analyte	Units	Effluent - Wet Weather Sampling Event Date Results (February 18-27, 2021)											Effluent - Dry Weather Event Sampling Date Results (June 10-19, 2021)											Average Results
		2/18	2/19	2/20	2/21	2/22	2/23	2/24	2/25	2/26	2/27	Wet Average	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	Dry Average	
Ammonia-N	mg/L	14.3	14.7	14.9	17.9	14.7	24.7	20.8	17.8	17.4	16.4	17.360	22.7	22	18.7	23.8	19.7	24.8	23.5	18.1	16.5	16.6	20.640	19.00
Arsenic	mg/L	0.0012	0.0011	0.0010	0.0011	0.0010	0.0010	0.0016**	0.0014	0.0013	0.0014	0.001167	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0011	0.0012	0.0012	0.001190	0.001179
BOD ₅	mg/L	137	114	71.0000	109.0000	74.7	143	79.6	38.6	125	76.0	96.790	119	99.7	108	93.2	116	188	108	95.7	131	110	116.860	106.825
Cadmium	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000318	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00318	0.000318
Chlordane	µg/L	NS	ND	NS	NS	NS	ND	ND	NS	NS	NS	5.141	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.367	4.198
Chromium	mg/L	0.0020	0.0018	0.0019	0.0021	0.0017	0.0019	0.0028	0.0030	0.0024	0.0021	0.002171	0.0035	0.0026	0.0028	0.0031	0.0023	0.0022	0.0026	0.0021	0.0024	0.0025	0.002610	0.00239
Copper	mg/L	0.0089	0.0088	0.0075	0.0093	0.0087	0.0082	0.0175	0.0146	0.0194	0.0178	0.012070	0.0148	0.0131	0.0150	0.0130	0.0241	0.0122	0.0115	0.0115	0.0138	0.0145	0.014350	0.01321
Cyanide, Total	mg/L	ND	ND	ND	ND	ND	0.00900	ND	ND	ND	ND	0.009540	0.01	0.009	0.007	0.013	ND	0.009	0.01	ND	0.008	ND	0.009540	0.00954
Dieldrin	µg/L	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	0.053	NS	NS	NS	NS	ND	ND	NS	NS	NS	NS	0.019	0.04
Lead	mg/L	0.0008	0.0009	0.0006	ND	ND	ND	0.0008	0.0009	0.0008	0.0007	0.000636	0.0004	ND	ND	ND	0.0020**	ND	0.0004	ND	0.0004	0.0005	0.000636	0.00064
Mercury	µg/L	0.0900**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.027	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.027	0.03
Molybdenum	mg/L	0.0035	0.0037	0.0024	0.0025	0.0028	0.0027	0.0030	0.0032	0.0078**	0.0031	0.002989	0.0038	0.0039	0.0035	0.0036	0.0034	0.0033	0.0033	0.0042	0.0031	0.0036	0.003570	0.00329
Nickel	mg/L	0.0016	0.0016	0.0022	0.0027	0.0012	0.0014	0.0060	0.0031	0.0051	0.0038	0.002627	0.0066	0.0036	0.0040	0.0041	0.0128**	0.0024	0.0035	0.0029	0.0032	0.0035	0.003756	0.00316
Oil and Grease	mg/L	10.10	12.5	5.5000	6.5600	5.31	6.73	8.44	5.61	6.67	7.47	7,950	10.9**	7.89	5.68	9.58	9.1	9.22	7.89	8	8.4	8.53	7.950	7.950
PFOA	ng/L	NS	NS	NS	NS	NS	4.60	4.10	NS	NS	NS	4.35	NS	NS	NS	NS	4.1	4.5	NS	NS	NS	NS	4.30	4.33
PFOS	ng/L	NS	NS	NS	NS	NS	21.0	20.0	NS	NS	NS	20.5	NS	NS	NS	NS	ND	3.7	NS	NS	NS	NS	2.30	11.4
Selenium	mg/L	0.0005	0.0060**	0.0005	0.0006	0.0005	0.0002	0.0005	0.0006	0.0009	0.0008	0.000636	0.0008	0.0007	0.0008	0.0006	0.0008	0.0008	0.0007	0.0007	0.0007	0.0006	0.000636	0.000636
Silver	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000477	0.0008	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000477	0.00048
Surfactants	mg/L	3.36	4.3	6.0600	6.1100	6.05	50.5**	4.27	4.15	4.58	4.86	4.860	6.48	4.41	5.29	5.84	5.83	5.21	5.47	5.53	6.02	5.52	5.560	5.282
TPH	mg/L	ND	ND	ND	ND	ND	ND	ND	6.74	ND	ND	7.950	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.950	7.950
TSS	mg/L	65.0	103**	39.0000	56.0000	46.0	49.0	45.0	62.0	61.0	78.0	55.667	37	43	33	46	49	44	45	40	44	31	41.200	48.052
Zinc	mg/L	0.0167	0.0181	0.0208	0.0209	0.0232	0.0162	0.0382	0.0342	0.0480	0.0371	0.0258	0.0390	0.0370	0.0362	0.0368	0.0766	0.0386	0.0326	0.0289	0.0416	0.0676	0.0435	0.0346

Key: NS = Not Sampled; No data result available.

ND = Not Detected above the EPA ML; If the result was reported below the analytical method detection limit (MDL) or reported as a positive result between MDL and EPA ML, then ½ the EPA ML (where the EPA ML= 3.18*MDL) was applied for data averaging, as well as maximum value reporting.

—Note - The 2/25/21 effluent value for TPH and the 2/18/21 and 6/10/21 effluent values for Silver were reported above the MDL but were below the EPA ML (3.18*MDL) and ½ the EPA ML was used for data averaging.

**OUTLIER: The result presented was more than 2 times the standard deviation (SD) from the arithmetic mean and therefore, it was determined to be an outlier and excluded from data averaging.

6.2 Removal of Pollutants in Local Limits Evaluation

6.2.1 Detected Pollutants Excluded from Local Limits Evaluation

The local limits sampling detected several pollutants, besides the initial POCs, which required additional review. Table 6-5, *Detected Results Removed from Local Limits Evaluation*, lists the pollutants that were not included in the evaluation of MAHL, MAIL and local limits, for reasons specified below.

Table 6-5: Detected Results Removed from Local Limits Evaluation

Sample Point Detected	Analyte	Reason Not Evaluated
EFF, SIU, EQB	2-Butanone	No Standard Applies for Effluent
SIU	2-Hexanone	No Standard Applies for Eff, No Eff Detections
INF, EFF, HW, SIU	6:2 FTS	No Standard Applies for Effluent
SIU	8:2 FTS	No Standard Applies for Eff, No Eff Detections
INF, EFF, UNC, SIU, EQB	Acetone	No Standard Applies for Effluent
EFF, UNC	Arsenic	(1) EFF Wet Weather Outlier Value Only (1) UNC Dry Weather Value Only
INF, UNC	BOD ₅	(1) INF Dry Weather Outlier Value Only (1) UNC Dry Weather Outlier Value Only
SIU	Bromodichloromethane	No influent or Effluent Detections
SIU	Bromoform	No influent or Effluent Detections
SIU	Cadmium	(1) SIU Wet Weather Outlier Value Only
EFF, EQB, SIU	Carbon Disulfide	No Standard Applies for Effluent
EQB, SIU	Chloroform	No Standard Applies for Effluent
INF	Chromium	(1) INF Wet Weather Outlier Value Only
INF	Copper	(1) INF Wet Weather Outlier Value Only
INF	Cyanide	(1) INF Dry Weather Outlier Value Only
HW	EtFOSAA	No Standard Applies for Effluent
EFF	Lead	(1) EFF Dry Weather Outlier Value Only
SIU	MeFOSA	No Standard Applies for Effluent
SIU, UNC	MeFOSE	No Standard Applies for Effluent
EFF, UNC	Mercury	(1) EFF Wet Weather Outlier Value Only (1) UNC Dry Weather Outlier Value Only
INF, EFF, UNC	Molybdenum	(2) INF Wet Weather Outlier Values Only (1) EFF Wet Weather Outlier Value Only (1) UNC Dry Weather Outlier Result
EFF	Nickel	(1) EFF Dry Weather Outlier Value Only
EFF, INF	Oil and Grease	(1) EFF Dry Weather Outlier Value Only (1) INF Wet Weather Outlier Value Only
INF, EFF, UNC, HW, EQB, SIU	PFBA	No Standard Applies for Effluent
EFF, INF, SIU, UNC	PFBS	No Standard Applies for Effluent
SIU	PFDA	No Standard Applies for Eff, No Eff Detections
SIU, UNC	PFDaA	No Standard Applies for Effluent
INF, EFF, EQB, HW, SIU	PFHpA	No Standard Applies for Effluent
INF, EFF, UNC, SIU, HW	PFHxA	No Standard Applies for Effluent
EFF, INF, SIU, UNC	PFHxS	No Standard Applies for Effluent
INF, EFF, HW, SIU	PFNA	No Standard Applies for Effluent
INF, EFF, HW, SIU, UNC	PFPeA	No Standard Applies for Effluent
INF	PFPeS	No Standard Applies for Effluent
EFF, INF	Selenium	(1) EFF Wet Weather Outlier Value Only, (2) INF Wet Weather Outlier Values Only
UNC, SIU	Silver	(1) UNC Dry Weather Outlier Value Only,

Sample Point Detected	Analyte	Reason Not Evaluated
		(1) SIU Wet Weather Outlier Only
EFF	Surfactants	(1) EFF Wet Weather Outlier Value Only
UNC, EFF	TSS	(1) UNC Dry Weather Outlier Value Only, (1) EFF Wet Weather Outlier Value Only
SIU	TPH	(1) SIU Wet Weather Outlier Value Only
INF	Zinc	(1) INF Wet Weather Outlier Value Only

Key: INF = influent; EFF = effluent; UNC = uncontrolled source; HW = hauled waste; and EQB = equipment blank (sample points).
Outlier Value is defined as a data result that is more than 2 times the standard deviation (SD) from the arithmetic mean and therefore, it was determined to be an Outlier Value and excluded from data averaging and local limits evaluation of the MAHL and MAIL.

6.2.2 Non-detected Pollutants Excluded from Local Limits Evaluation

The two POCs, Chlordane and Dieldrin, were not detected in any influent, effluent, uncontrolled source, hauled waste or SIU sample collected during the two seasons of sampling. Considering that they were not detected and that neither is an EPA POC, a local limit was not calculated for Chlordane or Dieldrin. This is in accordance with the EPA Local Limits Development Guidance Manual.

6.3 Removal Efficiency Calculations

Removal efficiency is the fraction or percentage of the influent pollutant loading that is removed from the waste stream across an entire wastewater treatment works or specific wastewater treatment unit within the works. Removal efficiency values for each POC are fundamental inputs to MAHL calculations. There are three removal efficiency calculation methodologies commonly used in local limits evaluations. They are the decile method, mean removal efficiency method, the average daily removal efficiency method.

6.3.1 Decile Method

The decile method requires at least nine daily removal efficiency values based on paired sets of influent and effluent data. However, instead of averaging the daily removal efficiency values, the decile method sorts daily removal efficiency data from highest to lowest and calculates the percentage of the daily removal efficiency above or below a specified removal efficiency.

The EPA Local Limits Development Guidance Manual Section 5.1.2 indicates that although the decile removal efficiency calculation approach allows for a more comprehensive view of removal rates than the Average Daily Removal Efficiency (ADRE) and Mean Removal Efficiency (MRE) methods, an individual decile (pollutant removal efficiency) estimate, depending on how conservative the WWTP wants to be in establishing removal efficiencies, can be less precise than the MRE and ADRE estimates. Therefore, the decile method was not evaluated in this local limits evaluation, and only the MRE and ADRE calculations were used and discussed in the sections below.

6.3.2 MRE

The MRE method can be used with paired data (lagged for hydraulic retention time) as well as data that have not been lagged or paired. The MRE calculation, first, averages all plant influent values and all plant effluent values separately then calculates the removal efficiency across the entire wastewater treatment plant (using the average influent and average effluent data results). Paired influent and effluent samples are not necessary for this calculation, but the use of paired data in the MRE calculation is acceptable, per the EPA Local Limits Development Guidance Manual. The MRE is the preferred removal efficiency calculation recommended by the EPA if less than 10 complete sampling data sets are available for all sample points, per the EPA Local Limits Development Guidance Manual. Considering that not all pollutants

were sampled for 10 days or more, the MRE was selected as the pollutant removal efficiency calculation used in this local limits evaluation. The following criteria was applied to MRE average calculations:

- For data reported < MDL, the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
 - For data reported between the MDL and the Reporting Limit (RL; as identified with the use of a “J” qualifier next to the lab data report), the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
 - For data reported < EPA ML, the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
- For data results reported above the EPA ML, average data calculation used the stated reported value.

The formula below was used to calculate MRE:

MRE =	$\frac{\text{Influent Average Concentration} - \text{Effluent Average Concentration}}{\text{Influent Average Concentration}} \times 100$
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Note, the MRE may be calculated using paired influent and effluent sample results (with one hydraulic retention time between sample points).

6.3.3 ADRE

This method uses paired (lagged) influent and effluent data to derive the removal efficiency. Samples are lagged by the hydraulic residence time of wastewater within the treatment plant.

ADRE	=	$\frac{\sum (\text{INF}_n - \text{EFF}_n) / \text{INF}_n}{N}$	X 100
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Note, the ADRE is required to be calculated using paired influent and effluent sample results (with one hydraulic retention time between sample points).

Pursuant to the EPA Local Limits Development Guidance Manual, the following criteria was applied to ADRE average calculations:

- Influent and effluent average calculations used a surrogate value of ½ the EPA ML (= 3.18 X MDL) for results reported as less than the MDL.
- For data reported between the MDL and the Reporting Limit (RL; as identified with the use of a “J” qualifier next to the lab data report), the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).
- For data reported < EPA ML, the average data calculation used a surrogate value of ½ the EPA ML (= 3.18 X MDL).

For data results reported above the EPA ML, average data calculation used the stated reported value. The calculated influent to effluent WWTP pollutant removal efficiencies (for both the MRE and ADRE calculation results) are presented in Table 6-6, *Average Removal Efficiencies* below. Removal efficiencies were calculated using the MRE and ADRE methodologies strictly for the purpose of comparing the two methods since, ultimately, the MRE method, being the EPA’s preferred method was used for local limits calculations. As a note, pollutant removal efficiency results reported as a zero indicate the pollutant was detected in both the WWTP influent and effluent at the same pollutant concentration (or the detection

limits were the same for influent and effluent samples calculation). Also, pollutant removal efficiencies reported as a negative pollutant removal efficiency indicate that the pollutant concentration (or stated MDL value for pollutants not detected) was higher in the effluent than in the influent sample.

Table 6-6: Average Removal Efficiencies

Pollutant	Influent to Effluent Treatment Plant MRE	Influent to Effluent Treatment Plant ADRE
Arsenic	18.7%	17.3%
BOD ₅ *	36.87%	36.93%
Cadmium	0.0%	0.0%
Chromium	42.9%	36.6%
Copper	52.9%	53.3%
Cyanide, Total	0.0%	0.0%
Lead	63.2%	43.3%
Mercury	79.2%	60.6%
Molybdenum	5.6%	4.3%
Nickel	24.1%	11.9%
Nitrogen, Ammonia	-1.8%	-2.7%
Oil and Grease	0.0%	0.0%
PFOA	22.1%	19.2%
PFOS	42.3%	45.9%
Selenium	0.0%	0.0%
Silver	0.0%	0.0%
Surfactants	9.4%	10.1%
TPH	0.0%	0.0%
TSS*	75.98%	75.66%
Zinc	58.5%	59.6%

* For conventional pollutants BOD₅ and TSS, MRE and ADRE values were calculated using the data associated with the local limits wet weather and dry weather event sampling data, as well as from WWTP data collected during the period of January through June 2021. A review of this data indicated that higher % removal was observed using the January – June 2021 plant data, and these removal efficiencies are presented above.

6.4 Removal Efficiency Calculation Using Residuals

This method uses the mean values of residuals and influent data to determine an MRE. Residuals data can also be used to estimate removal efficiencies across the entire plant for the ADRE and MRE methods. Sludge (and associated biosolids production) data can be used in place of effluent data when there is inadequate effluent data above the detection level or residuals data can be demonstrated to provide more representative removal efficiencies.

The ADRE method was not used because it would require the influent pollutant concentrations to be monthly averages in order to be compared to residuals concentrations for pollutants that had accumulated for 20 to 30 days. The MRE method can be used to calculate removal efficiencies across the entire plant, R_{WRF} , by comparing the residuals and influent pollutant loading. The results are presented in *Table 6-7, Biosolids - Influent Removal Efficiency*, below.

Table 6-7: Biosolids - Influent Removal Efficiency

Parameter	Sludge Average Concentration (mg/Kg)	2020 Biosolids Production (Dry Metric Tons)	2020 Biosolids Average Daily Production (Kg/Day)	Sludge Pollutant Average Loading (lbs./Day)	Influent Average Concentration (mg/L)	Influent Pollutant Average Loading (Lbs./Day)	Influent-Biosolids % Removal
Arsenic	5.68	2,486	6,811	0.0852	0.00145	0.6379	13.36%
BOD ₅ *	NR			NR	141.36	63,119	NR
Cadmium	1.86			0.0279	0.00032	0.1395	19.99%
Chromium	69.2			1.038	0.00418	1.85	56.18%
Copper	436			6.54	0.0281	12.19	53.68%
Cyanide, Total	1.06			0.0159	0.00954	4.19	0.38%
Lead	32.8			0.492	0.00173	0.7665	64.24%
Mercury	2.06			0.0309	0.00013	0.0578	53.49%
Molybdenum	14.3			0.214	0.00349	1.52	14.12%
Nickel	33.5			0.503	0.00417	1.85	27.24%
Nitrogen, Ammonia	NR			NR	18.67	8,160	NR
Oil and Grease	NR			NR	7.95	3,483	NR
PFOA	0.00102			0.00002	0.0000056	0.0024	0.63%
PFOS	0.03500			0.0005	0.0000198	0.0087	6.07%
Selenium	3.70			0.056	0.00064	0.2763	20.12%
Silver	5.31			0.0797	0.00048	0.2092	38.07%
Surfactants	NR			NR	5.77	2,521	NR
TPH	NR			NR	7.95	3,487	NR
TSS*	NR			NR	143.8	64,400	NR
Zinc	1,323			19.9	0.0834	36.58	54.32%

Key: NR = Not Recorded; No data is available for reporting or calculation, due to pollutant not sampled.

* BOD₅ and TSS influent loading based on the uses of both local limits sampling data plus WWTP data and flows over the period January - June 2021.

The following formulas were used to calculate the Biosolids – Influent Removal Efficiency and associated inputs:

Kg/Day = Metric Tons* 1,000/365 Days

Sludge Pollutant (Lbs./Day) = Sludge Average Conc. (mg/Kg) X Biosolids Production (Kg/Day) X 1 Lb./454,000 mg

Influent (Lbs./Day) = Influent Concentration (mg/L) X Average Daily Influent Flow (MGD) X 8.34

% Removal = [(Influent Load – Estimated Effluent Load (INF-Biosolids)) / (Influent Load)] X 100

$$R_{\text{POTW}} = \frac{\text{Average Biosolids Loading}}{\text{Average Influent Loading}} \times 100$$

Where:

R_{POTW}	=	Plant removal efficiency from headworks
Average Sludge Loading (Lbs./Day)	=	$\frac{\text{Biosolids Average Volume (Kg/Day)} * \text{Biosolids Concentration (mg/Kg)}}{453,592.37}$

Average Influent Loading	=	Influent Concentration (mg/L) * 8.34 * Influent Flow (MGD)
8.34	=	Conversion Factor to pounds
453,592.37	=	Conversion from pound to mg

6.5 Residuals and Effluent Data MRE

This method uses the mean values of residuals and effluent data to determine an MRE. Removal efficiency can be calculated based on the assumption that, over time, the conservative pollutants (metals) influent loading is equal to the sum of the POTW's effluent and residuals pollutant loadings. The results are presented in *Table 6-8, Biosolids – Effluent Removal Efficiency*, below.

Table 6-8: Biosolids – Effluent Removal Efficiency

Parameter	Sludge Average Concentration (mg/Kg)	2020 Biosolids Production (Dry Metric Tons)	2020 Biosolids Average Production (Kg/Day)	Sludge Pollutant Average Loading (Lbs./Day)	Effluent Average Concentration (µg/L)	Average Daily Flow (MGD)	Effluent Average Loading (Lbs./Day)	Effluent-Biosolids % Removal
Arsenic	5.68	2,486	6,811	0.0852	1.179	59.8	0.562	13.2%
BOD ₅ *	NR			NR	89,242		42,965	NR
Cadmium	1.86			0.0279	0.3180		ALL ND	NR
Chromium	69.2			1.0385	2.391		1.138	47.7%
Copper	436			6.5428	13.21		6.302	50.9%
Cyanide, Total	1.06			0.0159	9.540		ALL ND	NR
Lead	32.8			0.4924	0.636		ALL ND	NR
Mercury	2.06			0.0309	0.027		ALL ND	NR
Molybdenum	14.3			0.2141	3.295		1.570	12.0%
Nickel	33.5			0.5028	3.161		1.508	25.0%
Nitrogen, Ammonia	NR			NR	19,000		9,045	NR
Oil and Grease	NR			NR	7,950		ALL ND	NR
PFOA	0.00102			0.00002	0.0043		0.00205	0.7%
PFOS	0.03500			0.00053	0.0114		0.00538	8.9%
Selenium	3.70			0.0556	0.636		ALL ND	NR
Silver	5.31			0.0797	0.477		ALL ND	NR
Surfactants	NR			NR	5,228		2,491	NR
TPH	NR			NR	7,950		ALL ND	NR
TSS*	NR			NR	34,532		16,923	NR
Zinc	1,323			19.87	34.64		16.52	54.6%

Key: NR = Not Recorded; No data is available for reporting or calculation, due to pollutant not sampled.

ND, Pollutant not detected above the MDL.

* BOD₅ and TSS effluent loading based on the uses of both local limits sampling data plus WWTP data and flows over the period January - June 2021.

The following formulas were used to calculate biosolids - effluent removal efficiency and related input data:

$$\text{Kg/Day} = \frac{\text{Metric Tons} \times 1,000}{365 \text{ Day}}$$

Biosolids Pollutant (Lbs./Day) = Biosolids Average Pollutant Conc. (mg/Kg) X Biosolids Production (Kg/Day) X (1 Lb/454,000 mg)

Influent Lbs./Day = Influent Concentration (mg/L) * Average Daily Flow (MGD) * 8.34

% Removal = Effluent Load - Estimated Effluent Load (INF-Biosolids) / Influent Load * 100

R_{POTW}	=	$\frac{\text{Average Sludge Loading}}{\text{Average Influent Loading}}$	X	100
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Where

R_{POTW}	=	Plant removal efficiency from headworks
Average Sludge Loading (Lbs./Day)	=	$\frac{\text{Biosolids Average Production Volume (Kg/Day)} \times \text{Biosolids Concentration (mg/Kg)}}{45,3592.37}$
Average Influent Loading (Lbs./Day)	=	Influent Pollutant Concentration (mg/L) X 8.34 X Influent Flow (MGD)
8.34	=	Conversion Factor to pounds
453,592.37	=	Conversion from pounds to mg

6.6 Selection of Removal Efficiency for Calculation of MAHLs

The site-specific pollutant removal efficiency values were used for all pollutants, with the exception of Cyanide, with the exception of the following:

- for Cyanide, the *EPA Local Limits Development Guidance Appendices⁽¹²⁾, Appendix R*, Primary Median MRE for the pollutant was used) and
- for Cadmium, Chromium, Molybdenum, Nickel, Selenium, Silver and Zinc, the [Influent – Biosolids] MRE was used.

As presented in Table 6.10, *Percent Removal Efficiency*, the site-specific calculated influent - effluent WWTP MRE was a negative value for Ammonia-Nitrogen and was zero for Cadmium, Cyanide, Oil and Grease, Selenium, Silver and TPH.

Low, zero and negative calculated pollutant removal efficiencies can be attributed to variations observed in influent and effluent wastewater sample concentrations, when effluent samples are detected at higher concentrations than influent samples. This is generally applicable to all pollutants, and specifically for Ammonia-Nitrogen in primary treatment). Cyanide results are often susceptible to false positive results attributed to wastewater interferences with sample preservatives. False positive results in effluent samples when the pollutant is not detected in influent samples can generate negative pollutant removal efficiencies

When the calculated pollutant removal performance by the WWTP for the given wastewater treatment process is lower than what is expected for that pollutant by the treatment process, the pollutant removal efficiencies stated in *EPA Local Limits Development Guidance, Appendix R* can be used to better characterize pollutant removal efficiency performance. The *EPA Local Limits Development Guidance, Appendix R* includes removal efficiency values for select priority pollutants for various WWTP unit processes.

The pollutant removal efficiencies presented in *Appendix R* are associated with EPA's review of the removal efficiencies reported by as many as 40 facilities in the United States and provides a high level of confidence of specific WWTP wastewater process pollutant removal performance. Considering the *EPA Local Limits Guidance Development Document, Appendix R* includes pollutant removal efficiency values

for Cyanide (for the primary wastewater treatment process), the *Appendix R* literature value for Cyanide was used in this local limits evaluation.

In summary, if an acceptable site-specific pollutant removal efficiency is available for a pollutant, it is used in lieu of the *EPA Local Limits Development Guidance, Appendix R* value. Considering this, the site-specific [influent – biosolids] WWTP MRE values were used for pollutants Cadmium, Chromium, Molybdenum, Nickel, Selenium, Silver and Zinc (pollutants with zero, negative or lower pollutant removal efficiencies as presented in Table 6.10).

A review of the percent removal efficiency calculated and selected for this local limits evaluation is presented in Table 6.10, *Percent Removal Efficiency*, below. A summary of the pollutant removal calculation used is summarized below.

- For WWTP influent inhibition, WWTP design, and biosolids AHL evaluation criteria calculations, the following MRE calculation was used:
 - the [influent – effluent] WWTP MRE was used for Arsenic, BOD₅, Copper, Lead, Mercury, Ammonia-Nitrogen, Oil and Grease, PFOA, PFOS, Surfactants, TPH, and TSS,
 - the site-specific influent- biosolids WWTP MRE was used for Cadmium, Chromium, Molybdenum, Nickel, Selenium, Silver, and Zinc, and
 - the *EPA Local Limits Guidance Document, Appendix R* values used for Cyanide
- For the WWTP NPDES permit effluent (ocean outfall water quality), the AHL evaluation criterion used was the influent - effluent ZOM MRE. The only exception to this applies to BOD₅ and TSS, where the [influent – effluent] WWTP MRE was used.

The WWTP's NPDES permit specifies effluent limitations for BOD₅ and TSS at the WWTP's effluent sampling monitoring point and for pollutants specified HAR Chapter 11-54 water quality standards at the edge of the ZOM. The [influent – effluent] WWTP MRE was used to evaluate WWTP NPDES effluent criteria for BOD₅ and TSS.

For the other applicable pollutants specified in HAR Chapter 11-54 water quality standards, however, the NPDES permit also includes a provision for the use of a permit-specified dilution factor to assess WWTP effluent compliance at the edge of the ZOM. Therefore, the influent - effluent ZOM MRE is used to evaluate all POCs against the WWTP NPDES effluent criteria specified in HAR Chapter 11-54 water quality standards. Specifically, ZOM MRE is calculated using the [influent – effluent] WWTP MRE data results and applying the ZOM dilution factor to calculate what the pollutant concentration will be at the edge of the ZOM. This allows the WWTP to use the effluent sample point data to evaluate NPDES permit effluent criteria that apply at the edge of the ZOM.

Table 6-9: Percent Removal Efficiency Selection

Pollutant	Influent to Effluent Treatment Plant MRE	Influent to Effluent ZOM MRE	Influent to Effluent ADRE	EPA Local Limits Development Guidance Primary Median MRE	Influent - Biosolids MRE	Effluent - Biosolids MRE	Selected Primary Removal MRE	Selected Primary Removal Basis	Selected Ocean Outfall MRE	Selected Ocean Outfall MRE Removal Basis
Arsenic	18.7%	99.0%	17.3%	NR	13.4%	13.2%	18.7%	INF-EFF MRE	99.0%	ZOM MRE
BOD ₅ *	36.87%	99.0%	36.93%	NR	NR	NR	36.87%	INF-EFF MRE	36.87%	INF-EFF MRE
Cadmium	0.0%	99.0%	0.0%	15%	20.0%	NR	20.0%	INF-Biosolids MRE	99.0%	ZOM MRE
Chromium	42.9%	99.0%	36.6%	27%	56.2%	47.7%	56.2%	INF-Biosolids MRE	99.0%	ZOM MRE
Copper	52.9%	94.4%	53.3%	22%	53.7%	50.9%	52.9%	INF-EFF MRE	94.4%	ZOM MRE
Cyanide, Total	0.0%	99.0%	0.0%	27%	0.4%	NR	27.0%	EPA Guidance MRE	99.0%	ZOM MRE
Lead	63.2%	98.5%	43.3%	57%	64.2%	NR	63.2%	INF-EFF MRE	98.5%	ZOM MRE
Mercury	79.2%	99.0%	60.6%	10%	53.5%	NR	79.2%	INF-EFF MRE	99.0%	ZOM MRE
Molybdenum	5.6%	99.0%	4.3%	NR	14.1%	12.0%	14.1%	INF-Biosolids MRE	99.0%	ZOM MRE
Nickel	24.1%	97.6%	11.9%	14%	27.2%	25.0%	27.2%	INF-Biosolids MRE	97.6%	ZOM MRE
Nitrogen, Ammonia	-1.8%	99.0%	-2.7%	NR	NR	NR	-1.8%	INF-EFF MRE	99.0%	ZOM MRE
Oil and Grease	0.0%	99.0%	0.0%	NR	NR	NR	0.0%	INF-EFF MRE	99.0%	ZOM MRE
PFOA	22.1%	98.2%	19.2%	NR	0.6%	0.7%	22.1%	INF-EFF MRE	98.2%	ZOM MRE
PFOS	42.3%	97.7%	45.9%	NR	6.1%	8.9%	42.3%	INF-EFF MRE	97.7%	ZOM MRE
Selenium	0.0%	72.3%	0.0%	NR	20.1%	NR	20.1%	INF-Biosolids MRE	72.3%	ZOM MRE
Silver	0.0%	99.0%	0.0%	20%	38.1%	NR	38.1%	INF-Biosolids MRE	99.0%	ZOM MRE
Surfactants	9.4%	99.0%	10.1%	NR	NR	NR	9.4%	INF-EFF MRE	99.0%	ZOM MRE
TPH	0.0%	99.0%	0.0%	NR	NR	NR	0.0%	INF-EFF MRE	99.0%	ZOM MRE
TSS*	75.98%	99.0%	75.66%	NR	NR	NR	75.98%	INF-EFF MRE	75.98%	INF-EFF MRE
Zinc	58.5%	99.0%	59.6%	27%	54.3%	54.6%	54.3%	INF-Biosolids MRE	99.0%	ZOM MRE

Key: NR = No data available. The EPA Local Limits Guidance Manual does not include removal efficiency values for these pollutants.

* The influent to effluent WWTP MRE for conventional pollutants BOD₅ and TSS was calculated using both 2021 local limits sampling data and daily plant influent and effluent flows and sampling data.

7.0 LOCAL LIMITS AHL CALCULATIONS

The methodology used in the Study for calculating the local limits follows the EPA Guidance Local Limits Development Guidance MAHL approach. In the EPA approach, AHLs are calculated for each criterion, and then the lowest AHL is selected as the MAHL. Once the MAHL is determined, the WWTP loadings from uncontrolled sources and hauled waste sources are subtracted to calculate the maximum allowable industrial loading (MAIL). A safety factor and a growth allowance (GA) are then applied. The GA is only applicable to WWTP design criteria POCs, namely; BOD₅ and TSS. The MAIL is the portion of the MAHL that is allocated to SIUs.

The uncontrolled sources include domestic, commercial, and uncontrolled sources that are not readily controllable (such as domestic hauled waste). The MAHL method takes these sources into account in calculating the MAIL.

Table 7-1, *Local Limits Calculations Information Summary*, provides a summary of the data used in calculating the local limits for this study. The table includes the percent removal efficiency selected for the evaluation, the average concentration for the uncontrolled sample point, the calculated loading using the calculated uncontrolled source flow, the average concentration for the WWTP influent, and the calculated loading at the WWTP influent. Table 7-1, *Local Limits Pollutant Loadings Summary*, also includes a summary of flow data used in the local limits calculations.

The SIU flows used in this local limits evaluation are the actual SIU flows measured and reported by the facilities, as referenced in the 2020 PAAR plus the flows of a newly permitted SIU (Waikiki Aquarium) and another SIU (Airport Carwash) in the process of being permitted., corresponding to a total average daily SIU flow of 0.62237 MGD). The uncontrolled source flows (used in the uncontrolled source pollutant loading calculations) are calculated as follows:

Average UNC Source Flow = (MGD)	[2020 Average WWTP Influent Flow (MGD) – 2020 Average SIU Flow* (MGD)]
* Includes the current average daily flow of the newly permitted SIU (Waikiki Aquarium) added in April 5, 2021	

An evaluation of the data presented in Table 7-1, *Local Limits Pollutant Loadings Summary* identified higher average concentrations and average daily Loadings for Chromium, Cyanide, Oil and Grease and Selenium in the uncontrolled source sample point when compared to that observed in samples collected from the WWTP influent. This is attributed to the inherent variability of these pollutants in the uncontrolled source, as well as the use of only one sample point to represent the uncontrolled source for the entire WWTP wastewater service area.

Table 7-1: Local Limits Pollutant Loadings Summary

Pollutant	Selected MRE %	Influent Average Concentration (mg/L)	Influent Average Loading (Lbs./Day)	Average Uncontrolled Source Concentration (mg/L)	Average Uncontrolled Source Loading (Lbs./Day)	Sludge Pollutant Average (Lbs./Day)	Hauled Pollutant Average Concentration (mg/L)	Average Hauled Waste Loading (Lbs./Day)
Arsenic	18.7%	0.0015	0.6379	0.0012	0.5571	0.0852	0.0198	0.00009
BOD ₅ *	36.9%	141.4	63,119	110.2	51,472	NR	307.0	1.33
Cadmium	20.0%	0.0003	0.1395	0.0003	0.1486	0.0279	0.03160	0.00014
Chromium	56.2%	0.00418	1.85	0.00462	2.16	1.04	0.2243	0.0010
Copper	52.9%	0.0281	12.2	0.0194	9.07	6.54	2.59	0.0112
Cyanide, Total	27.0%	0.00954	4.19	0.0130	6.0717	0.0159	0.0460	0.0002
Lead	63.2%	0.0017	0.7665	0.0008	0.3870	0.4924	0.3621	0.0016
Mercury	79.2%	0.00013	0.0578	0.0000393	0.0183	0.0309	0.000260	0.0000011
Molybdenum	14.1%	0.00349	1.52	0.0017	0.8150	0.2141	0.0730	0.0003
Nickel	27.2%	0.00417	1.85	0.00360	1.6832	0.5028	0.3170	0.0014
Nitrogen, Ammonia	-1.8%	18.67	8,160	16.9	7,879	NR	3.99	0.0173
Oil and Grease	0.0%	7.95	3,483	21.3	9,930	NR	226.0	0.9772
PFOA	22.1%	0.0000056	0.002408	0.000004	0.001904	0.000015	0.000020	0.00000009
PFOS	42.3%	0.0000198	0.008661	0.000004	0.0017	0.000526	0.000011	0.00000005
Selenium	20.1%	0.0006	0.2763	0.0009	0.4192	0.0556	0.0061	0.00003
Silver	38.1%	0.00048	0.2092	0.00048	0.2229	0.0797	0.0185	0.00008
Surfactants	9.4%	5.77	2,521	4.94	2,308	NR	203.0	0.8778
TPH	0.0%	7.95	3,487	7.95	3,714	NR	105.0	0.4540
TSS*	76.0%	143.8	64,400	95.77	44,744	NR	856.0	3.7013
Zinc	54.3%	0.0834	36.58	0.0791	37.0	19.87	11.56	0.0500

Key: NR = Not recorded; No data is available for reporting or calculation, due to pollutant not sampled.

* BOD₅ and TSS Effluent loading based on the uses of both local limits sampling data plus WWTP data and flows over the period January - June 2021.

The flows and data sources used in Table 7-1 calculations above are presented in Table 5-1. The loading calculation used in Table 7-1 above is presented as follows:

Pounds Calculation:

$$\text{Loading (Pounds)} = \text{Concentration (mg/L)} \times \text{Flow (MGD)} \times 8.34$$

7.1 Allowable Headworks Loading (AHL) Calculations

The AHL is the upper limit of pollutant loading at which a POTW will not violate any treatment plant or environmental criteria developed to prevent process inhibition or interference, or violation of effluent, biosolids, or air quality standards. AHLs are calculated on a pollutant-by-pollutant basis for each plant process and environmental objective relevant to the plant. Calculations are carried out to establish maximum loads based on pollutant interference with plant processes, pass-through, beneficial recycling, and residuals protection.

The *EPA Local Limits Development Guidance Document Section 4.3.1 and associated Table 4-1*, specifies that the evaluation of local limits should be performed using sampling data collected over a seven-to-fourteen-day period, and that site-specific flows should be used. However, for Sand Island WWTP, DOH recommended the use of data representative of seasonal variation in its calculations. Therefore, local limits development sampling was performed twice, once during the wet weather season (in February 2021) and once during the dry weather season (in June 2021). To provide data representative of seasonal variation, local limits sampling was conducted in February 2021 (during the wet weather season) and in June 2021 (during the dry weather period) for all POCs. For BOD₅ and TSS, both the February and June 2021 local limits sampling data and actual daily plant flows and influent and effluent plant sampling data (performed over the period of January through June 2021) were included in the local limits development AHL calculations to provide a higher number of data sets to represent seasonal variation.

Sludge was sampled once during the wet weather season (in February 2021), and additional WWTP sludge data was used (from the period of January 2015 through June 2021) to provide additional data sets that contribute seasonal data variation to the AHL calculation associated with this local limits development effort.

The daily plant flow, recorded on the date each sample was collected for the local limits, was used, along with the sampling data, to calculate the pollutant loading for each of the pollutants with the exception of the conventional pollutants BOD₅ and TSS. For BOD₅ and TSS, in addition to the 2021 local limits sampling data, influent and effluent plant sampling data was used along with the actual daily plant flows (over the period of January 2021 through June 2021) to calculate the AHLs.

7.1.1 Inhibition-Based AHLs

Pollutant levels in the WWTP influent may cause operational problems or inhibition for wastewater and sludge treatment processes. No inhibition concerns were noted in the evaluation of the previous five years of data and reports. Nonetheless, the study included an evaluation of inhibition criteria. Site-specific inhibition data are preferred in calculating inhibition based AHLs. Since no known inhibition was observed, the calculations of primary treatment inhibition in this study are based on the literature values provided in the *EPA Local Limits Development Guidance Document, Appendix G*.

The applicable process inhibition criteria for the WWTP treatment process are the currently applicable anaerobic digestion inhibition criterion and the trickling filter inhibition criterion which will be applicable until 2026, when the MBR project is implemented. The process inhibition criteria for these two processes are specified in the *EPA Local Limits Development Guidance Document, Appendix G*. Table 7-2, *Inhibition Based AHLs*, lists the calculated inhibition-based AHLs. Table 7-2 also includes a calculation of the current influent percent loading as a percentage of the calculated AHL. The following formulas were used to calculate the inhibition-based AHLs.

$AHL = \frac{(8.34 * C * Q)}{(1 - R_{primary})}$	
C= Inhibition Criterion, mg/L	
Q= Influent Flow Rate, MGD	
R _{primary} = % Removal in Primary Treatment from EPA Local Limits Development Guidance Appendix R	
Influent Loading = 8.34 X Influent Concentration X Influent Flow)	

$$\text{Average Influent Loading \% MAHL} = (\text{Average Load} / \text{AHL}) \times 100$$

Table 7-2: Inhibition-Based AHLs

Pollutant	Selected Primary Pollutant Removal Efficiency (%)	Influent Average Concentration (mg/L)	EPA Guidance Trickling Filter Inhibition Criteria (ug/L)	Trickling Filter Inhibition Criteria AHL (Lbs./Day)	EPA Guidance Anaerobic Digestion Process Inhibition Criteria (1) (mg/L)	Anaerobic Digestion Process Inhibition Criteria AHL (Lbs./Day)	Design Criteria Based on Influent Design Flow (Lbs./day)	Most Stringent Influent AHL Criteria (Lbs./Day)	Influent Average Loading (Lbs./Day)	Average Influent Loading % AHL
Arsenic	18.7%	0.001450	--	NA	1,600	798	NR	798	0.6380	0.08%
BOD ₅ *	36.9%	141.4	--	NA	--	NA	131,355	131,355	63,119	48.1%
Cadmium	20.0%	0.000318	--	NA	20,000	9,975	NR	9,975	0.1395	0.001%
Chromium	56.2%	0.00418	--	NA	--	NA	NR	NA	1.85	NA
Copper	52.9%	0.0281	--	NA	40,000	19,949	NR	19,949	12.2	0.06%
Cyanide, Total	27.0%	0.00954	30,000	20,496	4,000	1,995	NR	1,995	4.19	0.21%
Lead	63.2%	0.00173	--	NA	340,000	169,569	NR	169,569	0.7665	0.0005%
Mercury	79.2%	0.000130	--	NA	--	NA	NR	NA	0.0578	NA
Molybdenum	14.1%	0.0035	--	NA	--	NA	NR	NA	1.52	NA
Nickel	27.2%	0.00417	--	NA	10,000	4,987	NR	4,987	1.85	0.037%
Nitrogen, Ammonia	-1.8%	18.7	--	NA	1,500,000	748,098	NR	748,098	8,160	1.1%
Oil and Grease	0.0%	8.0	--	NA	--	NA	NR	NA	3,483	NA
PFOA	22.1%	0.0000056	--	NA	--	NA	NR	NA	0.0024	NA
PFOS	42.3%	0.0000198	--	NA	--	NA	NR	NA	0.0087	NA
Selenium	20.1%	0.00064	--	NA	--	NA	NR	NA	0.2763	NA
Silver	38.1%	0.000477	--	NA	13,000	6,484	NR	6,484	0.2092	0.003%
Surfactants	9.4%	5.77	--	NA	--	NA	NR	NA	2,521	NA
TPH	0.0%	7.95	75,000	37,405	--	NA	NR	37,405	3,487	9.3%
TSS*	76.0%	143.8	--	NA	--	NA	138,861	138,861	64,400	46.4%
Zinc	54.3%	0.083	--	NA	400,000	199,493	NR	199,493	36.6	0.02%

For the Sand Island WWTP, both the anaerobic digestion process and the trickling filter process inhibition criteria apply.

(1) The process inhibition threshold concentrations, per the *EPA Local Limits Guidance Manual*

* BOD₅ and TSS effluent Loading based on the uses of both local limits sampling data plus WWTP data and flows over the period January - June 2021.

NA = Not applicable

Notes: The most stringent AHL is **Bolded**. "--" Indicates No Value in EPA Guidance.

7.1.2 Effluent Quality-Based AHLs

Effluent quality-based AHLs protect the facility and prevent the pass-through of pollutants that may cause violations of applicable effluent and reuse standards. The effluent-based standards evaluated included the permitted water quality-based effluent limitations, the permitted RPA continuous concentration limits, the permitted reasonable potential analysis human health concentrations (per WWTP NPDES Permit, and HAR Chapter 11-54). Table 7.3, *Effluent Quality-Based AHLs*, lists the calculated AHLs for the

evaluated pollutants. This table also presents the current influent percent loading for each POC as a percentage of the most stringent calculated AHL.

The following formulas were used to calculate the effluent-based AHLs.

Effluent AHL =	$\frac{8.34 * C * Q}{(1-R)}$
C =	Effluent Standard, mg/L
Q =	Effluent Flow Rate, MGD
R =	Plant Removal Efficiency as a Decimal

Influent Loading = 8.34 X Influent Concentration X Influent Flow)
Average Influent Loading % MAHL = (Average Load / AHL) X 100

Table 7-3: Effluent Quality-Based AHLs

Pollutant	ZOM Mean Removal Efficiency %	Most Stringent WQBEL Referenced in Permit (ug/L)	Most Stringent WQBEL AHL (Lbs./Day)	Most Stringent Effluent AHL (Lbs./Day)	Average Influent Loading (Lbs./Day)	Average Influent Loading % AHL
Arsenic	99.0%	36.0	1,795	1,795	0.6379	0.036%
BOD ₅ *	36.87%	119,000	94,013	94,013	63,119	67.1%
Cadmium	99.0%	9.30	463.8	463.8	0.1395	0.0%
Chromium	99.0%	NR	NR	NR	1.85	NA
Copper	94.4%	2.90	25.8	25.8	12.2	47.3%
Cyanide, Total	99.0%	1.00	49.9	49.9	4.19	8.4%
Lead	98.5%	5.60	184.8	184.8	0.7665	0.4%
Mercury	99.0%	0.0250	1.247	1.247	0.0578	4.6%
Molybdenum	99.0%	NR	NR	NR	1.52	NA
Nickel	97.6%	8.30	173	173	1.85	1.1%
Nitrogen, Ammonia	99.0%	NR	NR	NR	8,160	NA
Oil and Grease	99.0%	NR	NR	NR	3,483	NA
PFOA	98.2%	0.0700	1.981	1.981	0.0024	0.1%
PFOS	97.7%	0.0700	1.544	1.544	0.0087	0.6%
Selenium	99.0%	71.0	3,541	3,541	0.2763	0.008%
Silver	99.0%	2.30	114.7	114.7	0.2092	0.18%
Surfactants	99.0%	NR	NR	NR	2,521	NA
TPH	99.0%	NR	NR	NR	3,487	NA
TSS*	76.0%	48,000	99,655	99,655	64,400	64.6%
Zinc	99.0%	86.0	4,289	4,289	36.6	0.9%

Key: NR = Not recorded; No limit value specified in the NPDES permit or EPA Local Limits Development Guidance Manual document.

N/A = Not applicable; a value could not be calculated.

WQBEL = Water Quality Based Effluent Limits, per WWTP NPDES Permit No. HI 0020177, and HAR Chapter 11-54.

Most stringent AHL is **Bolded**.

* For conventional pollutants BOD₅ and TSS, the stated WQBELs are the interim NPDES Permit limits referenced in the NPDES permit Fact Sheet⁽¹³⁾ Section B.7., which are in place pursuant to the conditions and timelines specified in the December 17, 2010 CD.

The MRE and average influent loading for BOD₅ and TSS is calculated from both local limits sampling data and 2021 daily WWTP data providing more data sets).

Note, HAR Section 11-54-9 allows the use of a ZOM to demonstrate compliance with WQS.

7.1.3 Biosolids Based Criteria AHLs

All biosolids generated at the WWTP are currently managed at the WWTP and Synagro In-Vessel Bioconversion Facility, where biosolids receive treatment to meet exceptional quality biosolids criteria limitations specified in HAR 11-62⁽¹⁴⁾ Table IV pursuant to the Wastewater Management Permit HI19WWIP323⁽¹⁵⁾, Part B, 11. a., issued by the HDOH on May 1, 2019. Under this permit, the facility is authorized to reprocess biosolids that do not meet exceptional quality biosolids criteria or to dispose of the biosolids at a municipal landfill. Biosolids are disposed of at a municipal landfill when the treated biosolids product does not meet exceptional biosolids criteria and is not reprocessed by the facility, and when biosolids are removed from facility equipment as a result of routine maintenance and cleaning activities.

Since the biosolids may be hauled to the municipal landfill for disposal, the biosolids must meet toxicity characteristic leaching procedure (TCLP) criteria to verify that the material is non-hazardous while still compliant with EPA 503 requirements and Appendix II of 40 CFR Part 261⁽¹⁶⁾.

The review of the 2020 biosolids TCLP sampling data found that all TCLP pollutants were below the stated MDL and met the TCLP criteria (confirming biosolids are non-hazardous and suitable for landfill application). Pursuant to the EPA Local Limits Guidance Manual, Section 5.2.3, if biosolids are not hazardous, AHL calculations are not required to be performed for local limits evaluation, and Biosolids TCLP AHL evaluation criteria does not apply. The Biosolids AHL for the local limits evaluation are presented in Table 7-4, *Biosolids-Based AHLs*, below.

The following formulas were used to calculate the Biosolids-based AHLs.

Biosolids AHL = $\frac{C * (\text{Biosolids Average Daily Production}/453,592 \text{ mg/lb.})}{R}$	
C = Biosolids Standard, mg/Kg dry Biosolids	
R = Plant Removal Efficiency as a decimal	
453,592.37 = Conversion from Pounds to mg	
Production = Daily Production in Kg	
Biosolids Average Daily Production =	5,999 Kg/Day
Average Loading % AHL =	(Average Loading / AHL) * 100

Table 7-4: Biosolids-Based AHLs

Pollutant	Calculated Mean Removal Efficiency	Biosolids Average Pollutant Concentration (mg/Kg)	HAR 11-62 Table IV Limits (mg/kg)	Most Stringent Biosolids AHL (Lbs./Day)*	Influent Average Loading (Lbs./Day)	Average Influent % Loading of MAHL
Arsenic	18.7%	5.68	20	1.606	0.638	39.7%
BOD ₅ **	36.9%	NR	--	NR	63,119	NA
Cadmium	20.0%	1.86	15	1.127	0.1395	12.4%
Chromium	56.2%	69.16	200	5.345	1.85	34.6%
Copper	52.9%	436	1,500	42.57	12.2	28.6%
Cyanide, Total	27.0%	1.06	--	NR	4.19	NA
Lead	63.2%	32.80	300	7.125	0.7665	10.8%
Mercury	79.2%	2.06	10	0.190	0.0578	30.5%
Molybdenum	14.1%	14.26	25	2.658	1.52	57.0%
Nickel	27.2%	33.48	420	23.16	1.85	8.0%
Nitrogen, Ammonia	-1.8%	NR	--	NR	8,160	NA
Oil and Grease	0.0%	NR	--	NR	3,483	NA
PFOA	22.1%	0.00	--	NR	0.00241	NA
PFOS	42.3%	0.04	--	NR	0.00866	NA
Selenium	20.1%	3.70	25	1.865	0.276	14.8%
Silver	38.1%	5.31	--	NR	0.2092	NA
Surfactants	9.4%	NR	--	NR	2,521	NA
TPH	0.0%	NR	--	NR	3,487	NA
TSS**	76.0%	NR	--	NR	64,400	NA
Zinc	54.3%	1,323	2,000	55.28	36.58	66.2%

Note: The most stringent AHL is Bolded.

NR – Indicates no value reported.

NA – Indicates not applicable for this parameter.

* The most stringent AHL for Biosolids is the loading calculated based on the application of HAR 11-62 Table IV limitations.

** For conventional pollutants BOD₅ and TSS, used the MRE and Average influent loading calculated from 2021 daily plant data (providing more data sets).

Note, the Sand Island 2020 sludge sample TCLP data results were reported to be < MDL for all pollutants. Therefore, per the EPA Local Limits Guidance Manual Section 5.2.3, the Sludge AHL calculation is not required to be developed or assessed for Sludge TCLP evaluation criteria. The only applicable sludge evaluation criteria are the stated biosolids quality limitations specified in HAR 11-62 Table IV pursuant to the WWTP and Synagro In-Vessel bioconversion facility Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

7.2 AHLs for Conventional Parameters

The evaluation of AHLs for conventional pollutants BOD₅ and TSS are calculated based on the design capacity of the WWTP and all applicable discharge criteria. The most stringent effluent AHL criterion is the WWTP NPDES permit effluent criteria. The second most stringent AHL criterion is the WWTP Design criteria.

Comparing BOD₅ and TSS effluent monitoring results to the NPDES permit limits, as established under CD Civil No. 94-00765 DAE-KSC effective 12/17/2010, is one of the key steps in local limits evaluation.

There were no identified exceedances of WWTP effluent BOD₅ concentration or loading interim NPDES permit limits during the 2016-2020 evaluation period, with the exception of one average weekly exceedance in March 2019. There were exceedances of the TSS average monthly and weekly concentration and loading limits in 2016 and in 2017, with no exceedances occurring as of August 2017. The above-referenced WWTP BOD₅ and TSS historical effluent data supports the evaluation of local limits (presented in Section 8.3 below).

The EPA Local Limits Guidance Manual recommendation states that local limits should be evaluated and calculated if the influent load is greater than 80% of the WWTP design loading capacity for conventional pollutants during any one month in the 12-month period preceding the analysis. Although the BOD₅ and TSS influent loadings evaluated in this local limits report indicate the current loadings are below 80% of the WWTP design loading capacity, this review was performed. Specifically, the results of the WWTP monthly average influent BOD₅ and TSS loading values for the 12-month period of January - December 2020 were compared to the WWTP design criteria AHL for BOD₅ and TSS, which indicate the following:

- the average monthly influent BOD₅ loading value for the 12-month period of January - December 2020 was 48.1%, and below the 80% of WWTP design capacity for BOD₅; and
- the average monthly influent TSS loading value for the 12-month period of January - December 2020 was 48.4%, and below the 80% of WWTP design capacity for TSS.

A review of the WWTP Design criteria calculations presented Table 7-5, *WWTP Design Criteria-based Local Limits Evaluation* indicates that both BOD₅ and TSS average monthly influent loadings (over the period of January – June 2021) did not exceed 80% of the WWTP design pollutant treatment capacity, as follows:

- Average monthly BOD₅ loading is 48.1% of WWTP design BOD₅ treatment capacity, and
- Average monthly TSS loading is 46.4% of WWTP design TSS treatment capacity.

Table 7-5, *WWTP Design Criteria-based Local Limits Evaluation*, evaluates WWTP's loadings with respect to its design criteria. Table 7-6, *WWTP BOD₅ Loadings and Effluent Criteria Local Limits Evaluation*, and Table 7-7, *WWTP TSS Loadings and Effluent Criteria Local Limits Evaluation*, evaluate the facility's loadings with respect to NPDES permit effluent limitations, as well as define the facility's pollutant removal efficiencies (where both the MRE and ADRE are calculated). Both, the WWTP design criteria evaluation and the WWTP NPDES permit effluent criteria evaluation presented here for conventional pollutants BOD₅ and TSS, include the MAIL and local limits calculations for comparison purposes. The WWTP NPDES permit effluent criteria was then selected because it was determined to be the most stringent limitation.

Table 7-5: WWTP Design Criteria-based Local Limits Evaluation

WWTP Design average daily flow (MGD):	90.0
WWTP Design average BOD ₅ concentration (mg/L):	175
WWTP Design average TSS concentration (mg/L):	185
WWTP Present (2021) average daily influent flow (MGD):	54.4
WWTP Present (2021) average BOD ₅ influent concentration (mg/L):	141.4
WWTP Present (2021) average TSS influent concentration (mg/L):	286.4
WWTP (2020 PAAR) average daily flow (MGD):	59.8
Number of years between past and present flow (years):	1
Number of years between present and future flow (years):	5
WWTP Design BOD ₅ MAHL (Lbs./Day):	131,355
WWTP Design TSS MAHL (Lbs./Day):	138,861
Present (Jan – June 2021) WWTP average daily flow (MGD):	54.4
WWTP Current BOD ₅ loading (Lbs./Day):	63,119
WWTP Current TSS loading (Lbs./Day):	64,400
Used plant capacity (BOD ₅):	48.1%
Used plant capacity (TSS):	46.4%
Present Total SIU average daily flow (MGD):	0.622370
WWTP Current Design Loading Safety Factor (as a decimal):	0.1
WWTP BOD ₅ Design Safety Factor Loading (Lbs./Day):	13,135.5
WWTP TSS Design Safety Factor Loading (Lbs./Day):	13,886.1
Service Area Growth Allowance Projection ⁽¹⁾ :	3.80%
WWTP BOD ₅ Growth Allowance Projection Loading (Lbs./Day):	4,991.5
WWTP TSS Growth Allowance Projection Loading (Lbs./Day):	5,276.7
Present Uncontrolled Source BOD ₅ Loading (Lbs./Day):	51,472
Present Hauled Waste BOD ₅ Loading (Lbs./Day):	1.33
Present Uncontrolled Source TSS Loading (Lbs./Day):	44,744
Present Hauled Waste TSS Loading (Lbs./Day):	3.70
BOD ₅ MAIL (Lbs./Day):	61,575
TSS MAIL (Lbs./Day):	74,951
BOD ₅ local limit (mg/L):	11,898
TSS local limit (mg/L):	14,440

Note: Present = 2021 data source values.

Note: Present WWTP influent and effluent BOD₅ and TSS concentration and loading values were calculated using January - June 2021 plant data and 2021 local Limits sampling activities combined.

Note: Present uncontrolled source and hauled waste BOD₅ and TSS concentrations and loading values per 2021 local Limits sampling data.

(1) The stated service area growth allowance projection of 3.80% is calculated using the data source *Wastewater Flow and Load Projections Report*, prepared by Carollo Engineers, June 2021, specifically for the WWTP and Sewer Basin., as discussed in Section 8.1 and presented in Table 8.1 of this report.

Table 7-6: WWTP BOD₅ Loadings and Effluent Criteria Local Limits Evaluation

Month	Influent Average Monthly BOD ₅ Concentration (mg/L)	Effluent Average Monthly BOD ₅ Concentration (mg/L)	Influent Average Monthly BOD ₅ Loading (Lbs./Day)	Effluent Average Monthly BOD ₅ Loading (Lbs./Day)	Overall BOD ₅ Removal (%)	Influent Average 2021 Flow (MGD)	Effluent Average 2021 Flow (MGD)
January 2021	122.2	75.2	56,564	37,239	38.50	56.7	60.5
February 2021	136.7	87.1	62,600	42,101	36.30	55.1	58.3
March 2021	117.1	73.8	59,931	39,404	36.99	62.2	65.6
April 2021	146.7	92.4	62,215	42,558	36.98	50.9	55.2
May 2021	162.0	100.5	67,640	45,965	38.01	50.1	54.8
June 2021	163.5	106.6	69,766	50,524	34.82	51.1	56.8
AVERAGE:	141.4	89.2	63,119	42,965	36.93	54.4	58.5
ADRE:					36.93		
MRE:					36.87		
Evaluation of BOD Loading to Permit Effluent Criteria							
Permit Interim Effluent BOD Limit (mg/L):					119		
Permit Interim Effluent BOD Loading Limit (Lbs./day):					89,414		
2021 Ave Effluent BOD Conc. (mg/L):					89.2		
2021 Ave Effluent BOD Loading (Lbs./Day):					42,965		
Max. Allowable Influent BOD Loading (Lbs./Day):					94,013		
2021 Ave Influent BOD Loading (Lbs./Day):					63,119		
Ave BOD Influent Loading % of BOD AHL:					67.14%		
MAIL Calculation (Effluent Criteria)							
BOD MAHL (Lbs./Day):					94,013		
10% Safety Factor (Lbs./Day):					9,401		
3.80% Growth Allowance Projection Factor (Lbs./Day):					3,572		
Uncontrollable Influent BOD Loading (Lbs./Day):					51,472		
Hauled Waste BOD Loading (Lbs./Day):					1.33		
BOD MAIL (Lbs./Day):					29,566		
BOD Uniform Concentration Limit (mg/L)					5,696		

Note, for conventional pollutants BOD₅ and TSS, the evaluation of BOD₅ loading to NPDES permit effluent criteria, and the calculation of MRE, ADRE, average influent and effluent concentration and loadings were sourced from both local limits sampling data and daily plant BOD₅ and TSS data and flows from January - June 2021 (providing more data sets).

Table 7-7: WWTP TSS Loadings and Effluent Criteria Local Limits Evaluation

Month	Influent Average Monthly TSS Concentration (mg/L)	Effluent Average Monthly TSS Concentration (mg/L)	Influent Average Monthly TSS Loading (Lbs./Day)	Effluent Average Monthly TSS Loading (Lbs./Day)	Overall TSS Removal (%)	Influent Average 2021 Flow (MGD)	Effluent Average 2021 Flow (MGD)
January 2021	120.4	34.2	56,477.8	17,624.1	71.62	56.7	60.5
February 2021	143.4	41.6	65,637.6	20,199.7	70.97	55.1	58.3
March 2021	121.2	30.8	62,435.6	16,955.2	74.61	62.2	65.6
April 2021	162.0	33.4	68,564.0	15,389.2	79.38	50.9	55.2
May 2021	157.5	31.7	65,694.9	14,511.1	79.88	50.1	54.8
June 2021	158.0	35.5	67,588.8	16,860.4	77.51	51.3	56.9
AVERAGE:	143.8	34.5	64,399.8	16,923.3	75.66	54.4	58.5
ADRE:						75.66	
MRE:						75.98	
Evaluation of TSS Loading to NPDES Permit Effluent Criteria							
Permit Interim Effluent TSS Concentration Limit (mg/L):					48		
Permit Interim Effluent TSS Loading Limit (Lbs./day):					36,349		
2021 Average Effluent TSS Concentration (mg/L):					34.5		
2021 Average Effluent TSS Loading (Lbs./Day):					16,923.3		
Maximum Allowable Influent TSS Loading (Lbs./Day):					99,655		
2021 Average Influent TSS Loading (Lbs./Day):					64,399.8		
Average TSS Influent Loading % of TSS AHL:					64.62%		
TSS MAIL Calculation (NPDES Permit Effluent Criteria)							
TSS MAHL (Lbs./Day):					99,655		
10% Safety Factor (Lbs./Day):					9,966		
3.80% Growth Allowance Projection Factor (Lbs./Day):					3,787		
Uncontrolled Source TSS Loading (Lbs./Day):					44,744		
Hauled Waste Loading (Lbs./Day):					3.70		
TSS MAIL (Lbs./Day):					41,155		
TSS Uniform Concentration Limit (mg/L)					7,929		

Note, for conventional pollutants BOD₅ and TSS, the evaluation of TSS loading to NPDES permit effluent criteria, and the calculation of MRE, ADRE, average influent and effluent concentration and loadings were sourced from both local limits sampling data and daily plant data from January - June 2021 (providing more data sets).

7.3 Maximum Allowable Headworks Loading (MAHL)

The most stringent of the calculated AHLs is identified for each pollutant, and that AHL is designated as the Maximum Allowable Headworks Loading (MAHL). Influent loadings below the MAHL will support the WWTP's compliance with all applicable environmental and treatment plant criteria. The MAHL is used to calculate the Maximum Industrial Loading (MAIL) in subsequent calculations. Table 7-8, *MAHL Determination*, lists the MAHLs for each of the evaluated pollutants. The table includes a list of the most

stringent AHLs from the inhibition, water quality, and biosolids AHL evaluations, the identification of the most stringent overall AHL as the MAHL, and the current influent % loading of the MAHL.

Table 7-8: MAHL Determination

Pollutant	Limiting Influent AHL (Lbs./Day)	Limiting Sludge AHL (Lbs./Day)	Limiting Effluent AHL (Lbs./Day)	Most Stringent AHL (MAHL) (Lbs./Day)	Average Influent Load (Lbs./day)	Average % Loading of MAHL	Maximum Influent Load (Lbs./Day)	Maximum % Loading of MAHL	Criterion of Which the MAHL was Based
Arsenic	797.97	1.61	1,795	1.61	0.63787	39.7%	0.962	59.9%	Biosolids
BOD ₅	131,355	NR	94,013	94,013	63,119	67.1%	69,766	74.2%	Effluent
Cadmium	9,975	1.13	463.8	1.13	0.13949	12.4%	0.1611	14.3%	Biosolids
Chromium	NA	5.34	NR	5.34	1.85	34.6%	3.34	62.5%	Biosolids
Copper	19,949	42.57	25.8	25.8	12.19	47.3%	15.6	60.4%	Effluent
Cyanide, Total	1,995	NR	49.9	49.9	4.19	8.4%	4.83	9.7%	Effluent
Lead	169,569	7.12	184.8	7.12	0.76654	10.8%	2.245	31.5%	Biosolids
Mercury	NA	0.19	1.25	0.19	0.05776	30.5%	0.210	110.9%	Biosolids
Molybdenum	NA	2.66	NR	2.66	1.52	57.0%	2.23	84.0%	Biosolids
Nickel	4,987	23.16	173.2	23.16	1.85	8.0%	3.95	17.1%	Biosolids
Nitrogen, Ammonia	748,098	NR	NR	748,098	8,160	1.1%	10,286	1.4%	Influent Inhibition
Oil and Grease	NA	NR	NR	No Basis	3,483	No Basis	4,026	No Basis	No Basis
PFOA	NA	NR	1.98	1.98	0.00241	0.1%	.002869	0.1%	Effluent
PFOS	NA	NR	1.54	1.54	0.00866	0.6%	0.01519	1.0%	Effluent
Selenium	NA	1.87	3,541	1.87	0.27630	14.8%	0.288	15.4%	Biosolids
Silver	6,484	NR	114.7	114.7	0.20924	0.2%	0.2416	0.2%	Effluent
Surfactants	NA	NR	NR	No Basis	2,521	No Basis	3,036	No Basis	No Basis
TPH	37,405	NR	NR	37,405	3,487	9.3%	4,026	10.8%	Influent Inhibition
TSS	138,861	NR	99,655	99,655	64,400	64.6%	68,564	68.8%	Effluent
Zinc	199,493	55.28	4,289	55.28	36.58	66.2%	54.4	98.4%	Biosolids

Key: NR = Not Recorded; No Limit Value specified in NPDES permit or EPA guidance document.

Note: **Bold lettering** (for AHL and MAIL values) reflects the value and basis for the most stringent AHL value and MAHL basis for each pollutant.

Note: **Bold lettering** (for Average % Loading of the AHL and for the Maximum % Loading of the AHL values) represent the stated pollutant Average Loading exceeds 60% of the MAHL or the Maximum Influent Loading exceeds 80% of the MAHL, per EPA Local Limits Guidance Manual, Section 6.1.1

* The average and maximum influent Loadings for BOD₅ and TSS were calculated using both local limits sampling data and daily WWTP BOD₅ and TSS sample data and flows over the period of January – June 2021 (through the week of the June 2021 local limits sampling event).

Note, the most stringent Sludge evaluation criteria for biosolids quality are the stated limitations in HAR 11-62 Table IV.

The pollutant average and maximum influent loading percent of the MAHL were calculated using the following formulas:

Average pollutant Loading % MAHL	=	$\frac{\text{Average Influent Loading}}{\text{MAHL}}$	X 100
Maximum pollutant Loading % MAHL	=	$\frac{\text{Maximum Influent Loading}}{\text{MAHL}}$	X 100

7.3.1 Review of Influent Loading as a Percent of MAHL

The EPA Local Limits Development Guidance Document includes recommendations for the need to calculate local limits when the influent loading exceeds the % MAHL based on the pollutant type. These recommendations are listed in Section 6.1.1 of the EPA Local Limits Development Guidance Document.

One of the criteria for including a pollutant for local limits development is if the average influent loading exceeds 60% of the MAHL for the pollutant. The pollutants for which the average influent loading exceeds 60% of the MAHL include BOD₅, TSS and Zinc. A full evaluation of our findings regarding these four pollutants, as well as all POCs evaluated in this local limits evaluation is presented in Section 8.3, Subsections 8.3.1 through 8.3.20.

8.0 MAIL AND UNIFORM LOCAL LIMITS CALCULATIONS

8.1 Maximum Allowable Industrial Loading (MAIL)

The MAIL is the mass loading (fraction of the MAHL) of a pollutant that can be allocated to SIUs. The MAIL is calculated by subtracting estimates of the following loading allocations from the MAHL:

- A safety factor (SF) loading allocation of the MAHL,
- Loadings from uncontrolled sources,
- Loadings from hauled waste not regulated through the local limits, and
- Expansion/Growth allowance (GA) related loading.

8.1.1 Safety Factor Loading Allocation

The EPA supports the use of a safety factor between 5% and 20%. Pursuant to the *EPA Local Limits Guidance Document, Section 6.2.3*, “at a minimum, EPA generally recommends a 10 percent safety factor.” A safety factor of 10% was assigned for all pollutants in the local limits evaluation. The 10% safety factor is the most common value used, providing both sufficient protection for the WWTP, as well as sufficient pollutant allocation for the SIUs. Once defined, the safety factor percentage is applied to the MAHL to calculate a safety factor loading allocation. This safety factor loading allocation is then subtracted from the MAHL (with other loading allocations presented in this section) to calculate the MAIL.

8.1.2 Uncontrolled Source Loading Allocation

Uncontrolled source discharges include residential and light commercial wastewater sources. Considering the wastewater discharged by these sources are not regulated by a local limit or SIU IWD permit provisions, pollutant loading must be set aside in the MAIL calculation to accommodate the POCs discharged by this wastewater source. The uncontrolled source loading allocation was calculated using uncontrolled source local limit sampling data and estimated uncontrolled source flows. Once defined, the

uncontrolled source loading allocation is then subtracted from the MAHL (with other loading allocations presented in this section) to calculate the MAIL.

8.1.3 *Hauled Waste Loading Allocation*

Hauled waste discharges from domestic sources are not regulated by a local limit or SIU IWD permit provisions. Therefore, pollutant loading must be set aside in the MAIL calculation to accommodate the POCs discharged by this wastewater source. Type 1 hauled waste sampling data was used, along with recorded daily Type 1 hauled waste flows reported in by the City in 2020, to calculate the hauled waste loading. Once defined, the Type 1 hauled waste loading allocation is then subtracted from the MAHL (with other loading allocations presented in this section) to calculate the MAIL.

8.1.4 *GA Loading Allocation*

The GA is separate from the safety factor and is most commonly justified for BOD₅, TSS, and other pollutants a POTW was designed to remove. According to EPA Local Limits Development Guidance Document Section 6.2.4, EPA recommends using a GA which can vary based on the projected growth for the area. Since no planned expansions or new developments were identified for the area, projected population growth was used instead.

The expansion-related growth allowance (GA) factor for the Sand Island wastewater service area for the period of 2021-2025 was calculated based on the population growth projections presented in the *Wastewater Flow and Load Projections Report*, prepared by Carollo Engineers, June 2021⁽¹⁷⁾, specifically for the WWTP and Sewer Basin.

The purpose of the 2021 Carollo report was to establish projected wastewater flows and loads based on anticipated future conditions. The information was then used to develop planning criteria on which subsequent analysis of overall collection system and treatment needs were based. Carollo utilized available data to establish historical and current population as well as develop projected population for the basin service area.

Data in the 2021 Carollo report included the most recent Traffic Analysis Zone (TAZ) population information, supplemented by projections developed in previous reports and various studies. Population projections also consider plans for accessory dwelling unit (ADU) development, connection of unsewered areas to the collection system, and Transit Oriented Development (TOD) anticipated within the Sand Inland Sewer Basin. The 2021 Carollo report presents both population and wastewater flow projections associated with residential, commercial, resort and transient oriented development (TOD) wastewater flow sources. The specific information sources for the population projections cited in the report are presented in Table 8-1 *Data Sources Used to Develop Population and Flow Projections*.

Table 8-1: Data Sources Used to Develop Population and Flow Projections

Data Source Reference	Description of Information Referenced	Year
City TAZ GIS Data ⁽¹⁾	Updated Residential TAZ Data	2010, 2040
Technical Memorandum Basis of Planning: Population, Flow, Wastewater and Foul Air Characteristics and Loads ⁽²⁾	Commercial and Resort TAZ Data	2000, 2030, 2055
City ADU Approval Data	Approvals for the period 2017 - 2019	Projected to 2045
TM, Unsewered Area Analysis ⁽³⁾	Expected conversion of onsite systems	2045
City TOD GIS Data ⁽⁴⁾	Residential equivalent TOD data, Anticipated TOD Development Schedule, TOD Station Area Growth Projections	Ultimate Build-out (undefined, to be determined by the City)

Key: TAZ = traffic area zones; GIS = geographic information system; TAZ = traffic area zones; ADU = accessory development unit; TM = Technical Memorandum; TOD = transit-oriented development.

Notes:

(1) City and County of Honolulu, City traffic area zones (TAZ) residential-only GIS Data.

(2) Basis of Planning: Population, Flow Wastewater and Foul Air Characteristics and Loads (TM-PFWF), by R.M. Towill, 2018.

(3) Technical Memorandum (TM), Unsewered Area Analysis by Carollo Engineers, 2021.

(4) City TOD residential equivalent GIS data provided by Brown and Caldwell in June 2020.

Data Source: *City and County of Honolulu Department of Environmental Services Sand Island Wastewater Treatment Plant and Sewer Basin Facilities Plan, Wastewater Flow and Load Projections Report, prepared by Carollo Engineers, June 2021.*

The population presented in Figure 8.1 and Table 8-2 (for the years 2010 and 2017) of the 2021 Carollo report, were used, first, to calculate the annual growth factor and then, to calculate the year 2020 projected population using the calculated projected factor.

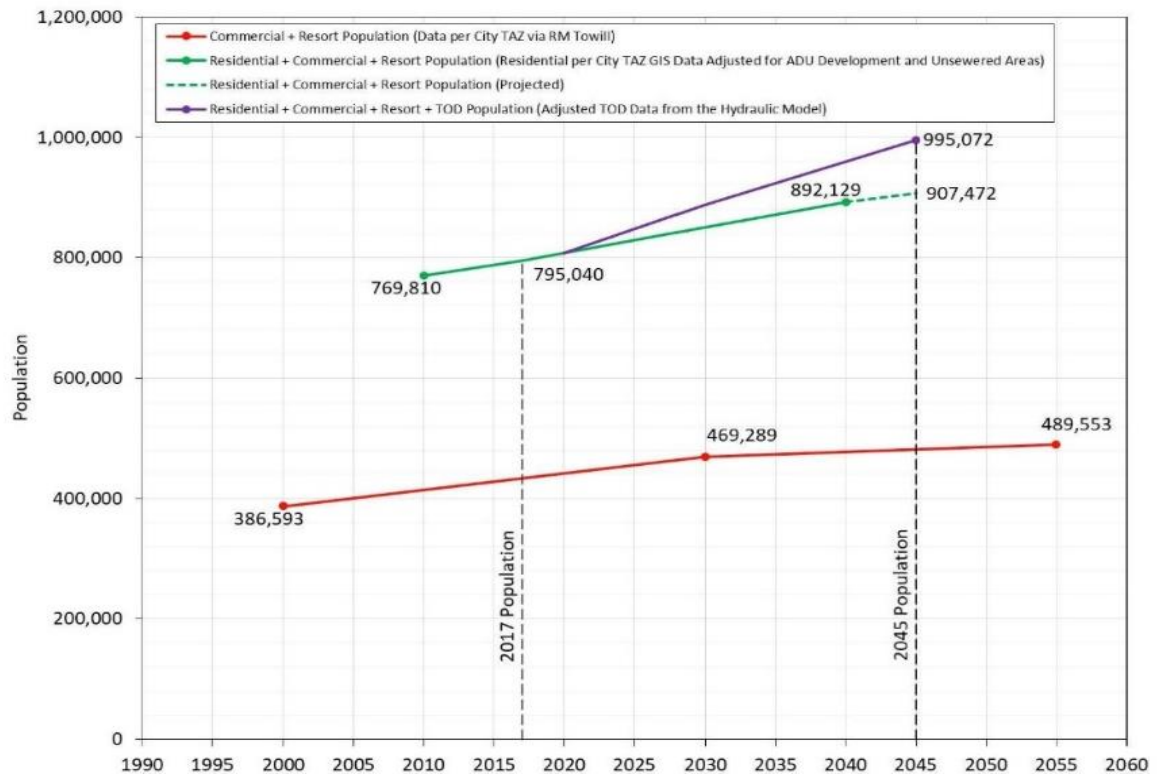


Figure 8-1. Population Projections for the Sand Island Sewer Basin (from 2021 Carollo Report)

According to the 2021 Carollo report, the growth rate is higher for the period 2020-2045 due to the TOD-related population increase throughout the basin as a result of the anticipated build out starting in 2020.

In order to account for the TOD-related population growth, it was necessary to calculate the growth rate in two steps because the growth rates are different for the periods 2010-2020 and 2020-2045 as shown in Figure 8.1 above. The formula presented below, which is the standard formula for calculating percentages, was used, herein, to calculate population projections for the years 2018 through 2020 (below) using the 2010 and 2017 populations presented in the 2021 Carollo report.

Growth Rate Percent ₂₀₁₀₋₂₀₁₇ (%) =	$\frac{[(\text{Year B} - \text{Year A})]}{\text{Year A} * n]}$	* 100 =	$\frac{[(795,040-769,810)]}{769,810) * 7]}$	* 100	= 0.47 %
<i>Where n is the number of years between Years A and B population projections. Year A is 2010 and year B is 2017.</i>					
<i>Using the annual growth rate is 0.47% over the period of 2010 – 2020 calculated above, the population for years 2018, 2019 and 2020 are then calculated using the following formula:</i>					
<i>Population in Year 2 = Population in Year 1 * (1 + Annual Growth Rate as a decimal)</i>					
<i>2018 Population = 2017 population * 1.0047 = 795,040 * 1.0047 = 798,777</i>					
<i>2019 Population = 2018 population * 1.0047 = 798,777 * 1.0047 = 802,531</i>					
<i>2020 Population = 2019 Population * 1.0047 = 802,531 * 1.0047 = 806,302</i>					

The population growth attributed to TOD starts in 2020 and increases linearly, resulting in a total TOD projected population of 87,600 in 2045. Since the population growth rate is linear between the period of 2020 to 2045, the same standard calculation formula for the growth factor was used to calculate the rate of growth for the period of 2020 to 2045 which includes the period (2021-2025), of interest for the local limits evaluation.

The growth factor was also used to calculate the 2025 population projection using the standard formula and the population projections in the 2021 Carollo report. The addition of the TOD population substantially increases the population growth factor from 0.47% for the period of 2017 to 2020, to 0.94% for the period 2020 to 2025.

Growth Rate Percent₂₀₂₀₋₂₀₄₅ (%) =	$\frac{[(\text{Year D} - \text{Year C})]}{\text{Year C} * n}]$	* 100 =	$\frac{[(995,072-806,302)]}{806,302 * 25}]$	* 100	= 0.94 %
<i>Where n is the number of years between Years D and C population projections. Year C is 2020 and year D is 2045.</i>					
<i>Using the annual growth rate is 0.94% over the period of 2020 – 2045 calculated above, the population for years 2021, 2022, 2023, 2024 and 2025 are then calculated using the following formula:</i>					
<i>Population in Year 2 = Population in Year 1 * (1 + Annual Growth Rate as a decimal)</i>					
<i>2021 Population = 2020 population * 1.0094 = 806,302 * 1.0094 = 813,881</i>					
<i>2022 Population = 2021 population * 1.0094 = 813,881 * 1.0094 = 821,532</i>					
<i>2023 Population = 2022 Population * 1.0094 = 821,532 * 1.0094 = 829,254</i>					
<i>2024 Population = 2023 population * 1.0094 = 829,254 * 1.0094 = 837,049</i>					
<i>2025 Population = 2024 Population * 1.0094 = 837,049 * 1.0094 = 844,917</i>					

The population and associated growth factors for the various key dates as presented in Figure 2.1 and Table 2.4 of the 2021 Carollo report and are summarized in Table 8-2, *Sand Island Sewer Basin Population Projections*, below.

Table 8-2: Sand Island Sewer Basin Population Projections

Population Type	Year	Population Equivalent	Population Growth per year 2017-2045 Period	Population Growth per year 2010-2017 Period	Population Growth per year 2017-2020 Period	Population Growth per year 2020-2025 Period
Residential	2017	361,585	0.66%			
	2045	425,851				
Commercial	2017	364,572	0.53%			
	2045	416,925				
Resort	2017	68,883	- 0.23%			
	2045	64,696				
TOD	2017	NA	NA			
	2020	0 ⁽¹⁾				

Population Type	Year	Population Equivalent	Population Growth per year 2017-2045 Period	Population Growth per year 2010-2017 Period	Population Growth per year 2017-2020 Period	Population Growth per year 2020-2025 Period
	2045	87,600				
Total Population	2010	769,810		0.47%		
	2017	795,040	0.90%		0.47%	
	2020	806,302 ⁽²⁾		0.94%		
	2025	844,916 ⁽³⁾				
	2045	995,072				
Annual Percentage Population Increase:						0.94%

Key: NA = not applicable; TOD = transit-oriented development.

Notes:

(1) TOD population starts in 2020 (at zero) and is projected to linearly increase to 87,600 by 2045, per the TAZ population projection. A growth factor cannot be calculated for a starting population value of zero.

(2) Since TOD population starts in 2020, total population for 2020 was calculated to determine the growth factor between years 2020-2025. The 2020 population calculation is based on the reported total population of 769,810 for year 2010 (in the data source Figure 2.1) and the calculated linear growth factor of 0.47% (which applies for years 2010-2020, as well as years 2017-2020).

(3) Total population for 2025 was calculated to determine the growth factor for the period of 2020-2025. The 2025 population calculation is based on the calculated 2020 population and the application of the calculated linear growth factor of 0.94% (which applies to the period of 2020-2045).

Data Source: *City and County of Honolulu Department of Environmental Services Sand Island Wastewater Treatment Plant and Sewer Basin Facilities Plan, Wastewater Flow and Load Projections Report, prepared by Carollo Engineers, June 2021 – Table 2.4 and Figure 2.1.*

For the purpose of this local limits evaluation, the GA was based on the annual growth rate of 0.94%. As a result, a GA of 3.80% $((1+0.0094)^4-1)*100$ was used in the MAIL calculations.

8.1.5 MAIL Calculation

The estimated maximum loadings of all POCs received at the headworks to the WWTP without causing pass through or interference and after discounting loadings for uncontrolled sources, hauled waste, safety factor and growth allowance, are presented in Table 8-3, *Maximum Allowable Industrial Load Calculations*, below. Although all 20 POCs were originally identified in the Study and were sampled during this local limits evaluation, two of these pollutants (Chlordane and Dieldrin) were not detected in any influent, effluent, uncontrolled source, hauled waste or SIU sample collected. Considering both Chlordane and Dieldrin are not EPA POCs and they were not detected in local limits samples, they were eliminated from MAHL, MAIL and local limits calculation, pursuant to the EPA Local Limits Development Guidance Manual.

Table 8-3: Maximum Allowable Industrial Load Calculations

Pollutant	Most Stringent MAHL (Lbs./Day)	Safety Factor	Growth Allowance Factor	Safety Factor Loading (Lbs./Day)	Growth Allowance Loading (Lbs./Day)	Average Uncontrolled Source Influent Loading (Lbs./Day)	Average Hauled Waste Loading (Lbs./Day)	Maximum Allowable Industrial Load MAIL (Lbs./Day)	Uniform Concentration Local Limit (mg/L)	Current Proposed Sand Island Local Limit
Arsenic	1.61	10%	NR	0.161	NR	0.557	0.00009	0.89	0.17	--
BOD ₅	94,013	10%	3.80%	9,401.3	3,572	51,472	1.33	29,566	5,696	1,449 mg/L
Cadmium	1.13	10%	NR	0.113	NR	0.149	0.00014	0.87	0.17	--
Chromium	5.34	10%	NR	0.534	NR	2.16	0.00097	2.65	0.51	--
Copper	25.77	10%	NR	2.58	NR	9.07	0.01118	14.11	2.72	--
Cyanide, Total	49.87	10%	NR	4.99	NR	6.07	0.00020	38.81	7.48	--
Lead	7.12	10%	NR	0.712	NR	0.387	0.00157	6.02	1.16	--
Mercury	0.19	10%	NR	0.019	NR	0.018	0.000001	0.15	0.03	--
Molybdenum	2.66	10%	NR	0.266	NR	0.815	0.00032	1.58	0.30	--
Nickel	23.2	10%	NR	2.32	NR	1.68	0.00137	19.16	3.69	--
Nitrogen, Ammonia	748,098	10%	NR	74,810	NR	7,879	0.02	665,409	128,196	--
Oil and Grease	No Basis	10%	NR	No Basis	NR	9,930	0.98	No Basis	WWTP Protection	--
PFOA	1.98	10%	NR	0.198	NR	0.00190	0.000000086	1.78	0.34	--
PFOS	1.54	10%	NR	0.154	NR	0.00165	0.000000048	1.39	0.27	--
Selenium	1.87	10%	NR	0.187	NR	0.419	0.00003	1.26	0.24	--
Silver	114.7	10%	NR	11.47	NR	0.223	0.00008	103.0	19.8	--
Surfactants	No Basis	10%	NR	No Basis	NR	2,308	0.88	No Basis	No Basis	--
TPH*	37,405	10%	NR	3,740	NR	3,714	0.45	29,950	100	--
TSS	99,655	10%	3.80%	9,966	3,787	44,744	3.70	41,155	7,929	488 mg/L
Zinc	55.28	10%	NR	5.53	NR	36.97	0.050	12.73	2.45	24.09 lbs./day

Key: NR = Not Recorded; No Limit Value specified in NPDES permit or EPA guidance document.

"--" indicates no proposed City local limit applies.

*Note, the referenced uniform concentration local limit for TPH was selected per the April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*, which provides a basis for establishing a 100 mg/L Non-SGT HEM (TPH as well as the mineral-based Oil and Grease) local limit and with consideration of the City's current Total Petroleum Hydrocarbon limitation specified in ROH Chapter 14, Article 5, Section 14-1.9(g)(19).

8.2 Uniform Concentration Local Limits Calculation

Once the MAIL is calculated, the local limit is then calculated for each POC, where it is evaluated along with the pollutant loading from each source, as well as the potential for SIUs to discharge the pollutant to the WWTP. This local limits evaluation uses the uniform concentration local limit calculation method.

Uniform concentration limits are calculated by dividing the MAIL by the total IU flow times 8.34 to convert to a total mass allocation into a concentration-based limit. Uniform local limits are very conservative since the allocation of the MAIL includes those dischargers that do not discharge a particular pollutant. Uniform local limits are the equitable and simple to implement since the WWTP would not be required to track individual allocations of each pollutant. Table 8-4, *Uniform Concentration Local Limits Calculations*, presents the calculated uniform concentration local limits based on the MAIL and an SIU flow rate of 0.62237 MGD.

$\text{Uniform Concentration Limit} = \frac{\text{MAIL}}{8.34 * \text{Total Average Daily SIU Flow (0.62237 MGD)}}$

Table 8-4: Uniform Concentration Local Limits Calculations

Pollutant	Maximum Allowable Industrial Load MAIL (Lbs./Day)	Corresponding Uniform Concentration Local Limit (mg/L)	MAIL Criterion
Arsenic	0.89	0.17	Biosolids
BOD ₅	29,566	5,696	Effluent
Cadmium	0.87	0.17	Biosolids
Chromium	2.65	0.51	Biosolids
Copper	14.11	2.72	Effluent
Cyanide, Total	38.81	7.48	Effluent
Lead	6.02	1.16	Biosolids
Mercury	0.15	0.03	Biosolids
Molybdenum	1.58	0.30	Biosolids
Nickel	19.16	3.69	Biosolids
Nitrogen, Ammonia	665,409	128,196	Influent Inhibition
Oil and Grease	No Basis	No Basis	No Basis
PFOA	1.78	0.34	Effluent
PFOS	1.39	0.27	Effluent
Selenium	1.26	0.24	Biosolids
Silver	103.0	19.8	Effluent
Surfactants	No Basis	No Basis	No Basis
TPH*	29,950	100	Influent Inhibition
TSS	41,155	7,929	Effluent
Zinc	12.73	2.45	Biosolids

* Note, the referenced uniform concentration local limit for TPH was selected per the April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*, which provides a basis for establishing a 100 mg/L Non-SGT HEM (TPH as well as the mineral-based Oil and Grease) local limit and with consideration of the City's current Total Petroleum Hydrocarbon limitation specified in ROH Chapter 14, Article 5, Section 14-1.9(g)(19).

8.3 Local Limits Evaluation for Each POC

Evaluation of calculated MAILs, review of pollutant loading and loading source sampling data, and determination of the need to establish local limits for the WWTP are presented in the sections below.

8.3.1 Arsenic: Proposed Limit: None Proposed.

The limiting criterion for the Arsenic MAHL was identified to be the Biosolids criterion where the calculated **Arsenic MAHL is 1.61 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions corresponds to an **Arsenic MAIL limitation of 0.89 lb./day (and an Arsenic uniform concentration local limit of 0.17 mg/L)**, based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Arsenic loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility average influent Arsenic loading was 0.638 lb./day (corresponding to 39.6% MAHL)
- facility maximum influent Arsenic loading was 0.962 lb./day (corresponding to 59.9% MAHL)
- the average uncontrolled source Arsenic loading was 0.557 lb./day (corresponding to 34.6% MAHL)
- the average domestic hauled waste Arsenic loading was 0.0009 lb./day (corresponding to 0.006% MAHL)
- the average SIU Arsenic loading was 0.005 lb./day (corresponding to 0.31% MAHL)
- the maximum SIU Arsenic loading was 0.020lb./day (corresponding to 1.24% MAHL)

A summary of the Arsenic concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent concentration for Arsenic was 0.00145 mg/L
- the average effluent concentration for Arsenic was 0.00118 mg/L
- the average uncontrolled source Arsenic concentration was 0.00119 mg/L
- the average domestic hauled waste Arsenic concentration was 0.0198 mg/L
- the average SIU Arsenic concentration was 0.0009 mg/L
- the maximum SIU Arsenic concentration was 0.0038 mg/L

Establishing a local limit for Arsenic is not warranted at this time considering the moderate Arsenic loading in WWTP influent, and from uncontrolled sources, and very low Arsenic loading from domestic hauled waste sources and SIU sources (all indicators that the WWTP is adequately protected). Arsenic is a common pollutant naturally occurring in stormwater and groundwater and can impact the WWTP sanitary sewer collection system wastewater quality by inflow and infiltration (I&I). Considering the major contributions of Arsenic to the WWTP appear to be the uncontrolled source, and not the SIUs (where the maximum SIU Arsenic concentration is 0.0038 mg/L), establishing an Arsenic local limit is not expected to

effectively reduce Arsenic concentrations in WWTP influent. Considering these factors, there is no justification for a technically based local limit for Arsenic at this time. **No local limit is proposed.**

8.3.2 BOD₅: 2019 Proposed Local Limit: 1,449 mg/L. Current Proposed Local Limit: 5,696 mg/L and MAIL of 29,566 lbs/day.

The most stringent BOD₅ MAHL criterion was the WWTP NPDES permit effluent criterion. The calculation of AHLs for conventional pollutant BOD₅ was performed based on the WWTP design capacity and all applicable discharge criteria. Accordingly, the most and second most stringent AHL criteria are the WWTP NPDES permit effluent criterion and the WWTP design criterion, respectively.

EPA recommends that local limits are needed when average monthly influent loading reaches 80% of average POTW design capacity for BOD₅ during any one month in the 12-month period preceding the analysis. For the WWTP, the average monthly influent BOD₅ loading value for the 12-month period of January - December 2020 was 48.1%, well below the 80% of the WWTP average design capacity for BOD₅.

Comparing WWTP monitoring results to all applicable NPDES permit limits is another key step in local limits evaluation for BOD₅. The WWTP effluent BOD₅ data for the period of January 2016 – December 2020 was reviewed and compared to the interim concentration and loading limits specified in the WWTP NPDES permit, as established under CD Civil No. 94-00765 DAE-KSC effective 12/17/2010. There was one exceedance of the interim average weekly concentration and loading limits (which occurred in March 2019); however, it was not attributed to excessive influent loading at the headworks or to SIU discharges. There were no exceedances of the interim average monthly BOD₅ concentration or loading NPDES permit limits during the January 2016-December 2020 evaluation period.

The evaluation of the BOD₅ loadings, as determined by WWTP flows and sampling data collected over the period of January through June 2021 (associated with both the wet weather and dry weather local limits sampling and routine daily plant sampling) indicates that the BOD₅ loadings to the WWTP were, on average, 67.1% of the WWTP NPDES permit effluent criteria AHL. The calculated **BOD₅ MAHL loading of 94,013 lbs./day**, along with the application of a 10% safety factor, a 3.80% GA, and allocations set aside for uncontrolled sources and domestic hauled waste contributions corresponds to a **BOD₅ MAIL of 29,566 lbs./day and a BOD₅ uniform concentration local limit of 5,696 mg/L**. These values were calculated based on the application of the interim average weekly and average monthly concentration and loading limits specified in the WWTP NPDES permit, as established under CD Civil No. 94-00765 DAE-KSC effective 12/17/2010. A summary of the WWTP NPDES permit effluent criteria based MAHL, MAIL, and calculated uniform local limit for BOD₅ is presented in Table 7-6, *WWTP BOD₅ Loadings and Effluent Criteria Local Limits Evaluation*.

The BOD₅ loading to the facility associated with 2021 local limits sampling and WWTP sampling data is summarized below:

- facility average influent BOD₅ loading (associated with the January through June 2021 daily WWTP influent sampling and daily facility flows) was 63,119 lbs./day (corresponding to 67.1% MAHL)
- facility maximum influent BOD₅ loading (associated with the January through June 2021 daily WWTP influent sampling and daily facility flows) was 69,766 lbs./day (corresponding to 74.2% MAHL) *note, this maximum BOD₅ loading value was not calculated using the Outlier concentration value of 542 mg/L*

- the average uncontrolled source BOD₅ loading was 51,472 lbs./day (corresponding to 54.7% MAHL)
- the maximum uncontrolled source BOD₅ loading was 73,351 lbs./day (corresponding to 78.0% MAHL)
- the average hauled waste BOD₅ loading was 1.33 lbs./day (corresponding to 0.0014% MAHL)
- the average hauled waste BOD₅ concentration was 307 mg/L
- the average SIU BOD₅ loading was 2,841 lbs./day (corresponding to 3.0% MAHL)
- the maximum SIU BOD₅ loading was 21,126 lbs./day (corresponding to 22.5% MAHL)
- the average SIU BOD₅ concentration was 547.4 mg/L
- the maximum SIU BOD₅ concentration was 4,070 mg/L

A review of the WWTP design criteria calculations presented Table 7-5, *WWTP Design Criteria-based Local Limits Evaluation*, as well as the BOD₅ concentrations and loadings from the WWTP influent, uncontrolled source, hauled waste source and SIU source indicate the following:

- The average monthly influent BOD₅ loading is 48.1% of the WWTP design treatment capacity, and does not exceed the 80% WWTP design pollutant treatment capacity threshold
- A review of the BOD₅ source loading to the WWTP indicate the uncontrolled source is the predominant source of BOD₅, contributing between 54.7% MAHL (average basis) and 87.0% MAHL (maximum basis)
- Hauled waste source BOD₅ loadings are minimal, contributing 0.0014% of MAHL (average basis)
- SIU source BOD₅ loading contribute between 3.0% MAHL (average basis) and 22.5% MAHL (maximum basis)
- SIU source BOD₅ concentrations ranged between 547.4 mg/L (average) to 4,070 mg/L (maximum), and are lower than the calculated BOD₅ local limit of 5,696 mg/L. However, the SIU maximum value exceeds the current city BOD₅ local limit of 1,440 mg/L.

In summary, the influent BOD₅ loading to the WWTP is primarily sourced from the uncontrolled source, which contributes between 54.7% MAHL (average basis) and 87.0% MAHL (maximum basis). The SIU source BOD₅ loading contributions range between 3.0% MAHL (average basis) and 22.5% MAHL (maximum basis), and the hauled waste BOD₅ loading contributions are very low, contributing 0.0014% of MAHL.

The calculated BOD₅ local limit of 5,696 mg/L differs from the previous 2019 local limit recommendation of 1,449 mg/L for BOD₅. This is due to the fact that the 2021 local limit calculation used average BOD and average daily WWTP flows, whereas the 2019 local limit calculation used maximum BOD and WWTP design flows.

A review of the impact associated with applying the 2019 proposed BOD₅ local limit, versus the current calculated BOD₅ local limit, to the current SIUs was then performed. The maximum BOD₅ concentration result detected in SIU local limit samples collected in February and June 2021 was 4,070 mg/L which exceeds the 2019 proposed 1,449 mg/L BOD₅ local limit but is less than the current calculated 5,696 mg/L BOD₅ local limit. A review of the historic SIU data indicates that two SIUs have periodically discharged wastewater with BOD₅ concentrations that exceeded the 2019 proposed 1,449 mg/L BOD₅ local limit. Also, the total BOD₅ loading from all current SIUs combined is well below the current calculated MAIL of 29,566 lbs./day BOD₅. Considering that the current proposed BOD₅ local limit was calculated using current average flows from the WWTP, uncontrolled source, type 1 hauled waste, SIUs, and recent BOD₅ sampling results, the 2021 values are more representative of current conditions. Therefore, there is a technically

based justification to establish both, a BOD₅ uniform concentration-based local limit and a BOD₅ MAIL to provide flexibility in imposing a limit on the SIUs and to minimize the impact on the current SIUs without causing harm to the WWTP or affecting its compliance status. **Therefore, an increase to the 2019 proposed BOD₅ local limit (from 1,449 mg/L to 5,696 mg/L) and the establishment of a BOD₅ MAIL of 29,566 lbs./day is now proposed.**

8.3.3 Cadmium: Proposed Local Limit: None Proposed

The limiting criteria for Cadmium MAHL was identified to be the Biosolids criteria. Specifically, a **Cadmium MAHL of 1.13 lbs./day** was calculated. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions results in a **Cadmium MAIL of 0.87 lb./day (and the corresponding Cadmium uniform concentration local limit of 0.17 mg/L**, based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Cadmium loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Cadmium loading was 0.140 lb./day (corresponding to 12.4% MAHL)
- facility influent maximum Cadmium loading was 0.161 lb./day (corresponding to 14.3% MAHL)
- the average uncontrolled source Cadmium loading was 0.149 lb./day (corresponding to 13.2% MAHL)
- the average hauled waste Cadmium loading was 0.00014 lb./day (corresponding to 0.0001% MAHL)
- the average and maximum SIU Cadmium concentrations were below the EPA ML, resulting in a loading of 0.0017 lb./day (corresponding to 0.15% MAHL)

A summary of the Cadmium concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Cadmium concentration was 0.000318 mg/L
- the average effluent Cadmium concentration was 0.000318 mg/L
- the average uncontrolled source Cadmium concentration was 0.000318 mg/L
- the average hauled waste Cadmium concentration on was 0.016 mg/L
- the average SIU Cadmium concentration was 0.000318 mg/L
- the maximum SIU Cadmium concentration was 0.000318 mg/L

Establishing a local limit for Cadmium is not warranted at this time considering the number of non-detection occurrences (below the EPA ML) observed for Cadmium in both facility influent and effluent samples, as well as the low Cadmium loading from uncontrolled sources, domestic hauled waste sources and SIU sources (all indicators the WWTP is adequately protected. Considering these factors, there is no technically based justification for a Cadmium local limit at this time. **No local limit is proposed.**

8.3.4 Chromium: Proposed Local Limit: None Proposed

The only limiting criteria for Chromium MAHL was identified to be the Biosolids criteria, where the calculated **Chromium MAHL is 5.34 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions

correspond to a **Chromium MAIL of 2.65 lbs./day and a Chromium uniform concentration local limit of 0.51 mg/L**. These limitations are based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Chromium loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Chromium loading was 1.85 lbs./day (corresponding to 34.6% MAHL)
- facility influent maximum Chromium loading was 3.34 lbs./day (corresponding to 62.5% MAHL)
note, this maximum Chromium loading value was not calculated using the Outlier concentration value of 0.0199 mg/L.
- the average uncontrolled source Chromium loading was 2.16 lbs./day (corresponding to 40.5% MAHL)
- the average hauled waste Chromium loading was 0.001 lb./day (corresponding to 0.0002% MAHL)
- the average SIU Chromium loading was 0.025 lb./day (corresponding to 0.47% MAHL)
- the maximum SIU Chromium loading was 0.076 lb./day (corresponding to 1.42% MAHL)

A summary of the Chromium concentrations associated with 2021 local limits sampling data are as follows:

- the average influent Chromium concentration was 0.0042 mg/L
- the average effluent Chromium concentration was 0.0024 mg/L
- the average uncontrolled source Chromium concentration was 0.0046 mg/L
- the average hauled waste Chromium concentration was 0.2243 mg/L
- the average SIU Chromium concentration was 0.0049 mg/L
- the maximum SIU Chromium concentration was 0.0146 mg/L

It is our finding that establishing a local limit for Chromium is not warranted at this time considering the moderate Chromium loading in WWTP influent, and from uncontrolled sources, and very low Chromium loading from domestic hauled waste sources and SIU sources (all indicators the WWTP is adequately protected). Considering the major contributions of Chromium appear to be sourced from the uncontrolled source (where the average Chromium loading is 40.5% of influent MAHL), and not SIUs (where the average SIU Chromium loading is only 0.47% MAHL), establishing a Chromium local limit is not expected to effectively reduce Chromium concentrations in WWTP influent. Considering these factors, there is no technically based justification for establishing a local limit for Chromium at this time. **No local limit is proposed.**

8.3.5 Copper: Proposed Limit: None Proposed

The limiting criterion for Copper MAHL was identified to be the WWTP NPDES permit effluent criterion. Specifically, a **Copper MAHL of 25.77 lbs./day** was calculated. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions results in a **Copper MAIL of 14.11 lbs./day (and the corresponding Copper uniform concentration local limit of 2.72 mg/L)**. These values were calculated based on the application of HAR Chapter 11-54, Marine Acute and Chronic Effluent Criterion for Copper, as referenced in the WWTP NPDES permit.

The Copper loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Copper loading was 12.19 lbs./day (corresponding to 47.3% MAHL)
- facility influent maximum Copper loading was 15.6 lbs./day (corresponding to 60.4% MAHL) *note, this maximum Copper loading value was not calculated using the Outlier concentration value of 0.0580 mg/L*
- the average uncontrolled source copper loading was 9.1 lbs./day (corresponding to 35.9% MAHL)
- the average hauled waste Copper loading was 0.0112 lb./day (corresponding to 0.0004% MAHL)
- the average SIU Copper loading was 0.217 lb./day (corresponding to 0.84% MAHL)
- the maximum SIU Copper loading was 0.726 lb./day (corresponding to 2.8% MAHL)

A summary of the Copper concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Copper concentration was 0.0281 mg/L
- the average effluent Copper concentration was 0.0132 mg/L
- the average uncontrolled source Copper concentration was 0.0194 mg/L
- the average hauled waste Copper concentration was 2.59 mg/L
- the average SIU Copper concentration was 0.042 mg/L
- the maximum SIU Copper concentration was 0.140 mg/L

Establishing a local limit for Copper is not warranted at this time considering the facility's moderate average influent loading of Copper (only 47.3% of the MAHL), as well as the observation that the Copper is primarily from the uncontrolled sources (where the average Copper loading was 35.9% of the MAHL) and the fact that the use of copper water supply piping is no longer the prevalent material currently used in new construction.

Also, low Copper loadings were observed from the domestic hauled waste source (where the average Copper loading was 0.0004% of the MAHL) and the sampled SIUs (where the average Copper loading was 0.84% of the MAHL). Both are additional indicators that the WWTP is adequately protected. Considering all these factors, establishing a Copper local limit is not warranted at this time. **No local limit is proposed.**

8.3.6 Cyanide: Proposed Limit: None Proposed

The limiting criterion for Cyanide MAHL was identified to be the WWTP NPDES permit effluent criterion, where the calculated **Cyanide MAHL is 49.87 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions, corresponds to a **Cyanide MAIL of 38.81 lbs./day and a Cyanide uniform concentration local limit of 7.47 mg/L**. These values were calculated based on the application of HAR Chapter 11-54, Marine Acute and Chronic Effluent Criterion for Cyanide, as referenced in the WWTP NPDES permit.

The Cyanide loadings to the facility, associated with the 2021 local limits sampling results, are as follows:

- facility influent average Cyanide loading was 4.19 lbs./day (corresponding to 8.4% MAHL)
- facility influent maximum Cyanide loading was 4.83 lbs./day (corresponding to 9.7% MAHL) *note, this maximum Cyanide loading value was not calculated using the Outlier concentration value of 0.021 mg/L.*
- the average uncontrolled source Cyanide loading was 6.07 lbs./day (corresponding to 12.17% MAHL)
- the average hauled waste Cyanide loading was 0.0002 lb./day (corresponding to 0.000004% MAHL)
- the average SIU Cyanide loading was 0.097 lb./day (corresponding to 0.19% MAHL)
- the maximum SIU Cyanide loading was 0.332 lb./day (corresponding to 0.67% MAHL)

A summary of the Cyanide concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Cyanide concentration was 0.0095 mg/L
- the average effluent Cyanide concentration 0.0095 mg/L
- the average uncontrolled source Cyanide concentration was 0.013 mg/L
- the average hauled waste Cyanide concentration was 0.046 mg/L
- the average SIU Cyanide concentration was 0.0186 mg/L
- the maximum SIU Cyanide concentration was 0.0640 mg/L

The average WWTP influent loading of Cyanide was low (only 8.4% of the MAHL), where the source of Cyanide appears to be primarily from uncontrolled sources (with an average Cyanide loading of 12.7% of MAHL). The low average influent and uncontrolled source Cyanide loadings, and very low Cyanide loadings observed from both the domestic hauled waste source (where the average Cyanide loading was 0.000004% of MAHL) and SIU sources (where the average Cyanide loading was 0.19% of the MAHL) are all indicators that the WWTP is adequately protected. Considering these factors, establishing a Cyanide local limit is not warranted at this time. **No local limit is proposed.**

8.3.7 Lead: Proposed Limit: None Proposed

The limiting criterion for Lead MAHL was identified to be the Biosolids criterion. Specifically, a Lead **MAHL of 7.12 lbs./day** was calculated, resulting in a **Lead MAIL of 6.02 lbs./day (and the corresponding Lead uniform concentration of 1.16 mg/L)**. These values were calculated based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Lead loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Lead loading was 0.767 lb./day (corresponding to 10.8% MAHL)
- facility influent maximum Lead loading was 2.245 lbs./day (corresponding to 31.5% MAHL)
- the average uncontrolled source Lead loading was 0.387 lb./day (corresponding to 5.44% MAHL)
- the average hauled waste Lead loading was 0.0016 lb./day (corresponding to 0.02% MAHL)
- the average SIU Lead loading was 0.015 lb./day (corresponding to 0.21% MAHL)
- the maximum SIU Lead loading was 0.083 lb./day (corresponding to 1.17% MAHL)

A summary of the Lead concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Lead concentration was 0.0017 mg/L
- the average effluent Lead concentration was 0.0006 mg/L
- the average uncontrolled source Lead concentration was 0.0008 mg/L
- the average hauled waste Lead concentration was 0.3621 mg/L
- the average SIU Lead concentration was 0.0029 mg/L
- the maximum SIU Lead concentration was 0.0159 mg/L

Establishing a local limit for Lead is not warranted at this time considering the WWTP's low influent loading of Lead, and the low Lead loading from uncontrolled sources, Type I hauled waste sources and SIU sources, all indicators that the WWTP is adequately protected. Considering these factors, there is no technically based justification for a Lead local limit at this time. **No local limit is proposed.**

8.3.8 Mercury: Proposed Limit: None Proposed

The limiting criterion for Mercury MAHL was identified to be the Biosolids criterion, where the calculated Mercury **MAHL is 0.19 lb./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions, corresponds to a **Mercury MAIL of 0.15 lbs./day and a Mercury uniform concentration local limit of 0.03 mg/L**. These values were calculated based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Mercury loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Mercury loading was 0.0578 lb./day (corresponding to 30.5% MAHL)
- the average uncontrolled source Mercury loading was 0.0183 lb./day (corresponding to 9.6% MAHL)
- the average hauled waste Mercury loading was 0.0000011 lb./day (corresponding to 0.0006% MAHL)
- the average SIU Mercury loading was 0.00026 lb./day (corresponding to 0.14% MAHL)
- the maximum SIU Mercury loading was 0.0011 lb./day (corresponding to 0.58% MAHL)

A summary of the Mercury concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Mercury concentration was 0.00013 mg/L

- the average effluent Mercury concentration was 0.000027 mg/L
- the average uncontrolled source Mercury concentration was 0.000039 mg/L
- the average hauled waste Mercury concentration was 0.00026 mg/L
- the average SIU Mercury concentration was 0.00005 mg/L
- the maximum SIU Mercury concentration was 0.00021 mg/L

In summary, all Mercury influent and effluent local limit sample results were below the EPA ML. Mercury was not detected above the MDL in all 20 effluent local limit samples. Mercury was not detected above the MDL in 10 of the 20 influent local limits samples, and the results of the remaining 10 out of the 20 influent local limit samples were below the EPA ML.

Upon evaluation of the pollutant loading values, Mercury appears to be sourced predominantly from uncontrolled source flows, where the average Mercury loading was 9.6% of the MAHL. However, all uncontrolled source sample results were below the EPA ML, and variation in the MDL was observed for this sample set. The source of Mercury does not appear to be the domestic hauled waste (where the average Mercury loading was 0.0006% of MAHL) or SIU sources (where the average Mercury loading was 0.14% of the MAHL). Both are further indication that Mercury is properly controlled. Mercury is a common stormwater pollutant in many communities and is the result of atmospheric deposition. Mercury can be discharged to the sanitary sewer system through uncontrolled inflow and infiltration sources, as well as from construction-related groundwater dewatering activities discharging into the sanitary sewer system. Considering that the sources of Mercury do not appear to be associated with SIUs or hauled waste sources, establishing a Mercury local limit is not expected to effectively control Mercury discharges to the WWTP. In addition, there was no incidence of WWTP noncompliance regarding all applicable Mercury limitations, therefore, there is no technically based justification for a Mercury local limit at this time. **No local limit is proposed.**

8.3.9 Molybdenum: Proposed Limit: None Proposed

The limiting criterion for Molybdenum MAHL was identified to be the Biosolids criterion, where the calculated **Molybdenum MAHL is 2.66 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions, corresponds to a **Molybdenum MAIL of 1.58 lbs./day and a Molybdenum uniform concentration local limit of 0.30 mg/L**, based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Molybdenum loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Molybdenum loading was 1.52 lbs./day (corresponding to 57.0% MAHL)
- facility influent maximum Molybdenum loading was 2.23 lbs./day (corresponding to 84.0% MAHL). *Note, this maximum Molybdenum loading value was not calculated using the two Outlier concentration values of 0.0221 mg/L and 0.0076 mg/L*
- the average uncontrolled source Molybdenum loading was 0.815 lb./day (corresponding to 30.6% MAHL)
- the average hauled waste Molybdenum loading was 0.0032 lb./day (corresponding to 0.12% MAHL)
- the average SIU Molybdenum loading was 0.045 lb./day (corresponding to 1.7% MAHL)

- the maximum SIU Molybdenum loading was 0.2995 lb./day (corresponding to 11.3% MAHL)

A summary of the Molybdenum concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Molybdenum concentration was 0.0035 mg/L
- the average effluent Molybdenum concentration was 0.0033 mg/L
- the average uncontrolled source Molybdenum concentration was 0.0017 mg/L
- the average hauled waste Molybdenum concentration was 0.0730 mg/L
- the average SIU Molybdenum concentration was 0.0087 mg/L
- the maximum SIU Molybdenum concentration was 0.0577 mg/L

The relatively high MAHL for Molybdenum is attributed to the low (14.1%) Influent - biosolids WWTP pollutant removal efficiency. This pollutant removal efficiency was used for MAHL calculation because there is no available EPA Local Limits Development Guidance Document pollutant removal efficiency value for Molybdenum.

Molybdenum was detected in the facility influent and effluent, in the uncontrolled source and in the domestic hauled waste source. It was also detected above the EPA ML in 6 of the 10 SIUs sampled.

Establishing a local limit for Molybdenum is not warranted at this time. The primary Molybdenum loading appears to be from uncontrolled sources (contributing to 30.6% MAHL). Very low Molybdenum loading was identified in the domestic hauled waste source (contributing to 0.12% MAHL), and in the SIU sources (where the average Molybdenum loading was 1.7% MAHL), both indicators that the WWTP is adequately protected. Considering these factors, there is no technically based justification for a Molybdenum local limit at this time. **No local limit is proposed.**

8.3.10 Nickel: Proposed Limit: None Proposed

The limiting criterion for Nickel MAHL was identified to be the Biosolids criterion. Specifically, a **Nickel MAHL of 23.16 lbs./day** was calculated, resulting in a **Nickel MAIL of 19.16 lbs./day (and the corresponding Nickel uniform concentration local limit of 3.69 mg/L)**, based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Nickel loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Nickel loading was 1.85 lbs./day (corresponding to 8.0% MAHL)
- facility influent maximum Nickel loading was 3.95 lbs./day (corresponding to 17.1% MAHL)
- the average uncontrolled source Nickel loading was 1.683 lbs./day (corresponding to 7.9% MAHL)
- the average hauled waste Nickel loading was 0.0014 lb./day (corresponding to 0.006% MAHL)
- the average SIU Nickel loading was 0.086 lb./day (corresponding to 0.37% MAHL)
- the maximum SIU Nickel loading was 0.359 lb./day (corresponding to 1.6% MAHL)

A summary of the Nickel concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Nickel concentration was 0.0042 mg/L
- the average effluent Nickel concentration was 0.0032 mg/L

- the average uncontrolled source Nickel concentration was 0.0036 mg/L
- the average hauled waste Nickel concentration was 0.317 mg/L
- the average SIU Nickel concentration was 0.0165 mg/L
- the maximum SIU Nickel concentration was 0.0691 mg/L

Establishing a local limit for Nickel is not warranted at this time considering the low facility influent Nickel loading, the low Nickel loading from uncontrolled sources, the very low Nickel loading from domestic hauled waste sources and the very low Nickel loading from the SIU sources. All are indicators that the WWTP is adequately protected. Considering these factors, there is no technically based justification for a Nickel local limit at this time. **No local limit is proposed.**

8.3.11 Nitrogen, Ammonia: Proposed Limit: None Proposed

The only limiting criterion for the Nitrogen, Ammonia MAHL was identified to be the anaerobic digestion process inhibition criterion, where the calculated **Nitrogen, Ammonia MAHL is 748,098 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste source contributions, correspond to a **Nitrogen, Ammonia MAIL of 656,409 lbs./day and a Nitrogen, Ammonia uniform concentration local limit of 128,196 mg/L**.

The Nitrogen, Ammonia loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Nitrogen, Ammonia loading was 8,160 lbs./day (corresponding to 1.1% MAHL)
- facility influent maximum Nitrogen, Ammonia loading was 10,286 lbs./day (corresponding to 1.4% MAHL)
- the average uncontrolled source Nitrogen, Ammonia loading was 7,879 lbs./day (corresponding to 1.05% MAHL)
- the average hauled waste Nitrogen, Ammonia loading was 0.017 lb./day (corresponding to 0.000002% MAHL)
- the average SIU Nitrogen, Ammonia loading was 11.63 lbs./day (corresponding to 0.0016% MAHL)
- the maximum SIU Nitrogen, Ammonia loading was 104 lbs./day (corresponding to 0.013% MAHL)

Establishing a local limit for Nitrogen, Ammonia is not warranted at this time considering the low and very low Nitrogen, Ammonia loadings in facility influent (only 1.1% of the MAHL), as well as from uncontrolled sources, domestic hauled waste sources and SIU sources. All are indicators that the WWTP is adequately protected. Considering that the calculated Nitrogen, Ammonia local limit of 128,196 mg/L is too high to be practical, there is no technically based justification for a Nitrogen, Ammonia local limit at this time. **No local limit is proposed.**

8.3.12 Oil & Grease, Total: Proposed Limit: No Limit Proposed.

Total Oil and Grease is an EPA POC. There is no technically based justification to adopt a local limit for Total Oil and Grease (Non-SGT HEM (animal and vegetable sourced Oil and Grease) plus SGT HEM (mineral- based Oil and Grease)) for the WWTP. The April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*, evaluates the treatability and impacts associated with SGT HEM Oil and Grease (mineral-based, non-polar Oil and Grease) and provides a basis for establishing a 100 mg/L SGT HEM (mineral- based Oil and Grease, or TPH) local limit to protect the WWTP

activated sludge process. However, since the WWTP does not currently utilize the activated sludge process in its treatment of wastewater, this technical basis does not apply. Considering there is no site-specific study for the WWTP or sanitary sewer service area that evaluates the impacts of Total Oil and Grease on WWTP operability, pass-through or interference, there is no technically based justification to establish a local limit for Total Oil and Grease. However, there are several regulatory references that support the establishment of a 100 mg/L local limit for SGT HEM Oil and Grease (TPH), which are discussed further in Section 8.3.18.

A review of the Total Oil and Grease loading to the facility associated with 2021 local limits sampling event data results were evaluated and are summarized below.

- The facility influent average Total Oil and Grease loading was 3,483 lbs./day
- The facility influent maximum Total Oil and Grease loading was 4,026 lbs./day *note, this maximum Oil and Grease loading value was not calculated using the Outlier concentration value of 21.7 mg/L*
- The uncontrolled source Total Oil and Grease Loading was 9,930 lbs./day
- The hauled waste Total Oil and Grease Loading was 0.98 lb./day
- The SIU average Total Oil and Grease Loading was 99.6 lbs./day The SIU maximum Total Oil and Grease loading was 419.1 lbs./day

A review of the Total Oil and Grease loading values summarized above indicates that the uncontrolled source is the predominant source of Total Oil and Grease pollutant loading to the WWTP influent, and both domestic hauled waste and SIU sources contribute very low pollutant loading to the WWTP. Considering there is no justification for establishing a Total Oil and Grease local limit, no local limit is warranted at this time. **No local limit is proposed.**

8.3.13 PFOA: Proposed Limit: None Proposed

The limiting criterion for the PFOA MAHL was identified to be the WWTP's NPDES permit criterion, where the calculated **PFOA MAHL is 1.98 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions correspond to a **PFOA MAIL of 1.78 lbs./day and a PFOA uniform concentration local limit of 0.34 mg/L**. These values were calculated based on the application of HAR Chapter 11-54, Marine Chronic Effluent Criterion for PFOA, as referenced in the WWTP NPDES permit.

The PFOA loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average PFOA loading was 0.00241 lb./day (corresponding to 0.12% MAHL)
- facility influent maximum PFOA loading was 0.00287 lb./day (corresponding to 0.14% MAHL)
- the average uncontrolled source PFOA loading was 0.0019 lb./day (corresponding to 0.10% MAHL)
- the average hauled waste PFOA loading was 0.00000009 lb./day (corresponding to 0.000005% MAHL)
- the average SIU PFOA loading was 0.000017 lb./day (corresponding to 0.00086% MAHL)
- the maximum SIU PFOA loading was 0.000062 lb./day (corresponding to 0.0031% MAHL)

A summary of the PFOA concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent PFOA concentration was 5.55 nanogram per liter (ng/L)

- the average effluent PFOA concentration was 4.33 ng/L
- the average uncontrolled source PFOA concentration was 4.08 ng/L
- the average hauled waste PFOA concentration was 20.0 ng/L
- the average SIU PFOA concentration was 3.3 ng/L
- the maximum SIU PFOA concentration was 12.0 ng/L

Establishing a local limit for PFOA is not warranted at this time considering the low facility influent loading of PFOA (where the influent loading is only 0.12% of the MAHL), as well as the low PFOA loading from uncontrolled sources, domestic hauled waste sources and SIU sources. All are indicators that the WWTP is adequately protected. There is no technically based justification for a PFOA local limit at this time. **No local limit is proposed.**

8.3.14 PFOS: Proposed Limit: None Proposed

The limiting criterion for the PFOS MAHL was identified to be the WWTP NPDES permit effluent criterion, where the calculated **PFOS MAHL is 1.54 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and Type 1 hauled waste contributions corresponds to a **PFOS MAIL of 1.39 lbs./day** and a **PFOS uniform concentration local limit of 0.27 mg/L**. These values were calculated based on the application of HAR Chapter 11-54, Marine Chronic Effluent Criterion for PFOA, as referenced in the WWTP NPDES permit.

The PFOS loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average PFOS loading was 0.0087 lb./day (corresponding to 0.56% MAHL)
- facility influent maximum PFOS loading was 0.0152 lb./day (corresponding to 0.98% MAHL)
- the average uncontrolled source PFOS loading was 0.0017 lb./day (corresponding to 0.11% MAHL)
- the average hauled waste PFOS loading was 0.00000005 lb./day (corresponding to 0.0000032% MAHL)
- the average SIU PFOS loading was 0.000025 lb./day (corresponding to 0.00016% MAHL)
- the maximum SIU PFOS loading was 0.00012 lb./day (corresponding to 0.0078% MAHL)

A summary of the PFOS concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent PFOS concentration was 19.75 ng/L
- the average effluent PFOS concentration was 11.39 ng/L
- the average uncontrolled source PFOS concentration was 3.5 ng/L
- the average hauled waste PFOS concentration was 11.0 ng/L
- the average SIU PFOS concentration was 4.8 ng/L
- the maximum SIU PFOS concentration was 24.0 ng/L

The low facility influent loading of PFOS, the low PFOS loading from uncontrolled sources, and the fact that PFOS was not detected in any SIU source samples, are all indicators that the WWTP is adequately protected. Thus, there is no technically based justification for a PFOS local limit at this time. **No local limit is proposed.**

8.3.15 Selenium: Proposed Limit: None Proposed

The limiting criterion for Selenium MAHL was identified to be the Biosolids criterion. Specifically, a **Selenium MAHL of 1.87 lbs./day** was calculated, resulting in a **Selenium MAIL of 1.26 lbs./day** (and the corresponding **Selenium uniform concentration local limit of 0.24 mg/L**), based on the application of exceptional quality biosolids limitations specified in HAR 11-62 Table IV pursuant to the Wastewater Management Permit HI19WWIP323, Part B, 11. a., issued by the HDOH on May 1, 2019.

The Selenium loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Selenium loading was 0.276 lb./day (corresponding to 14.8% MAHL)
- facility influent maximum Selenium loading was 0.288 lb./day (corresponding to 15.4% MAHL) *note, this maximum Selenium loading value was not calculated using the two Outlier concentration values of 0.0013 mg/L and 0.0014 mg/L*
- the average uncontrolled source Selenium loading was 0.419 lb./day (corresponding to 22.4% MAHL)
- the average hauled waste Selenium loading was 0.00003 lb./day (corresponding to 0.0016% MAHL)
- the average SIU Selenium loading was 0.0036 lb./day (corresponding to 0.19% MAHL)
- the maximum SIU Selenium loading was 0.0067 lb./day (corresponding to 0.36% MAHL)

A summary of the Selenium concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Selenium concentration was 0.00064 mg/L
- the average effluent Selenium concentration was 0.00064 mg/L
- the average uncontrolled source Selenium concentration was 0.0009 mg/L
- the average hauled waste source Selenium concentration was 0.0061 mg/L
- The average SIU Selenium concentration was 0.0007 mg/L
- The maximum SIU Selenium concentration was 0.0013 mg/L

Establishing a local limit for Selenium is not warranted at this time. The low facility influent loading of Selenium, as well as the low Selenium loading from uncontrolled sources, domestic hauled waste sources and SIU sources, are indicators that the WWTP is adequately protected. Thus, there is no technically based justification for a Selenium local limit at this time. **No local limit is proposed.**

8.3.16 Silver: Proposed Limit: None Proposed

The limiting criterion for Silver MAHL was identified to be the WWTP's NPDES permit effluent criterion, where the calculated **Silver MAHL is 114.7 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions corresponds to a **Silver MAIL of 103.0 lbs./day** and a **Silver uniform concentration local limit of 19.8 mg/L**. These values were calculated based on the application of HAR Chapter 11-54, Marine Acute Effluent Criterion for Silver, as referenced in the WWTP NPDES permit.

The Silver loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Silver loading was 0.2092 lb./day (corresponding to 0.18% MAHL)

- facility influent maximum Silver loading was 0.2416 lb./day (corresponding to 0.21% MAHL)
- the average uncontrolled source Silver loading was 0.2229 lb./day (corresponding to 0.19% MAHL)
- the average hauled waste Silver loading was 0.00008 lb./day (corresponding to 0.00007 % MAHL)
- the average SIU Silver loading was 0.0025 lb./day (corresponding to 0.0022% MAHL)
- the maximum SIU Silver loading was 0.0025 lb./day (corresponding to 0.0022% MAHL) *note, this maximum Silver loading value was not calculated using one Outlier concentration values of 0.0014 mg/L*

A summary of the Silver concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Silver concentration was 0.00048 mg/L
- the average effluent Silver concentration was 0.00048 mg/L
- the average uncontrolled source Silver concentration was 0.00048 mg/L
- the average hauled waste Silver concentration was 0.01850 mg/L
- the average and the maximum SIU Silver concentration were both 0.00048 mg/L

Establishing a local limit for Silver is not warranted at this time considering the low number of Silver detections above the EPA ML in facility influent or effluent samples, as well as in the uncontrolled sources and SIU local limit samples. Very low Silver loadings were observed in the facility influent and effluent, and in the uncontrolled sources, domestic hauled waste source and SIU sources. All are indicators that the WWTP is adequately protected. Considering the calculated Silver local limit of 19.8 mg/L is too high to be practical, there is no technically based justification for a Silver local limit at this time. **No local limit is proposed.**

8.3.17 Surfactants: Proposed Limit: None Proposed

There is no current established AHL basis for the calculation of local limit for Surfactants. As discussed in Section 3.3.1 above, the current WWTP NPDES permit includes monthly testing of one of the three chronic species (*Tripneustes gratilla* or *T.gratilla*, *Ceriodaphnia dubia* or *C.dubia* and *Atherinops affinis* or *A.affinis*) such that each species is tested at least once per quarter. Studies conducted by the City's Water Quality Laboratory (WQLAB) in the late 1990's (on Sand Island WWTP and Honouliuli WWTP effluent) and more recently in 2015 (for the Sand Island WWTP), strongly implicated nonpolar organic compounds as contributors to effluent toxicity. Based on the results of the TIE toxicity tests, the most likely contributors to the toxicity were surfactants, nonionic organic compounds, and nonpolar organics. As part of this evaluation, samples were analyzed using a methylene blue active substances (MBAS) assay, consisting of a colorimetric analysis test method that uses methylene blue to detect the presence of anionic Surfactants (such as a detergent or foaming agent). Due to this finding, Surfactants were identified as a POC in the Study.

The Surfactant loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Surfactants loading was 2,521 lbs./day
- facility influent maximum Surfactants loading was 3,036 lbs./day
- the average uncontrolled source Surfactants loading was 2,308 lbs./day
- the average hauled waste Surfactants loading was 0.878 lb./day
- the average SIU Surfactants loading was 92.81 lbs./day

- the maximum SIU Surfactants loading was 308.3 lbs./day

A summary of the Surfactant concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Surfactants concentration was 5.77 mg/L
- the average effluent Surfactants concentration was 5.23 mg/L
- the average uncontrolled source Surfactants concentration was 4.94 mg/L
- the average hauled waste Surfactants concentration was 203.0 mg/L
- the average SIU Surfactants concentration was 18.88 mg/L
- the maximum SIU Surfactants concentration was 59.4 mg/L

There is currently no AHL basis for establishing a local limit for Surfactants. Although the wet weather and dry weather samples were collected for Surfactants from the facility influent, effluent, uncontrolled source, domestic hauled waste and SIU source locations, the development of a site specific AHL for Surfactants was beyond the scope of this local limits sampling evaluation effort. Controlling Surfactants through local limits is not expected to reduce pollutant loadings to the WWTP considering that the source of Surfactants loadings appears to be uncontrolled (domestic hauled waste, residential and commercial customers) and not SIUs (the source that would be controlled by establishing a Surfactants local limit). However, in an effort to control the discharge of Surfactants, the City has required that all SIUs known or suspected of discharging this pollutant to implement the following best management practices (BMPs):

- Use safer alternative detergents as identified by the EPA Safer Detergents Stewardship Initiative program;
- Use automatic dosing equipment to control the amount of surfactant used in the industrial process;
- Perform preventative maintenance checks and services on surfactant dosing equipment, and maintain records for three years;
- Use no more than the manufacturer's recommended amount of surfactant for the industrial process;
- Maintain lists of chemicals used and all Safety Data Sheets (SDS);
- Use proper chemical storage to prevent spills into the sanitary sewer by keeping tight fitting lids on containers to prevent loss to spillage and periodically inspecting chemical storage sites;
- Use secondary containment in areas where surfactants are stored;
- Provide solid separation to prevent solids coated with surfactants from entering the sanitary sewer; and,
- Incorporate BMP instructions into job training.

Considering the above limitations regarding the AHL for Surfactants, there is no technically based justification for a Surfactants local limit at this time. **No local limit is proposed.**

8.3.18 Total Petroleum Hydrocarbons (TPH): Proposed Limits: 100 mg/L local limit and 29,950 lbs./day TPH MAIL

The only limiting criterion for the TPH MAHL was identified to be the influent trickling filter process inhibition criterion, associated with the WWTP's planned implementation of the MBR secondary treatment process facilities in 2026. The calculated **TPH MAHL is 37,405 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic

hailed waste contributions, correspond to a **TPH MAIL of 29,950 lbs./day and a TPH uniform concentration local limit of 5,770 mg/L.**

The TPH loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average TPH loading was 3,487 lbs./day (corresponding to 9.3% MAHL)
- facility influent maximum TPH loading was 4,026 lbs./day (corresponding to 10.7% MAHL)
- the average uncontrolled source TPH loading was 3,714 lbs./day (corresponding to 9.9% MAHL)
- the average hauled waste TPH loading was 0.454 lb./day (corresponding to 0.0012% MAHL)
- both the average and maximum SIU TPH loadings were 41.29 lbs./day (corresponding to 0.11% MAHL)

A summary of the TPH concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent TPH concentration was 7.95 mg/L
- the average effluent TPH concentration was 7.95 mg/L
- the average uncontrolled source TPH concentration was 7.95 mg/L
- the average hauled waste TPH concentration was 105.0 mg/L
- both the average and maximum SIU TPH concentrations were 7.95 mg/L

A review of the TPH local limit sampling data indicates that TPH was detected above the EPA ML only in the domestic hauled waste sample and was not detected above the EPA ML in the facility influent and effluent, uncontrolled source or SIU samples.

The April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*, which evaluated the treatability and impacts associated with SGT HEM Oil and Grease (mineral-based, non-polar Oil and Grease, which includes TPH) provides the basis for establishing a 100 mg/L TPH (SGT HEM, mineral-based Oil and Grease) local limit.

The pretreatment regulations 40 CFR 403.5(b)(6) that prohibit the discharge of “petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.” The pretreatment regulations 40 CFR Part 403.5(b)(3) prohibit solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference. Additionally, ROH Chapter 14, Article 5, Section 14-1.9(g)(19) establishes that “*No person shall discharge or cause to be discharged any wastewater with petroleum hydrocarbon concentration greater than 100 mg/L or having detrimental characteristics so as to cause obstructions, upset, interference or pass-through in the POTW, or result in adverse impact on the public health or the environment.*” The above regulatory references support the establishment of a 100 mg/L TPH uniform concentration local limit.

The TPH concentrations of all 10 SIUs were observed at levels below both the EPA ML and the 100 mg/L TPH limitation established in ROH Chapter 14, Article 5, Section 14-1.9(g)(19), and the 100 mg/L limitation referenced in the April 1975 EPA document titled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*. Therefore, and considering that a 100 mg/L TPH local limit is an achievable limit for all currently permitted SIUs to comply with utilizing generally available wastewater treatment processes, a 100 mg/L local limit for TPH, and a 29,950 lbs./day TPH MAIL is proposed. Establishing both a uniform local limit for TPH and a MAIL for TPH will provide the City with the flexibility to include either the TPH uniform concentration local limit or a TPH loading-based limitation in the industrial waste

discharge permits issued to SIUs. **A 100 mg/L TPH local limit and a 29,950 lbs./day TPH MAIL are proposed.**

8.3.19 Total Suspended Solids (TSS): 2019 Proposed Limit: 488 mg/L. Current Proposed Limit: None.

The most stringent TSS MAHL criterion was the WWTP NPDES permit effluent criterion. The calculation of AHLs for conventional pollutant TSS was performed based on the WWTP design capacity and all applicable discharge criteria. Accordingly, the most and second most stringent AHL criteria are the WWTP NPDES permit effluent criterion and the WWTP design criterion, respectively.

EPA recommends that local limits are needed when average monthly influent loading reaches 80% of average POTW design capacity for TSS during any one month in the 12-month period preceding the analysis. For the WWTP, the average monthly influent TSS loading value for the 12-month period of January - December 2020 was 46.4%, well below the 80% of the WWTP average design capacity for TSS.

Comparing WWTP monitoring results to all applicable NPDES permit limits is another key step in local limits evaluation for TSS. A review of the WWTP effluent TSS data for the period of January 2016 - December 2020 identified exceedances of the interim average weekly and average monthly concentration and loading limits specified in the WWTP NPDES permit, as established under CD Civil No. 94-00765 DAE-KSC effective 12/17/2010. The exceedances were not attributed to excessive influent loading at the headworks nor were they attributed to SIU discharges. No exceedances occurred subsequent to August 2017.

The most stringent TSS MAHL criterion was the WWTP NPDES permit effluent criterion. The evaluation of the TSS loadings, as determined by WWTP flows and sampling data collected over the period of January through June 2021 (associated with both the wet weather and dry weather local limits sampling and routine daily plant sampling) indicates that the loadings to the WWTP were 64.6% of the WWTP NPDES permit effluent criteria AHL. The calculated **TSS MAHL loading of 99,655 lbs./day**, along with the application of a 10% safety factor, a 3.80% GA, and allocations set aside for uncontrolled sources and domestic hauled waste contributions corresponds to a **TSS MAIL of 41,155 lbs./day** and a **TSS uniform concentration local limit of 7,929 mg/L** (per Table 7-7, *WWTP TSS Loadings and Effluent Criteria Local Limits Evaluation*).

The TSS loading to the facility associated with 2021 local limits Study is summarized below:

- facility average influent TSS loading (associated with the January through June 2021 daily WWTP influent sampling and daily facility flows) was 64,400 lbs./day (corresponding to 64.6% MAHL)
- facility maximum influent TSS loading (associated with the January through June 2021 daily WWTP influent sampling and daily facility flows) was 68,564 lbs./day (corresponding to 68.8% MAHL)
- the average uncontrolled source TSS loading was 44,744 lbs./day (corresponding to 44.9% MAHL)
- the maximum uncontrolled source TSS loading was 69,146 lbs./day (corresponding to 69.4% MAHL)
- both the average hauled waste TSS loading and maximum hauled waste TSS loading was 3.701 lbs./day (corresponding to 0.0037% MAHL)

A summary of the TSS concentrations associated with 2021 local limits evaluation are as follows:

- the average influent TSS concentration was 143.8 mg/L
- the average effluent TSS concentration was 34.53 mg/L

- the average uncontrolled source TSS concentration was 95.77 mg/L
- the average hauled waste TSS concentration was 856 mg/L
- the average SIU TSS concentration was 68.08 mg/L
- the maximum SIU TSS concentration was 214 mg/L

A review of the WWTP design criteria calculations presented Table 7-5, *WWTP Design Criteria-based Local Limits Evaluation*, as well as the TSS concentrations and loadings from the facility influent, uncontrolled source, domestic hauled waste source and the SIU source indicate the following:

- The average monthly influent TSS loading is 48.4% of the WWTP design treatment capacity, and thus meets the 80% WWTP design pollutant treatment capacity threshold
- A review of the TSS source loading to the facility indicates that the uncontrolled source is the predominant source of TSS, contributing between 44.9% MAHL (average basis) and 69.4% MAHL (maximum basis)
- Hauled waste source TSS contributions are low, contributing only 0.0037% of the MAHL
- SIU source TSS contributions range between 0.35% MAHL (average basis) and 1.11% MAHL (maximum basis)
- SIU source TSS concentrations ranged between a 68.08 mg/L average to a 214 mg/L maximum, and are significantly lower than the calculated local limit of 7,929 mg/L.

In summary, the TSS loading to the WWTP is primarily from the uncontrolled source.

The calculated TSS local limit of 7,629 mg/L differs from the previous 2019 local limit recommendation of 448 mg/L for TSS. This is due to the fact that the 2021 local limit calculation used average TSS and average daily WWTP flows, whereas the 2019 local limit calculation used maximum TSS and WWTP design flows.

A review of the impact associated with applying the 2019 proposed TSS local limit, versus the current calculated TSS local limit, to the current SIUs was then performed. The maximum TSS concentration result detected in SIU local limit samples in 2021 was 214 mg/L which is less than both the 2019 proposed 488 mg/L TSS local limit and the current calculated 7,929 mg/L TSS local limit. A review of the historic SIU data indicates that four SIUs have discharged TSS at concentrations that exceed the 2019 proposed 488 mg/L TSS local limit, but all results were well below the current calculated local limit of 7,929 mg/L. Considering that the 2019 proposed 7,929 mg/L TSS local limit was calculated using current average flows from the WWTP, uncontrolled source, type 1 hauled waste, SIUs and TSS sampling data that included the use of both, wet weather and dry weather sample data, it is more representative of current conditions than the 2019 proposed TSS local limit. However, considering that the maximum TSS concentrations result detected in SIU local limit samples in 2021 was only 214 mg/L, and the historic SIU maximum TSS concentration is well below the current calculated TSS uniform concentration local limit of 7,929 mg/L, establishing a local limit for TSS is not expected to reduce TSS loadings to the WWTP from SIU sources. **Therefore, since there is no practical need to control TSS in SIU discharges and no TSS local limit is proposed at this time.**

8.3.20 Zinc: 2019 Proposed Limit: 24.09 lbs./day. Current Proposed Limit: 12.73 lbs./day.

The limiting criterion for Zinc MAHL was identified to be Biosolids criterion. Specifically, a **Zinc MAHL of 55.28 lbs./day**. This loading, along with the application of a 10% safety factor, and allocations set aside for uncontrolled sources and domestic hauled waste contributions correspond to a **Zinc MAIL of 12.73**

lbs./day (and the corresponding **Zinc uniform concentration local limit of 2.45 mg/L**), based on the application of *EPA 2012 Reuse Guidelines, Table 3-5* (reuse irrigation limitations).

The Zinc loading to the facility associated with 2021 local limits sampling event data results evaluated are as follows:

- facility influent average Zinc loading was 36.6 lbs./day (corresponding to 66.2% MAHL)
- facility influent maximum Zinc loading was 54.4 lbs./day (corresponding to 98.4% MAHL) *note, this maximum Zinc loading value was not calculated using the Outlier concentration value of 0.154 mg/L.*
- the average uncontrolled source Zinc loading was 37.0 lbs./day (corresponding to 66.9% MAHL)
- the average hauled waste Zinc loading was 0.05 lb./day (corresponding to 0.091% MAHL)
- the average SIU Zinc loading was 0.975 lb./day (corresponding to 1.76% MAHL)
- the maximum SIU Zinc loading was 1.697 lbs./day (corresponding to 3.07% MAHL)

A summary of the Zinc concentrations associated with 2021 local limits sampling event data are as follows:

- the average influent Zinc concentration was 0.0834 mg/L
- the average effluent Zinc concentration was 0.0346 mg/L
- the average uncontrolled source Zinc concentration was 0.0791 mg/L
- the average hauled waste Zinc concentration was 11.56 mg/L
- the average SIU Zinc concentration was 0.188 mg/L
- the maximum SIU Zinc concentration was 0.327 mg/L

In summary, the Zinc loading to the WWTP is primarily from the uncontrolled source which contributes between 66.9% of the MAHL (average basis) and 69.4% of the MAHL (maximum basis). The domestic hauled waste Zinc loading contributions were very low, contributing only 0.091% of MAHL, and the SIU source Zinc loading contributions are also low, ranging between 1.76% MAHL (average basis) and 3.07% MAHL (maximum basis). All local limit sampling SIU Zinc loadings and concentrations were below the calculated MAIL of 12.73 lbs./day and calculated Zinc uniform concentration local limit of 2.46 mg/L.

The calculated Zinc MAIL local limit of 12.73 lbs./day in the 2021 report differs from the 2019 calculated Zinc MAIL of 24.09 lbs./day because the 2021 local limits calculation result is based on sampling data obtained over the more recent (February 2015 – February 2021) period. In addition, 2020 average sludge production flow values, which are more representative of site conditions, were used; whereas in the 2019 local limit calculation, monthly flows corresponding to the months during which sludge samples were collected were used.

A review of the impact associated with applying the 2019 proposed Zinc local limit versus the current calculated Zinc local limit to current SIUs was then performed. The maximum Zinc concentration and loading result detected in SIU local limit samples in 2021 was 0.327 mg/L and 1.697 lbs./day, respectively. The calculated maximum SIU Zinc loading of 1.697 lbs./day is less than both the 2019 proposed 24.09 lbs./day Zinc MAIL local limit and the current calculated 12.73 lbs./day Zinc MAIL local limit and the maximum SIU Zinc concentration of 0.327 mg/L is less than the current calculated Zinc uniform concentration local limit of 2.45 mg/L. A review of the historic SIU data indicates one SIU subject to categorical pretreatment standards for Zinc (daily maximum of 6.95 mg/L and monthly average limit of 4.46 mg/L) has discharged Zinc at levels that would exceed the current calculated uniform Zinc local limit of 2.45 mg/L. Also, the total Zinc loading from all current SIUs combined is 0.09 lbs./day, well below the current calculated MAIL of 12.73 lbs./day Zinc. Considering that the current MAIL of 12.73 lbs./day and

the corresponding uniform local limit of 2.45 mg/L were calculated using current average flows from the WWTP, uncontrolled source, type 1 hauled waste and SIUs, and current Zinc sampling data, the current calculated Zinc MAIL local limit and corresponding uniform concentration local limit are appropriate. Considering the current calculated WWTP MAIL value, there is a technical basis to change the 2019 proposed Zinc local limit, from 24.09 lbs./day to 12.73 lbs./day, to provide flexibility and minimize impacts to current SIUs and to provide adequate protection of the current biosolids treatment processes and uses. **A reduction of the proposed Zinc local limit (from 24.09 lbs./day to 12.73 lbs./day) is proposed.**

9.0 SUMMARY OF LOCAL LIMITS EVALUATION

Pursuant to the EPA guidelines, the current local limits evaluation warrants the establishment of an updated proposed local limit for BOD₅, and a newly-proposed local limit for TPH and Zinc, as discussed below.

Specifically, an increase to the 2019 proposed BOD₅ uniform local limit (from 1,449 mg/L to 5,696 mg/L) and the establishment of a MAIL-based BOD₅ local limit of 29,566 lbs./day is proposed, given current average flows from the WWTP, uncontrolled source, type 1 hauled waste, SIUs, and recent BOD₅ sampling results. The current calculated BOD₅ uniform concentration local limit (and associated MAIL) differs from the 2019 proposed 1,449 mg/L BOD₅ uniform local limit (and associated MAIL) due to the use of WWTP average daily flows and average WWTP influent BOD₅ concentrations and are more representative of facility conditions. By establishing both, a uniform BOD₅ local limit and a BOD₅ MAIL, the City has the flexibility to either apply the uniform local limit in SIU Permits or calculate and establish an allocation-based limit for BOD₅ in SIU IWD Permits. Specifically, the 5,696 mg/L uniform local limit for BOD₅ is beneficial for use to control nonpermitted (non-SIU) facilities discharging excessive BOD₅ to the WWTP, and may be included in new SIU IWD Permits until there is sufficient flow and concentration information available for the SIU to develop an allocation-based limit for the SIU. An allocation-based limit for BOD₅ is useful for IWD-permitted SIUs if historical data on flow is available, BOD₅ discharge concentration is above the 5,696 mg/L BOD₅ local limit, and all SIUs BOD₅ loading combined are less than the adopted BOD₅ MAIL-based limit (as is the case for the Sand Island IWD-permitted SIUs).

Specifically, a 100 mg/L uniform concentration local limit for TPH, and a corresponding MAIL of 29,950 lbs./day MAIL for TPH are proposed, considering current WWTP influent process inhibition criteria and current SIU TPH discharge concerns. By establishing both, a uniform TPH local limit and a TPH MAIL, the City has the flexibility to either apply the uniform local limit or the calculated allocation-based limit for TPH in SIU IWD Permits. Specifically, the 100 mg/L uniform local limit may be included in new SIU IWD Permits until there is sufficient flow and concentration information available for the SIU to develop an allocation-based TPH limit for the SIU, if the SIU's current TPH discharge concentration is above the 100 mg/L TPH local limit, and all SIUs TPH loading combined are less than the adopted TPH MAIL limit (as is the case for the Sand Island IWD-permitted SIUs). The establishment of a TPH local limit of 100 mg/L may also be beneficial to control TPH discharges from nonpermitted (non-SIU) facilities that do not qualify as SIUs, to promote the facilities' implementation of appropriate pollutant control measures required to reduce TPH discharges to the WWTP.

Specifically, a reduction of the 2019 proposed Zinc MAIL-based local limit (from 24.09 lbs./day to 12.73 lbs./day) is proposed, given current average flows from the WWTP, uncontrolled source, type 1 hauled waste, SIUs, and recent BOD₅ sampling results. The current calculated Zinc MAIL-based local limit differs from the 2019 proposed 24.09 lbs./day Zinc limit due to the use of more recent (February 2015 – February

2021) period sludge concentration data and the use of 2020 average sludge production flow values, whereas in the 2019 local limit calculation, monthly flows corresponding to the months during which sludge samples were collected were used. By establishing MAIL-based local limit for Zinc, the City has the flexibility to calculate and establish an allocation-based limit for Zinc SIU IWD Permits. An allocation-based limit for Zinc is useful for IWD-permitted SIUs if historical data on flow is available, current Zinc discharge concentration is available and considering that not all SIUs discharge Zinc to the WWTP (as is the case for the Sand Island IWD-permitted SIUs).

9.1 Review of Local Limit Allocation Methods

Once the uniform local limit and MAIL for TPH are adopted, it can be allocated to SIUs uniformly, or allocated based using one of several allocation methods. A summary of the allocation methods discussed in the EPA Local Limits Development Guidance Manual are reviewed in the sections below.

9.1.1 *Uniform Concentration Allocation Method*

The uniform concentration allocation method may apply the adopted uniform concentration limit for a pollutant, or a uniform allocation of the adopted MAIL for the pollutant, equally to all SIUs. For example, the uniform limits method of allocating MAILs for conservative pollutants yields one limit per pollutant that applies to every controlled discharger. It requires that the MAIL for each pollutant be divided by the total flow rate from all controlled dischargers, even those that do not discharge the pollutant. This method can be overly stringent because some IUs that do not discharge the pollutant will be given an allocation of the MAIL that they may not need. Other IUs that do discharge that same pollutant may have to pretreat to comply with the local limit.

9.1.2 *Contributory Flow Allocation Method*

The contributory flow allocation method requires the adoption of the MAIL for the pollutant and then the allocation of pollutant loadings to each permitted SIU based on the SIU's flow contribution. Once each SIU's and contributory flow calculation is estimated, the corresponding calculated concentration-based limit is placed in the SIU's IWD Permit. Specifically, the portion of MAILs above the uncontrolled is divided by the flow rate from all SIUs discharging the pollutant at concentrations above the uncontrolled source. The corresponding calculated concentration-based limit is then applied to only to those SIUs that discharge the pollutant at levels above the uncontrolled source.

9.1.3 *Mass Proportion Allocation Method*

The mass proportion allocation Method requires the adoption of the MAIL for the pollutant and then the allocation of pollutant loadings to each permitted SIU based on the SIU's mass contribution for the pollutant. Once each SIU's contributory flow calculation is estimated, the corresponding calculated limit is placed in the SIU's IWD Permit. Specifically, the portion of the MAIL above the uncontrolled source is first calculated and is then multiplied by the ratio of the SIU's current pollutant loading to the current total loading of a pollutant from uncontrolled sources. The resulting calculated SIU's mass-based loading is then either applied in the SIU's IWD Permit, or it can be converted to a concentration-based limit and that limit applied in the SIU's IWD Permit.

9.1.4 *Selected Local Limit Allocation Method*

Upon evaluation of the BOD₅, TPH and Zinc concentrations currently being discharged by SIUs, as well as the variability of pollutant concentrations between SIUs, the Mass Proportion Allocation method was determined to be the most appropriate method. This method allows for the establishment of a concentration-based limit or a mass-based limit for the SIUs and for including the calculated limit in the IWD permits. The use of a mass proportion allocation limitation is an effective implementation strategy that provides adequate protection to the WWTP, as well as minimizes impact on SIUs that discharge the pollutant at concentrations over the established uniform concentration local limit.

BOD₅ Evaluation: Considering this local limits evaluation identified one SIU that discharges BOD₅ at above the 5,696 mg/L BOD₅ current calculated local limit and the remaining eight SIUs discharge BOD₅ at significantly lower concentrations than the current calculated BOD₅ local limit, the Mass Proportion Allocation method is the most appropriate for the City and for the permitted SIUs.

In order to allocate BOD₅ (either as a higher concentration or as a pollutant loading) to SIUs, the following information is necessary:

- Average daily and maximum daily wastewater volume (in MGD) discharged by the SIU to the WWTP
- Average daily and maximum daily BOD₅ concentrations (in mg/L) historically discharged by all SIUs to the WWTP over the last 2-year period (as applicable).

For newly permitted SIUs, it will be necessary to obtain a minimum of one year of concentration and flow data prior to calculating and applying a mass proportion allocation BOD₅ limit in the SIU's permit. Until a minimum of one year's worth of data is available, the new SIU will be subject to a 5,696 mg/L BOD₅ local limit.

Once the above information is obtained and evaluated, the application of an internal safety factor is typically employed to set aside BOD₅ MAIL for future SIU discharges, as well as for each SIU's BOD₅ pollutant allocation calculation. There is no minimum or maximum requirement specified in the EPA Local Limits Development Guidance Manual regarding the safety factor to be used for this purpose. Nonetheless, the City has elected to set sufficient BOD₅ MAIL aside for potential future SIUs, as well as to ensure current SIUs have a safety factor to increase confidence that the SIU will consistently meet the established allocation, given their implementation of currently available BOD₅ treatment technologies. It is not uncommon for POTWs to set aside 25% of the MAIL for future SIU discharges, and additionally apply a 25% safety factor in the SIU's individual Contributory Flow Allocation calculation or individual Mass Proportion Allocation calculation. As stated in the *EPA Local Limits Development Guidance Manual, Section 6.4.2*, in general, once the MAIL is calculated, the POTW has substantial flexibility in allocating the pollutant load among its SIUs as long as a margin of safety is maintained, the POTW has carefully accounted for all allocations, and public notice of the allocation is properly issued, and allocation is adopted.

TPH Evaluation: Considering this local limits evaluation identified only two SIUs that discharge TPH at concentrations that were significantly lower than the current proposed 100 mg/L TPH local limit, and TPH was not detected in the discharge of the remaining SIUs sampled, the uniform local limit of 100 mg/L for TPH will be applied to all existing and new SIU Permits. If a new SIU or other User (including a Type 1 or Type 3 Waste Hauler) is identified to be discharging TPH at concentrations that are greater than the

current proposed 100 mg/L TPH local limit, then a Mass Proportion Allocation method will be the most appropriate for the City to pursue. In order to allocate TPH (either as a higher concentration or as a pollutant loading) to SIUs, the following information is necessary:

- Average daily and maximum daily wastewater volume (in MGD) discharged by the SIU to the WWTP
- Average daily and maximum daily TPH concentrations (in mg/L) historically discharged by all SIUs to the WWTP over the last 2-year period (as applicable).

For newly permitted SIUs, it will be necessary to obtain a minimum of one year of concentration and flow data prior to calculating and applying a mass proportion allocation TPH limit in the SIU's permit. Until a minimum of one year's worth of data is available, the new SIU will be subject to a 100 mg/L TPH local limit.

Once the above information is obtained and evaluated the application of an internal safety factor is typically employed to set aside TPH MAIL for future SIU discharges, as well as for each SIU's TPH pollutant allocation calculation. There is no minimum or maximum requirement specified in the EPA Local Limits Development Guidance Manual regarding the safety factor to be used for this purpose. Nonetheless, the City has elected to set sufficient TPH MAIL aside for potential future SIUs, as well as to ensure current SIUs have a safety factor to increase confidence that the SIU will consistently meet the established allocation, given their implementation of currently available TPH treatment technologies. It is not uncommon for POTWs to set aside 25% of the MAIL for future SIU discharges, and additionally apply a 25% safety factor in the SIU's individual Contributory Flow Allocation calculation or individual Mass Proportion Allocation calculation. As stated in the *EPA Local Limits Development Guidance Manual, Section 6.4.2*, in general, once the MAIL is calculated, the POTW has substantial flexibility in allocating the pollutant load among its SIUs as long as a margin of safety is maintained, the POTW has carefully accounted for all allocations, and public notice of the allocation is properly issued, and allocation is adopted.

Zinc Evaluation: Considering this local limits evaluation identified seven SIUs discharges Zinc well below the current proposed 12.73 lbs./day MAIL-based local limit (which includes one CIU that is currently required to limit Zinc discharges to 6.95 mg/L (maximum daily basis) pursuant to 40 CFR Part 437 Subpart B included in the User's IWD permit, and two SIUs did not discharge Zinc to the WWTP, the Mass Proportion Allocation method is the most appropriate for the City and for the permitted SIUs.

In order to allocate BOD₅ (either as a higher concentration or as a pollutant loading) to SIUs, the following information is necessary:

- Average daily and maximum daily wastewater volume (in MGD) discharged by the SIU to the WWTP
- Average daily and maximum daily Zinc concentrations (in mg/L) historically discharged by all SIUs to the WWTP over the last 2-year period (as applicable).
- The applicable CIU pretreatment standard and/or limitation that applies to the discharge

For the existing SIU with a current categorical standard for Zinc that applies to the discharge, the Zinc local limit to be applied to the User will be equal to the 6.95 mg/L (maximum daily) Categorical pretreatment limit currently applied to the User, per 40 CFR Part 437 Subpart B and both Zinc limits referenced in the SIU's IWD permit.

For newly permitted SIUs, it will be necessary to obtain a minimum of one year of concentration and flow data prior to calculating and applying a mass proportion allocation Zinc limit in the SIU's permit. Until a minimum of one year's worth of data is available, the new SIU will be subject to an interim allocation of the 12.73 lbs./day MAIL-based local limit based on the User's estimated flow rate, per their IWD permit application submission. Once the user's flow is defined, then the pollutant allocation can be recalculated that the SIU's IWD permit revised to reflect their final pollutant loading allocation.

Once the above information is obtained and evaluated the application of an internal safety factor is typically employed to set aside Zinc MAIL for future SIU discharges, as well as for each SIU's Zinc pollutant allocation calculation. There is no minimum or maximum requirement specified in the EPA Local Limits Development Guidance Manual regarding the safety factor to be used for this purpose. Nonetheless, the City has elected to set sufficient Zinc MAIL aside for potential future SIUs, as well as to ensure current SIUs have a safety factor to increase confidence that the SIU will consistently meet the established allocation, given their implementation of currently available Zinc treatment technologies. It is not uncommon for POTWs to set aside 25% of the MAIL for future SIU discharges, and additionally apply a 25% safety factor in the SIU's individual Contributory Flow Allocation calculation or individual Mass Proportion Allocation calculation. As stated in the *EPA Local Limits Development Guidance Manual, Section 6.4.2*, in general, once the MAIL is calculated, the POTW has substantial flexibility in allocating the pollutant load among its SIUs as long as a margin of safety is maintained, the POTW has carefully accounted for all allocations, and public notice of the allocation is properly issued, and allocation is adopted.

10.0 LOCAL LIMITS IMPLEMENTATION

The City has received preliminary approval by the DOH and EPA to implement the 2019 proposed local limits for BOD₅, TSS and Zinc. However, considering the results of the more recent 2021 local limits evaluation, as presented in the report herein, the City now intends to seek approval from the DOH and EPA to implement the 2021 local limits proposed for BOD₅, TPH and Zinc (only) and to not move forward with previous plans to establish a new local limit for TSS, given 2022 local limit calculations and findings.

Once preliminary approval from DOH and EPA on each proposed local limit and allocation method has been received, the City will adopt the local limit through its administrative rulemaking process which includes public participation through public hearing. Upon adoption and after receiving final approval from DOH and EPA, the City will reissue all SIU IWD Permits in the WWTP service area within six (6) months, thereby implementing the new local limits.

11.0 REFERENCES

- (1) National Pollutant Discharge Elimination System (NPDES) Permit # HI0020117, issued by the HDOH to the City and County of Honolulu for the SI WWTP, renewal effective May 1, 2021.
- (2) United States Environmental Protection Agency (EPA) *Local Limits Development Guidance Document* (833-R-04-002A), 2004.
- (3) EPA, *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works*, Document (110 /1-75 /066), April 1975.

- (4) Pretreatment Regulations, pursuant to Title 40, Protection of the Environment, Chapter I, EPA, Subchapter N, Effluent Guidelines and Standards, Parts 403-471 of the Code of Federal Regulations, established January 28, 1981, and as amended.
- (5) Revised Ordinances of Honolulu (ROH), established 1990, and as amended, Chapter 14, Public Works Infrastructure Requirements Including Fees and Services, Article 5, Industrial Wastewaters.
- (6) Title 40 - Protection of Environment Chapter I - EPA, Subchapter D - Water Programs Part 125 - Criteria and Standards for the National Pollutant Discharge Elimination System, Subchapter 125.65 - Urban area pretreatment program).
- (7) Hawaii Administrative Rules (HAR), Title 11 - DOH, Section 11-54- Water Quality Standards, Subsection 11-54-06 - Uses and Specific Criteria Applicable to Marine Waters, current version November 15, 2014.
- (8) Consent Decree, Civil No. 94-00765 DAE-KSC, effective 12/17/2010, and as amended.
- (9) Title 40 - Protection of the Environment, Chapter I - EPA, Subchapter N - Effluent Guidelines and Standards, CFR Part 437 - Centralized Waste Treatment Point Source Category, Subpart B - Oily Waste, December 22, 2000, and as amended on December 22, 2003.
- (10) Title 40 - Protection of the Environment, Chapter I - EPA, Subchapter N - Effluent Guidelines and Standards, CFR 40 Part 503 - Standards for the Use or Disposal of Sewage Sludge, February 19, 1993, and as amended.
- (11) Title 40 - Protection of the Environment, Chapter I - EPA, Subchapter N - Effluent Guidelines and Standards, CFR 40 Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants, as amended by the Clean Water Act of 1977.
- (12) EPA Local Limits Development Guidance Appendices, EPA Document 833-R-04-002B, July 2004.
- (13) NPDES Permit NO. HI 0020117, Fact Sheet - Renewal of the NPDES Permit And Zone of Mixing (ZOM) To Discharge To Mamala Bay, Pacific Ocean, Waters of The United States, Issued by HDOH to the City and County of Honolulu for the Sand Island WWTP, March 29, 2021.
- (14) HAR, Title 11 - DOH, Section 11-62 - Wastewater Systems, Subchapter 1 - Prohibitions and General Requirements, March 21, 2016.
- (15) Wastewater Management Permit No. HI19WWIP323, issued by the HDOH to City and County of Honolulu, Dept. of Environmental Services (Sand Island Wastewater Treatment Plant) and Synagro – WWT, Inc., In-Vessel Bioconversion Facility, (at the Sand Island WWTP) effective May 1, 2019.
- (16) Title 40 - Protection of the Environment, Chapter I - EPA, Subchapter I – Solid Wastes, CFR 40 Part 126 - Identification And Listing of Hazardous Waste, Appendix II - Method 1311 Toxicity Characteristic Leaching Procedure (TCLP), July 1, 2003.
- (17) Wastewater Flow and Load Projections Report, prepared by Carollo Engineers, June 2021.

Appendix A

Appendix A.1, Uncontrollable Sample Results Summary from Wet Season (February 19-25, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
UNC	Ammonia-N	1.0	3.180	1.590	7	7	30,114	33,800
UNC	Arsenic	0.2	0.636	0.318	7	7	0.513	0.593
UNC	BOD	1,000	3,180	1,590	7	7	237,429	317,000
UNC	Cadmium	0.2	0.636	0.318	7	0	0.318	0.318
UNC	Chlordane	2.2	6.996	3.498	2	0	3.498	3.498
UNC	Chromium	0.5	1.59	0.795	7	7	2.771	3.424
UNC	Copper	0.7	2.226	1.113	7	7	65.12	84.04
UNC	Cyanide, Total	6.0	19.08	9.540	7	0	9.540	9.540
UNC	Dieldrin	0.04	0.1272	0.0636	2	0	0.020	0.020
UNC	Lead	0.10	1.272	0.636	7	7	0.835	0.948
UNC	Mercury	0.034	0.10812	0.05406	7	3	0.080	0.180
UNC	Molybdenum	0.3	0.954	0.477	7	7	0.700	0.878
UNC	Nickel	0.7	2.226	1.113	7	7	2.972	4.005
UNC	Oil and Grease	5,000	15,900	7,950	7	7	41,351	63,200
UNC	PFOA	0.0004	0.001272	0.000636	2	2	0.0013	0.0014
UNC	PFOS	0.00054	0.001717	0.0008586	2	0	0.00083	0.00083
UNC	Selenium	0.4	1.272	0.636	7	7	2.019	2.462
UNC	Silver	0.3	0.954	0.477	7	0	0.454	0.477
UNC	Surfactants	10.0	31.8	15.9	7	7	9,989	11,600
UNC	TPH	5,000	15,900	7,950	7	3	11,507	23,500
UNC	TSS	1,000	3,180	1,590	7	7	285,286	315,000
UNC	Zinc	5.5	17.49	8.745	7	7	134.5	226.7

Key:

UNC = uncontrolled source

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

* The stated maximum EPA Method Limit (ML) for the corresponding maximum MDL is calculated by multiplying the MDL x 3.18.

** The stated corresponding EPA ML used for data averaging is calculated by multiplying the EPA ML by 1/2. This value is then used for data averaging of all non-detected values recorded below the MDL.

Appendix A.2, Uncontrollable Sample Results Summary from Dry Season (June 12-18, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE the EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
UNC	Ammonia-N	1.0	3.180	1.590	7	7	15,029	18,300
UNC	Arsenic*	0.2	0.636	0.318	7	7	1.086	1.400
UNC	BOD*	1,000	3,180	1,590	7	7	115,357	157,000
UNC	Cadmium	0.2	0.636	0.318	7	0	0.118	0.263
UNC	Chlordane	2.0	6.360	3.180	2	0	2.465	3.180
UNC	Chromium	0.5	1.59	0.795	7	7	3.114	5.100
UNC	Copper	0.7	2.226	1.110	7	7	12.91	32.60
UNC	Cyanide, Total	6.0	19.08	9.540	7	0	9.540	9.540
UNC	Dieldrin	0.02	0.0636	0.0318	2	0	0.029	0.032
UNC	Lead*	0.4	1.272	0.636	7	7	0.636	0.636
UNC	Mercury*	0.034	0.10812	0.05406	7	1	0.042	0.078
UNC	Molybdenum*	0.3	0.954	0.477	7	6	1.897	3.900
UNC	Nickel	0.7	2.226	1.110	7	4	2.234	4.200
UNC	Oil and Grease	5,000	15,900	7,950	7	6	18,793	28,100
UNC	PFOA	0.0004	0.001272	0.000636	2	2	0.0039	0.0042
UNC	PFOS	0.00050	0.0017172	0.0008586	2	2	0.0047	0.005
UNC	Selenium	0.4	1.300	0.636	7	1	0.731	1.300
UNC	Silver*	0.3	0.954	0.477	7	0	0.477	0.477
UNC	Surfactants	10	31.8	15.9	7	7	3,979	4,340
UNC	TPH	5,000	15,900	7,950	7	0	7,950	7,950
UNC	TSS*	1,000	3,180	1,590	7	7	113,571	148,000
UNC	Zinc	5.5	17.50	8.7	7	6	37.71	66.00

Key:

NA = Not applicable because regulatory detection limit is not specified.

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

DL = Detection limit. The Regulatory Detection Limit that applies for all pollutants is the EPA Method Limit (ML) which is 3.18 * MDL.

ND = Not detected.

* Arsenic, BOD₅, Mercury, Molybdenum, Silver and TSS each had one (1) Maximum Result Outlier Value that was excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

Appendix B

Appendix B.1, Influent Sample Results Summary from Wet Season (February 18-27, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE the EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
INF	Ammonia-N	1.0	3.180	1.590	10	10	16,210	18,800
INF	Arsenic	0.2	0.636	0.318	10	10	1.5	1.9
INF	BOD	1,000	3,180	1,590	10	10	155,800	216,000
INF	Cadmium	0.2	0.636	0.318	10	0	0.318	0.318
INF	Chlordane	2.2	6.996	3.498	3	0	3.29	3.50
INF	Chromium*	0.5	1.59	0.795	10	9	482	7.3
INF	Copper	0.2	0.636	0.318	10	9	27.3	34.8
INF	Cyanide, Total	6.0	19.08	9.540	10	0	9.540	9.540
INF	Dieldrin	0.04	0.1272	0.0636	3	0	0.2332	0.3180
INF	Lead	0.4	1.272	0.636	10	8	2.48	5.0
INF	Mercury*	0.034	0.10812	0.05406	10	6	0.199	0.48
INF	Molybdenum	0.3	0.954	0.477	10	8	3.53	5.0
INF	Nickel	0.7	2.226	1.113	10	8	5.1	8.9
INF	Oil & Grease	5,000	15,900	7,950	10	0	7,950	7,950
INF	PFOA	0.0004	0.001272	0.000636	2	2	0.0047	0.0055
INF	PFOS	0.00048	0.001526	0.0007632	2	2	0.025	0.034
INF	Selenium	0.4	1.272	0.636	10	0	0.636	0.636
INF	Silver	0.3	0.954	0.477	10	0	0.477	0.477
INF	Surfactants	10	31.8	15.9	10	10	5,160	6,400
INF	TPH	5,000	15,900	7,950	10	0	7,950	7,950
INF	TSS	1,000	3,180	1,590	10	10	166,100	214,000
INF	Zinc	5.5	17.49	8.745	10	9	78.4	107.4

Key:

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

DL = Detection limit. The Regulatory Detection Limit that applies for all pollutants in this POS is the EPA Method Limit (ML) which is 3.18 * MDL.

ND = Not detected.

* The Influent Maximum Result presented for Chromium & Mercury are Outlier Values, and were excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

* Chromium, Copper, Oil and Grease, and Zinc each had one (1) Maximum Result Outlier Value that was excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

** Molybdenum and Selenium each had two (2) Maximum Result Outlier Values that were excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

Appendix B.2, Influent Sample Results Summary from Dry Season (June 10-19, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE the EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
INF	Ammonia-N	1.0	3.180	1.590	10	10	21,120	24,100
INF	Arsenic	0.2	0.636	0.318	10	10	1.4	1.5
INF	BOD*	1,000	3,180	1,590	10	10	172,889	193,000
INF	Cadmium	0.2	0.636	0.318	10	0	0.318	0.318
INF	Chlordane	2.2	6.996	3.498	2	0	3.5	3.5
INF	Chromium	0.5	1.59	0.795	10	10	3.61	6.50
INF	Copper	0.7	2.226	1.113	10	10	28.7	35.1
INF	Cyanide, Total*	6.0	19.08	9.540	10	0	9.5	10.0
INF	Dieldrin	0.04	0.1272	0.0636	2	0	0.0636	0.0636
INF	Lead	0.4	1.272	0.636	10	4	0.98	1.8
INF	Mercury	0.034	0.10812	0.05406	10	1	0.0607	0.12
INF	Molybdenum	0.3	0.954	0.477	10	10	3.46	4.3
INF	Nickel	0.7	2.226	1.113	10	10	3.23	3.9
INF	Oil & Grease	5,000	15,900	7,950	10	0	7,950	7,950
INF	PFOA	0.00047	0.001495	0.000747	2	2	0.0064	0.0068
INF	PFOS	0.00063	0.0020034	0.000100175	2	2	0.0145	0.016
INF	Selenium	0.4	1.272	0.636	10	0	0.636	0.636
INF	Silver	0.3	0.954	0.477	10	0	0.477	0.477
INF	Surfactants	10	31.8	15.9	10	10	6,382	7,230
INF	TPH	5,000	15,900	7,950	10	0	7,950	7,950
INF	TSS	1,000	3,180	1,590	10	10	159,700	243,000
INF	Zinc	5.5	17.49	8.745	10	10	87.9	98.0

Key:

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

DL = Detection limit. The Regulatory Detection Limit that applies for all pollutants in this POS is the EPA Method Limit (ML) which is 3.18 * MDL.

ND = Not detected.

* BOD and Cyanide, Total each had one (1) Maximum Result Outlier Value that was excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

Appendix C

Appendix C.1, Effluent Sample Results Summary from Wet Season (February 18-27, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE the EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
EFF	Ammonia-N	1.0	3.180	1.59	10	10	17,360	247,000
EFF	Arsenic*	0.2	0.636	0.318	10	10	1.167	1.4
EFF	BOD	1,000	3,180	1,590	10	10	96,790	143,000
EFF	Cadmium	0.2	0.636	0.318	10	0	0.318	0.318
EFF	Chlordane	2.5	7.95	3.975	3	0	5.141	7.95
EFF	Chromium	0.5	1.59	0.795	10	10	2.171	3
EFF	Copper	0.7	2.226	1.113	10	10	12.07	19.4
EFF	Cyanide, Total	6.0	19.08	9.54	10	0	9.54	9.54
EFF	Dieldrin	0.04	0.1272	0.0636	3	0	0.053	0.0636
EFF	Lead	0.4	1.272	0.636	10	0	0.636	0.636
EFF	Mercury*	0.017	0.05406	0.02703	10	0	0.027	0.027
EFF	Molybdenum*	0.3	0.954	0.477	10	9	2.989	3.7
EFF	Nickel	0.7	2.226	1.113	10	5	2.627	6
EFF	Oil & Grease	5,000	15,900	7,950	10	0	7,950	7,950
EFF	PFOA	0.0004	0.001272	0.000636	2	2	0.004	0.005
EFF	PFOS	0.00054	0.001717	0.0008586	2	2	0.021	0.021
EFF	Selenium*	0.4	1.272	0.636	9	0	0.636	0.636
EFF	Silver	0.3	0.954	0.477	10	0	0.477	0.477
EFF	Surfactants*	10	31.8	15.9	10	9	4,860	6,110
EFF	TPH	5,000	15,900	7,950	10	0	7,950	7,950
EFF	TSS	1,000	3,180	1,590	10	9	55,667	78,000
EFF	Zinc	5.5	17.49	8.745	10	8	25.8	48

Key:

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

DL = Detection limit. The Regulatory Detection Limit that applies for all pollutants in this POS is the EPA Method Limit (ML) which is 3.18 * MDL.

ND = Not detected.

* Arsenic, Mercury, Molybdenum, Selenium, and Surfactants each had one (1) Maximum Result Outlier Value that was excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

Appendix C.2, Effluent Sample Results Summary from Dry Season (June 10-19, 2021)

SAMPLE POINT	ANALYTE	MAXIMUM REPORT MDL (µg/L)	MAXIMUM EPA ML* (µg/L)	CORRESPONDING EPA ML USED FOR DATA AVERAGING AND LL CALCULATION** (µg/L)	TOTAL # SAMPLES	TOTAL # RESULTS ABOVE the EPA ML	AVERAGE RESULT (µg/L)	MAXIMUM RESULT (µg/L)
EFF	Ammonia-N	1.0	3.180	1.59	10	10	20,640	24,800
EFF	Arsenic	0.2	0.636	0.318	10	10	1.19	1.2
EFF	BOD	1,000	3,180	1,590	10	10	116,860	188,000
EFF	Cadmium	0.2	0.636	0.318	10	0	0.318	0.318
EFF	Chlordane	5.0	15.9	7.95	2	0	1.026	1.367
EFF	Chromium	0.5	1.59	0.795	10	10	2.61	3.5
EFF	Copper	0.7	2.226	1.113	10	10	14.35	24.1
EFF	Cyanide, Total	6.0	19.08	9.54	10	0	9.54	9.54
EFF	Dieldrin	0.016	0.05088	0.02544	2	0	0.019	0.025
EFF	Lead*	0.4	1.272	0.636	10	0	0.636	0.636
EFF	Mercury	0.034	0.10812	0.05406	10	0	0.027	0.027
EFF	Molybdenum	0.3	0.954	0.477	10	9	3.57	4.2
EFF	Nickel*	0.7	2.226	1.113	10	10	3.756	6.6
EFF	Oil & Grease*	5,000	15,900	7,950	10	0	7,950	7,950
EFF	PFOA	0.0004	0.001272	0.000636	2	2	0.004	0.005
EFF	PFOS	0.0054	0.0017172	0.0008586	2	1	0.002	0.004
EFF	Selenium	0.4	1.272	0.636	10	0	0.636	0.636
EFF	Silver	0.3	0.954	0.477	10	0	0.477	0.477
EFF	Surfactants	10	31.8	15.9	10	10	5,560	6,480
EFF	TPH	5,000	15,900	7,950	10	0	7,950	7,950
EFF	TSS	1,000	3,180	1,590	10	10	41,200	49,000
EFF	Zinc	5.5	17.49	8.745	10	10	43.49	76.6

Key:

MDL = Method Detection Limit specified on the laboratory report for the pollutant.

DL = Detection limit. The Regulatory Detection Limit that applies for all pollutants in this POS is the EPA Method Limit (ML) which is 3.18 * MDL.

ND = Not detected.

* Lead, Nickel and Oil & Grease each had one (1) Maximum Result Outlier Value that was excluded from average data calculation in this table and/or in the local limits evaluation calculation use.

Electronic Signature CWB Compliance Submittal Form for Individual NPDES Permits and NGPCs

version 1.6

(Submission #: HPH-9DP5-V21CV, version 1)

Digitally signed by:
eha-epermit
eha-cloud.doh.hawaii.gov
Date: 2022.04.29 06:44:15 -10:00
Reason: Copy Of Record
Location: Honolulu, Hawaii

Details

Submission Alias 20220501 Sand Island WWTP Technical Evaluation of Local Limits

Submission ID HPH-9DP5-V21CV

Form Input

Permit or File Number

Provide the assigned individual NPDES permit number (e.g., HI0021841) or the NGPC file number (HIR10E456).
HI0020117

Enter the Parts of the NPDES permit (e.g. Part A.1.a) or NGPC Condition Numbers (e.g. Condition No. 3.a) that correspond to your submittal. For example: You are submitting a Discharge Monitoring Report as required in Condition No. 2 of your NGPC, and you are submitting a change to the facility contact person information as required in Condition No. 8 of your NGPC. You will enter **Condition No. 2** and "Condition No. 8" in the field below.

G.4.d.(2)

Submission Type(s)

Notification of Start

This submission is to notify the Clean Water Branch of the start of construction and/or discharge activities.

Notification of Non-Compliance

This submission is to notify the Clean Water Branch of a non-compliance with an NPDES permit or NGPC.

Discharge Monitoring Report

This submission is to submit a Discharge Monitoring Report (DMR).

Transfer of Ownership

This submission is to request an automatic transfer in accordance with Title 40 of the Code of Federal Regulations (CFR), Section 122.61(b) and Hawaii Administrative Rules, Section 11-55-34.08(i)(2), you need to submit a new NPDES application or Notice of Intent through the e-Permitting portal. You will also have to complete the notice of cessation section of this form to terminate the current NPDES permit or NGPC.

Owner Name Change

This submission is to change the name of the Permittee (e.g., Sharp Equipment changes their name to Sharp Equipment and Industrial Supplies). This is not an ownership change. An owner name change only applies to individual NPDES permits. NGPCs can no longer be modified. An owner name change on an NGPC will require a new NOI, filing fee, and NGPC.

Major Modification

This submission is to request a major modification to an individual NPDES permit. NGPCs cannot be modified.

Reports, Documents, and Other Attachments

This submission is to submit reports, documents and/or other attachments relevant to my NPDES permit or NGPC.

Change of Contact Information

This submission is to update contact information for current contacts, or replace current contacts with new contacts. This does

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☒ I am the owner of the account used to perform the electronic submission and signature.
- ☒ I have the authority to submit the data on behalf of the facility I am representing.
- ☒ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☒ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

Certification Statement

By submitting this form, you certify the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

You also certify:

1. *That for initial modification requests, initial transfer of ownership requests, changes to Authorized Representative information, owner name change, and notice of cessation submissions, the individual submitting this application is the Certifying Person associated with this NPDES permit/NGPC.*
2. *That for notification of start, notification of non-compliance, Discharge Monitoring Report (DMR), change in contact information, and reports, documents, and other attachments submissions, the individual submitting this application is either the Certifying Person or Authorized Representative associated with this NPDES permit/NGPC.*
3. *That for a revised application (an application re-submitted at the request of the DOH-CWB) the individual submitting this revised application either:*
 - *Is the Certifying Person associated with this NPDES permit/NGPC; or*
 - *Is the Authorized Representative associated with this NPDES permit/NGPC except for revised notice of cessation, owner name change and Authorized Representative information submissions.*

Once you have finished reviewing this application and agree to certify the statements above, complete the submission agreements below then click on the submit button to complete the electronic submission of your application. The DOH-CWB will process all applications in the order received. Please note that the DOH-CWB will contact all relevant submission contacts if there are any deficiencies in your application, or if additional information is requested.

**Signed
By**

Roger Babcock on 04/29/2022 at 6:43 AM

not include Certifying Person or Authorized Representative information.

Change of Certifying Person Information

This submission is to update current Certifying Person information or provide new Certifying Person information.

Change of Authorized Representative Information

This submission is to update current Authorized Representative contact information or to authorize a new Authorized Representative.

Note: There can only be one Authorized Representative at a time for an individual NPDES permit or NGPC.

Notice of Cessation

This submission is to notify the Clean Water Branch of the date when discharge from your permitted facility/project has ended. This will also terminate your NPDES permit or NGPC.

Select All Applicable Submission Types

Reports, Documents, and Other Attachments

Reports, Documents, and Other Attachments

Please select the type(s) of document(s) you are submitting. You may submit multiple documents.

Other: 20220501 Sand Island WWTP Technical Evaluation of Local Limits

Upload Document(s). IMPORTANT: DO NOT UPLOAD .ZIP FILES OR OTHER ARCHIVE AND COMPRESSED FILE TYPES.

20220501 Sand Island WWTP Technical Evaluation of Local Limits.pdf - 04/28/2022 01:48 PM

Comment

20220501 Sand Island WWTP Technical Evaluation of Local Limits

ATTACHMENT B.

List of Potentially Impacted Businesses

List of Potentially Impacted Businesses

- COCA-COLA BOTTLING COMPANY OF HAWAII, LLC
- DUST-TEX HONOLULU, INC
- ITO EN (HAWAII), LLC
- PACIFIC BIODIESEL
- PACIFIC ENVIRONMENTAL CORPORATION (PENCO)
- STATE OF HAWAII DEPARTMENT OF TRANSPORTATION AIRPORTS DIVISION
- WAIKIKI AQUARIUM
- STEINER HAWAII, INC, DBA ALSCO
- UNITED LAUNDRY SERVICES, INC (ALAHAO)
- UNITED LAUNDRY SERVICES, INC (HOONEE)

ATTACHMENT C.
DOH Approval Documentation

JOSH GREEN, M.D.
GOVERNOR OF HAWAII
KE KIA'AINA O KA MOKU'AINA 'O HAWAII



RECEIVED

914303
KENNETH S. FINK, MD, MGA, MPH
DIRECTOR OF HEALTH
KA LUNA HO'OKELE

STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378

23 DEC 19 A9:51

In reply, please refer to:
File:

12008EJT.23

December 11, 2023

ENVIRONMENTAL SERVICES
DIVISION OF
ENVIRONMENTAL QUALITY

23 DEC 14 P1:26

DEPARTMENT OF
ENVIRONMENTAL SVCS

Roger Babcock, Jr., Ph.D., P.E.
Director
Department of Environmental Services
City and County of Honolulu
1000 Uluohia Street, Suite 308
Kapolei, Hawaii 96707

Dear Dr. Babcock:

**Subject: Approval of Pretreatment Program Local Area Limits
National Pollutant Discharge Elimination System (NPDES)
City and County of Honolulu (City)
Sand Island and Honouliuli Wastewater Treatment Plants (WWTPs)
Permit Nos. HI 0020117 and HI 0020877**

This letter serves as notice that the Department of Health (DOH), Clean Water Branch (CWB), is providing approval of the Final Technical Evaluation of Local Limits reports for Honouliuli WWTP dated September 30, 2021, and for Sand Island WWTP dated May 1, 2022. The DOH-CWB determined that the reports are in accordance with Part G.4.c of Permit No. HI 0020117 and Permit No. HI 0020877.

While approval is being provided, the DOH-CWB is also providing the following comments for your consideration with future local limit evaluations.

Comments on the Final Technical Evaluation of Local Limits for Sand Island and Honouliuli Wastewater Treatment Plants

1. The Code of Federal Regulations (CFR), Title 40, Part 403.5 requires a Publicly Owned Treatment Works (POTW) to develop and enforce local limits that prevent the introduction of pollutants to the plant that causes Pass Through or Interference, as well as hazardous conditions, corrosive damage, flow obstruction, or threatens the health of the POTW and its workers. Therefore, when developing a pollutants local limit, the removal efficiency that is most protective of the plant should always be utilized.

The Environmental Protection Agency (EPA) has published the EPA Local Limits Development Guidance (Guidance) to aid in the development of local limits. While the Guidance provides important information, it is ultimately meant as a resource,

and judgment must be exercised to ensure the most protective limits are developed.

Generally, the average daily removal efficiency (ADRE) provides the most accurate and reliable removal efficiencies due to its use of paired samples that account for hydraulic residence time within the plant. Therefore, it is preferred that the ADRE is used when the data is available.

In the Honouliuli and Sand Island evaluations, some rationalizations for the selected removal efficiency exhibited deference to the EPA guidance over aggressive protection of the POTW. These rationalizations are as follows:

- a. "When the calculated pollutant removal performance by the WWTP for the given wastewater treatment process is lower than what is expected for that pollutant by the treatment process, the pollutant removal efficiencies stated in *EPA Local Limits Development Guidance, Appendix R* can be used to better characterize pollutant removal efficiency performance."
- b. "The [Mean Removal Efficiency (MRE)] is the preferred removal efficiency calculation recommended by the EPA if less than 10 complete sampling data sets are available for all sample points, per the EPA Local Limits Development Guidance Manual. Considering that not all pollutants were sampled for 10 days or more, the MRE was selected as the pollutant removal efficiency calculation used in this local limits evaluation...Removal efficiencies were calculated using the MRE and Average Daily Removal Efficiency (ADRE) methodologies strictly for the purpose of comparing the two methods since, ultimately, the MRE method, being the EPA's preferred method was used for local limits calculations."

For future evaluations, the DOH-CWB recommends focusing on the calculation methods that are most protective of the plant and its specific capabilities. This may entail developing and executing a sampling plan that ensures collecting samples needed to calculate ADREs for pollutants of concern at the POTW.

2. Evaluations of local limits are intended to be continuous and iterative based on your pre-treatment program's permitting, monitoring and enforcement findings. 40 CFR 403.5(c)(1) and 40 CFR §122.44(j)(2)(ii) state that limits evaluation and development shall continue as needed and following permit issuance or reissuance. During the continual development of local limits, the DOH-CWB recommends that the City utilize the valuable information gathered during its extensive work with the POTW, industrial surveys, Whole Effluent Toxicity Test investigations, and monitoring of commercial and industrial facilities.

Roger Babcock, Jr., Ph.D., P.E.
December 11, 2023
Page 3

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While this letter provides approval of the Technical Evaluations for Sand Island and Honouliuli WWTPs, the final approval of the local area limits is contingent upon formal adoption of rules and policies that implement local area limits. Upon the City's adoption of rules, a copy of the rules, policies and other information necessary for the implementation of the local area limits must be submitted to the DOH-CWB for final approval.

Should you have any questions, please contact Ms. Jamie Tanimoto of the Enforcement Section, CWB, at (808) 586-4309.

Sincerely,

A handwritten signature in cursive script that reads "Darryl Lum".

DARRYL LUM, P.E., CHIEF
Clean Water Branch

JT:ph

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

TITLE 13

CHAPTER 13-3

RULES RELATING TO
INDUSTRIAL WASTEWATER DISCHARGE LOCAL LIMITS

MAY 2024

ADOPTION OF

Rules of the Division of Environmental Quality for
Industrial Wastewater Discharge Local Limits

_____ (Adoption Date)

SUMMARY

Rules of the Division of Environmental Quality for Industrial Wastewater Discharge Local
Limits is adopted.

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

CHAPTER 13-3 INDUSTRIAL WASTEWATER DISCHARGE LOCAL LIMITS

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RULES RELATING TO INDUSTRIAL WASTEWATER DISCHARGE LOCAL LIMITS

§13-3-1 Purpose

b. The purpose of this Rule is to implement specific Local Limits to control pollutants from Significant Industrial Users (SIUs) which may cause Pass Through or Interference at the publicly owned treatment works (POTW), as defined by 40 CFR 403.3; or which may violate the specific prohibitions under 40 CFR 403.5(b). CCH has an Approved Pretreatment Program and is required to develop site-specific local limits as required by 40 CFR Part 403 and as directed by the State of Hawai‘i, Department of Health (DOH). As directed by DOH, the local limits set forth by this Rule adhere to the U.S. Environmental Protection Agency’s (EPA) *Introduction to the National Pretreatment Program* (EPA-833-B-11-001, June 2011), and the EPA’s *Local Limits Development Guidance* (EPA 833-R-04-002A, June 2004).

[Eff: 10/1/2017] [Auth: ROH §§43-1.1, 43-1.3](Imp: ROH §§43-1.1, 43-1.3)

This Rule incorporates the definitions set forth in Sections 43-1.2 and 43-11.2 of the ROH. In addition, this Rule utilizes the following definitions.

“Allowable Headworks Loading (AHL)” means the estimated maximum loading of a pollutant that can be received at a POTW’s headworks that should not cause a POTW to violate a particular treatment plant or environmental criterion. AHLs are developed to prevent interference or pass through.

“Daily Discharge” means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measure, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

“Daily Maximum or Maximum Daily Discharge Limitation” means the highest allowable “daily discharge.”

“Domestic Background” means the wastewater sourced from non-controllable, non-industrial sources including residential, light commercial, and domestic hauled waste sources. “Industrial User (IU)” means any person, firm, corporation or other entity that is a source of non-domestic discharge to the POTW.

“Maximum Allowable Headworks Loading (MAHL)” means the estimated maximum loading of a pollutant that can be received at a POTW’s headworks without causing pass through or interference. The most protective (lowest) of the AHLs estimated for a pollutant.

“Maximum Allowable Industrial Loading (MAIL)” means the estimated maximum loading of a pollutant that can be received at a POTW’s headworks from all permitted industrial users and other controlled sources without causing pass through or interference. The MAIL is usually calculated by applying a safety factor to the MAHL and discounting for uncontrolled sources, hauled waste, and growth allowance.

“Mass Emission Rate” or “Mass Emission Limit” means the amount of pollutant discharged to the sanitary sewer as measured in mass per time, usually expressed as pounds per day.

“Method Detection Limit (MDL)” means the minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is present as determined by a specific laboratory method in 40 CFR Part 136, Appendix B.

“Pollutant of Concern (POC)” means any pollutant that might reasonably be expected to be discharged to the POTW in sufficient amounts to pass through or interfere with the works, contaminate its sludge, cause problems in its collection system, or jeopardize its workers.

“Total Suspended Solids (TSS)” means a measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for “total suspended non-filterable solids” (Standard Method 2540D).

[Eff [Auth: ROH §43-1.3](Imp: ROH §43-1.3)

§13-3-3 Authority

Chapter 43, Article 1 of the Revised Ordinances of Honolulu 2021, as amended (ROH), gives the Director the authority to, among other items, conduct an industrial waste pretreatment program; to issue permits containing discharge requirements; to promulgate local limitations imposing specific discharge requirements; and to promulgate such rules and regulations necessary to accomplish the purposes of ROH Chapter 43 in accordance with the requirements that have been or may be promulgated by the EPA.

[Eff] [Auth: ROH §§1-9.1, 9-2.8, 43-1.3](Imp: ROH §§1-9.1, 9-2.8, 43-1.3)

§13-3-4 Applicability

This Rule and its amendments shall be applicable to any SIU that discharges wastewater directly or indirectly or has the potential to discharge industrial process wastewater to the sanitary sewer of CCH.

[Eff] [Auth: ROH §§43-1.3, 43-1.8, 43-5.7](Imp: ROH §§43-1.3, 43-1.8, 43-5.7)

§13-3-5 Enforcement

Any SIU that violates any provision of this Rule shall be enforced upon in accordance with the legal authority provided by the ROH and the procedures set forth in Title 13, Chapter 1 of the City and County of Honolulu Administrative Rules (Rules of Practice and Procedure).

[Eff: ROH §§43-1.3, 43-5.7, 43-5.9, 43-5.15, 43-5.18](Imp: ROH §§43-1.3, 43-5.7, 43-5.9, 43-5.15, 43-5.18)

§13-3-6 Effective Date

This Rule takes effect ten days after filing of a certified copy of this Rule with the City Clerk of CCH.

[Eff HRS §91-4)][Auth: ROH §§43-1.3, 43-1.8, HRS §91-4](Imp: ROH §§43-1.3, 43-1.8,

SUBCHAPTER 2 LOCAL LIMITS

§13-3-7 Local Limits for Discharges to the Sand Island Wastewater Treatment Plant

- a. The Local Limits under this section are based on the “Technical Evaluation of Local Limits for Sand Island Wastewater Treatment Plant”, dated May 1, 2022.
- b. The Local Limits requirements shall be in addition to the prohibitions set forth in Section 43-1.8 of the ROH, including the national categorical pretreatment standards. SIUs shall adhere to the most stringent standard as applicable.
- c. No SIU shall discharge or cause to be discharged wastewater in excess of the following Local Limits into any public sewer or any private sewer that is connected to the public sewer in the Sand Island Wastewater Treatment Plant service area. The Local Limits will be allocated to each SIU on a tributary-wide basis, which CCH will designate through the SIU’s permits as follows:
 1. Biochemical Oxygen Demand (BOD₅): The concentration limit is 5,696 mg/L. The MAIL-based limit is 29,566 lbs/day. Newly permitted SIUs shall obtain a minimum of one year of concentration and flow data which shall be submitted for CCH to calculate and apply allocations of BOD₅ limits in the SIU’s permit. Until a minimum of one year’s worth of data is available and until CCH reissues the SIU’s permit, new SIUs shall meet the 5,696 mg/L BOD₅ local limit.
 2. Total Petroleum Hydrocarbons (TPH): The concentration limit is 100 mg/L. The MAIL-based limit is 29,950 lbs/day. Newly permitted SIUs, shall obtain a minimum of one year of concentration and flow data which shall be submitted for CCH to calculate and apply allocations of TPH limits in the SIU’s permit. Until a minimum of one year’s worth of data is available and until CCH reissues the SIU’s permit, new SIUs shall meet the 100 mg/L TPH local limit.
 3. Zinc: The MAIL-based limit is 12.73 lbs/day. Newly permitted SIUs shall obtain a minimum of one year of concentration and flow data which shall be submitted for CCH to calculate and apply allocations of Zinc limits in the SIU’s permit. Until a minimum of one year’s worth of data is available, CCH will designate an interim allocation of Zinc limits based on the SIU’s estimated flow rate as documented on their industrial wastewater discharge permit application submission. Once a minimum of one year’s worth of the SIU’s flow is submitted, CCH will reallocate the SIU’s Zinc limits and will reissue the SIU’s permit.

[Eff 1.8, HRS §91-4)][Auth: ROH §§43-1.3, 43-1.8, 43-5.7, HRS §91-4](Imp: ROH §§43-1.3,43-1.8, HRS §91-4)

§13-3-8 Local Limits for Discharges to the Honouliuli Wastewater Treatment Plant-Reserved

§13-3-9 Local Limits for Discharges to the Kailua Wastewater Treatment Plant-Reserved

§13-3-10 Local Limits for Discharges to the Waianae Wastewater Treatment Plant-Reserved

III. New Business

B. Discussion and Action on the Small Business Impact Statement and Proposed Amendments to HAR Title 11 Chapter 60.1 Air Pollution Control, promulgated by Department of Health

**PRE-PUBLIC HEARING SMALL BUSINESS IMPACT STATEMENT
TO THE
SMALL BUSINESS REGULATORY REVIEW BOARD**

(Hawaii Revised Statutes §201M-2)

Date: 5/8/2024

Department or Agency: Department of Health, Clean Air Branch

Administrative Rule Title and Chapter: HAR Title 11, Department of Health, Chapter 60.1

Chapter Name: Air Pollution Control

Contact Person/Title: Rana Balanay

E-mail: rana.balanay@doh.hawaii.gov Phone: (808) 586-4200

A. To assist the SBRRB in complying with the meeting notice requirement in HRS §92-7, please attach a statement of the topic of the proposed rules or a general description of the subjects involved.

B. Are the draft rules available for viewing in person and on the Lieutenant Governor's Website pursuant to HRS §92-7?

☐

Yes

☒

No

If "Yes," provide details: _____

I. Rule Description:

☐

New

☐

Repeal

☒

Amendment

☐

Compilation

II. Will the proposed rule(s) affect small business?

☒

Yes

☐

No

(If "No," no need to submit this form.)

* "Affect small business" is defined as "any potential or actual requirement imposed upon a small business . . . that will cause a direct and significant economic burden upon a small business, or is directly related to the formation, operation, or expansion of a small business." HRS §201M-1

* "Small business" is defined as a "for-profit corporation, limited liability company, partnership, limited partnership, sole proprietorship, or other legal entity that: (1) Is domiciled and authorized to do business in Hawaii; (2) Is independently owned and operated; and (3) Employs fewer than one hundred full-time or part-time employees in Hawaii." HRS §201M-1

III. Is the proposed rule being adopted to implement a statute or ordinance that does not require the agency to interpret or describe the requirements of the statute or ordinance?

☐

Yes

☒

No

(If "Yes" no need to submit this form. E.g., a federally-mandated regulation that does not afford the agency the discretion to consider less restrictive alternatives. HRS §201M-2(d))

IV. Is the proposed rule being adopted pursuant to emergency rulemaking? (HRS §201M-2(a))

☐

Yes

☒

No

(If "Yes" no need to submit this form.)

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If the proposed rule affects small business and are not exempt as noted above, please provide a reasonable determination of the following:

1. Description of the small businesses that will be required to comply with the proposed rules and how they may be adversely affected.
Repeal of Section 11-60.1-16.5 has no impact on small businesses. EPA removed provisions from the Title V Operating Permit Program regulations which generally applies to larger facilities.
Amendment of Section 11-60.1-152 only affects entities that have personnel who participate in fire fighter training.
2. In dollar amounts, the increase in the level of direct costs such as fees or fines, and indirect costs such as reporting, recordkeeping, equipment, construction, labor, professional services, revenue loss, or other costs associated with compliance.
None.

If the proposed rule imposes a new or increased fee or fine:

- a. Amount of the current fee or fine and the last time it was increased.
N/A
 - b. Amount of the proposed fee or fine and the percentage increase.
 - c. Reason for the new or increased fee or fine.
 - d. Criteria or methodology used to determine the amount of the fee or fine (i.e., Consumer Price Index, Inflation rate, etc.).
3. The probable monetary costs and benefits to the agency or other agencies directly affected, including the estimated total amount the agency expects to collect from any additionally imposed fees and the manner in which the moneys will be used.
None

4. The methods the agency considered or used to reduce the impact on small business such as consolidation, simplification, differing compliance or reporting requirements, less stringent deadlines, modification of the fines schedule, performance rather than design standards, exemption, or other mitigating techniques.

There will be little or no impact on any organization, including small businesses, so no methods were considered.

5. The availability and practicability of less restrictive alternatives that could be implemented in lieu of the proposed rules.

None. The repeal of section 11-60.1-16.5 is federally mandatory. The amendment to 11-60.1-152 will help anyone responsible for fire fighting to train on non-structural fires including wildfires.

6. Consideration of creative, innovative, or flexible methods of compliance for small businesses. The businesses that will be directly affected by, bear the costs of, or directly benefit from the proposed rules.

None.

7. How the agency involved small business in the development of the proposed rules.

None. Since the proposed amendments have little to no impact on any business, other than fire fighters. We did not solicit comments from any organization.

- a. If there were any recommendations made by small business, were the recommendations incorporated into the proposed rule? If yes, explain. If no, why not.

8. Whether the proposed rules include provisions that are more stringent than those mandated by any comparable or related federal, state, or county standards, with an explanation of the reason for imposing the more stringent standard.

No.

If yes, please provide information comparing the costs and benefits of the proposed rules to the costs and benefits of the comparable federal, state, or county law, including the following:

- a. Description of the public purposes to be served by the proposed rule.
- b. The text of the related federal, state, or county law, including information about the purposes and applicability of the law.
- c. A comparison between the proposed rule and the related federal, state, or county law, including a comparison of their purposes, application, and administration.
- d. A comparison of the monetary costs and benefits of the proposed rule with the costs and benefits of imposing or deferring to the related federal, state, or county law, as well as a description of the manner in which any additional fees from the proposed rule will be used.
- e. A comparison of the adverse effects on small business imposed by the proposed rule with the adverse effects of the related federal, state, or county law.

* * *

Small Business Regulatory Review Board / DBEDT
Phone: (808) 586-2594 / Email: DBEDT.sbrrb.info@hawaii.gov

This Statement may be found on the SBRRB Website at: <http://dbedt.hawaii.gov/sbrrb/resources/small-business-impact-statements>

Justification for
Proposed Amendments to

Hawaii Administrative Rules
Title 11
Department of Health
Chapter 60.1
Air Pollution Control

Department of Health
Environmental Management Division
Clean Air Branch
Honolulu, Hawaii

May 8, 2024

Hawaii Revised Statutes §342G-44: Double-sided copying shall be standard operating practice for all state and county agencies, offices, and facilities, as available and appropriate.

Introduction

This justification serves to explain and provide a rationale for the proposed revisions to Department of Health, Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control (hereafter referred to as Chapter 11-60.1).

This includes four amendments to the HAR: two revisions remove the Emergency Affirmative Defense provision (as mandated by EPA) and two others improve and clarify the Open Burning provisions. The changes include the following:

Emergency Affirmative Defense provision:

- Remove exception for emergencies in 11-60.1-16 Prompt reporting of deviations.
- Remove section §11-60.1-16.5 Emergency provision from HAR.

Open Burning:

- Amend language from §11-60.1-52, to allow for non-structural types of firefighting training, with proper advanced notification to the director.
- Clarify that no-burn periods are not only for weather conditions which inhibit the dispersion of air pollutants, but are also for high wind events that can spread air pollutants and increase fire danger.

Additional information on these proposed rule amendments may be obtained by contacting Mses. Catherine Lopez or Lisa Young of the Clean Air Branch (CAB) at the following:

Clean Air Branch
Hawaii Department of Health
2827 Waimano Home Road, #130
Pearl City, HI 96782

Phone: (808) 586-4200
Fax: (808) 586-4359
email: CAB@doh.hawaii.gov

Proposed Changes and Justification

The proposed changes are shown in Ramseyer format where material to be deleted is bracketed and struck out and new material is underscored. To minimize the amount of paper used in this document the draft rules are not shown exactly as they would appear according to the Hawaii Administrative Rules Drafting Manual.

The amendments are presented in order and grouped by subchapter. Each proposed amendment is listed by section. Sections may have more than one change; when multiple purposes for the changes exist, each is addressed. A line of asterisks within a section indicates a portion of a section that is not affected and therefore not displayed.

1. Amendments to Subchapter 1 General Requirements

§11-60.1-16 Prompt reporting of deviations. (a) ~~[Except for emergencies which result in noncompliance with any technology-based emission limitation pursuant to section 11-60.1-16.5, i]~~ In the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of this chapter or a permit, the owner or operator shall immediately notify the department of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. (b)

Justification:

The amendment removes allowed exception for, and reference to, section 11-60.1-16.5.

~~**§11-60.1-16.5 Emergency provision.** (a) An emergency constitutes an affirmative defense to any action brought for noncompliance with any technology-based emission limitation, if it can be demonstrated to the director through properly signed, contemporaneous operating logs, or other relevant evidence that:~~

- ~~(1) An emergency occurred and the owner or operator of the source can identify the cause or causes of the emergency;~~
- ~~(2) The permitted facility was at the time being properly operated;~~
- ~~(3) During the period of the emergency, the owner or operator of the source took all reasonable steps to minimize emission levels that exceeded the emission limitations or other requirements in the covered or noncovered source permit; and~~
- ~~(4) The owner or operator of the source submitted written notice of the emergency to the director within two working days of the time when emission limitations were exceeded due to the emergency, provided that the notice contained a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.~~

~~(b) In any proceedings for enforcement action, the owner or operator of the source seeking to establish the occurrence of an emergency has the burden of proof.~~

~~(c) This emergency provision is in addition to any emergency or upset provision in any applicable requirement. [Eff and comp 9/15/01; comp 11/14/03, comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)~~

~~Historical note: §11-60.1-16.5 is based substantially upon §11-60.1-97. [Eff 11/26/93; comp 10/26/98; R 9/15/01]]~~

Justification:

As mandated by EPA, because EPA has removed the subject provision from Title V operating permit program regulations, as of August 21, 2023, the amendment removes the Emergency affirmative defense provision from HAR section 11-60.1-16.5,

2. Amendments to Subchapter 3 Open Burning

§11-60.1-52 General provisions. (a) Except as provided in subsections (b), (c), (d), (e) and section 11-60.1-53, no person shall cause, permit, or maintain any open burning. Any open burning is the responsibility of the person owning, operating, or managing the property, premises, business establishment, or industry where the open burning is occurring. Subsections (b), (c), (d), (e) and section 11-60.1-53 shall not apply to the open burning of human remains or animal carcasses unless the activities fall under the exemptions found in paragraph (d)(2).

(b) Subsection (a) shall not apply to attended fires for the cooking of food provided that:

- (1) Only untreated dry wood, charcoal, natural or synthetic natural gas, butane, propane, or cooking fuel is used, and
- (2) If visible smoke enters any residence, business or public area, best practical measures to eliminate the smoke, including extinguishing the fire, are taken.

(c) Subsection (a) shall not apply to the training of personnel in firefighting methods [following], provided that notification is given to the director prior to the commencement of any burn[+
~~[(1) Fires set to a building, structure or simulated aircraft for training personnel in firefighting methods]~~.

Justification:

Change wording of 11-60.1-52 General Provisions (c), to allow for other training methods by not limiting fire fighting training to only include buildings, structures, or aircraft.

§11-60.1-55 Agricultural burning or conditionally allowed open burning from subsection 11- 60.1-52(e): "no-burn" periods. (a) Except as provided in subsection (f), no person, with or without an agricultural burning permit, shall cause or allow agricultural burning or conditionally allowed open burning from subsection 11-60.1-52(e) when a "no-burn" period has been declared by the director.

(b) "No-burn" periods shall be determined by current and forecasted weather conditions which could increase air pollutants or inhibit the dispersion of air pollutants. A no-burn period may be declared if unfavorable meteorological conditions such as high winds, temperature inversions and air stagnation are existing and forecasted to continue or deteriorate. If forecasting is unavailable, "no-burn" periods shall be determined based on visibility.

Justification:

High winds are already included in no-burn provision, HAR 11-60.1-55(b). Amendment will add clarity that the high winds will not inhibit the dispersion of air pollutants, but rather can contribute and add air pollutants in the form of particulate matter from dust and/or fire.

DEPARTMENT OF HEALTH

Amendment and Compilation of Chapter 11-60.1
Hawaii Administrative Rules

DATE ??, 2024

SUMMARY

1. §11-60.1 table of contents is amended.
2. §11-60.1-16 is amended.
3. §11-60.1-16.5 is repealed.
4. §11-60.1-52 is amended.
5. §11-60.1-55 is amended.

DEPARTMENT OF HEALTH
Amendment and Compilation of Chapter 11-60.1
Hawaii Administrative Rules

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 60.1

AIR POLLUTION CONTROL

Subchapter 1 General Requirements

§11-60.1-1	Definitions
§11-60.1-2	Prohibition of air pollution
§11-60.1-2.5	Credible evidence
§11-60.1-3	General conditions for considering applications
§11-60.1-4	Certification
§11-60.1-5	Permit conditions
§11-60.1-6	Holding of permit
§11-60.1-7	Transfer of permit
§11-60.1-8	Reporting discontinuance
§11-60.1-9	Cancellation of a noncovered or covered source permit
§11-60.1-10	Permit termination, suspension, reopening, and amendment
§11-60.1-11	Sampling, testing, and reporting methods
§11-60.1-12	Air quality models
§11-60.1-13	Operations of monitoring stations
§11-60.1-14	Public access to information
§11-60.1-15	Reporting of equipment shutdown
§11-60.1-16	Prompt reporting of deviations

~~[\$11-60.1-16.5 Emergency provision]~~

\$11-60.1-17	Prevention of air pollution emergency episodes
\$11-60.1-18	Variances
\$11-60.1-19	Penalties and remedies
\$11-60.1-20	Severability

Subchapter 2 General Prohibitions

\$11-60.1-31	Applicability
\$11-60.1-32	Visible emissions
\$11-60.1-33	Fugitive dust
\$11-60.1-34	Motor vehicles
\$11-60.1-35	Incineration
\$11-60.1-36	Biomass fuel burning boilers
\$11-60.1-37	Process industries
\$11-60.1-38	Sulfur oxides from fuel combustion
\$11-60.1-39	Storage of volatile organic compounds
\$11-60.1-40	Volatile organic compound water separation
\$11-60.1-41	Pump and compressor requirements
\$11-60.1-42	Waste gas disposal
\$11-60.1-43	All operation and maintenance of permitted source

Subchapter 3 Open Burning

\$11-60.1-51	Definitions
\$11-60.1-52	General provisions
\$11-60.1-53	Agricultural burning: permit applicability
\$11-60.1-54	Agricultural burning permit application
\$11-60.1-55	Agricultural burning or conditionally allowed open burning from subsection 11-60.1-52(e): "no-burn" periods
\$11-60.1-56	Agricultural burning: recordkeeping and monitoring
\$11-60.1-57	Agricultural burning: action on application
\$11-60.1-58	Agricultural burning: permit content

Subchapter 4 Noncovered Sources

§11-60.1-61	Definitions
§11-60.1-62	Applicability
§11-60.1-63	Initial noncovered source permit application
§11-60.1-64	Duty to supplement or correct permit applications
§11-60.1-65	Compliance Plan
§11-60.1-66	Transition into the noncovered source permit program
§11-60.1-67	Permit term
§11-60.1-68	Permit content
§11-60.1-69	Temporary noncovered source permits
§11-60.1-70	Noncovered source general permits
§11-60.1-71	Transmission of information to the administrator
§11-60.1-72	Permit reopening
§11-60.1-73	Public participation
§11-60.1-74	Noncovered source permit renewal applications
§11-60.1-75	Administrative permit amendment
§11-60.1-76	Applications for modifications

Subchapter 5 Covered Sources

§11-60.1-81	Definitions
§11-60.1-82	Applicability
§11-60.1-83	Initial covered source permit application
§11-60.1-84	Duty to supplement or correct permit applications
§11-60.1-85	Compliance plan
§11-60.1-86	Compliance certification of covered sources
§11-60.1-87	Transition period
§11-60.1-88	Action on applications submitted within one year of the effective date of this chapter

§11-60.1-88.5	Permit action on insignificant activities
§11-60.1-89	Permit term
§11-60.1-90	Permit content
§11-60.1-91	Temporary covered source permits
§11-60.1-92	Covered source general permits
§11-60.1-93	Federally-enforceable permit terms and conditions
§11-60.1-94	Transmission of information to the Administrator
§11-60.1-95	EPA oversight
§11-60.1-96	Operational flexibility
§11-60.1-97	Repealed.
§11-60.1-98	Permit reopening
§11-60.1-99	Public participation
§11-60.1-100	Public petitions
§11-60.1-101	Covered source permit renewal applications
§11-60.1-102	Administrative permit amendment
§11-60.1-103	Applications for minor modifications
§11-60.1-104	Applications for significant modifications

Subchapter 6 Fees for Covered Sources, Noncovered Sources, and Agricultural Burning

§11-60.1-111	Definitions
§11-60.1-112	General fee provisions for covered sources
§11-60.1-113	Application fees for covered sources
§11-60.1-114	Annual fees for covered sources
§11-60.1-115	Basis of annual fees for covered sources
§11-60.1-116	Repealed.
§11-60.1-117	General fee provisions for noncovered sources
§11-60.1-118	Application fees for noncovered sources
§11-60.1-119	Annual fees for noncovered sources
§11-60.1-120	Repealed.

§11-60.1-121 Application fees for agricultural
 burning permits

Subchapter 7 Prevention of Significant
 Deterioration Review

§11-60.1-131 Definitions
§11-60.1-132 Source applicability
§11-60.1-133 Repealed
§11-60.1-134 Repealed
§11-60.1-135 Repealed
§11-60.1-136 Repealed
§11-60.1-137 Repealed
§11-60.1-138 Repealed
§11-60.1-139 Repealed
§11-60.1-140 Repealed
§11-60.1-141 Repealed
§11-60.1-142 Repealed
§11-60.1-143 Repealed
§11-60.1-144 Repealed
§11-60.1-145 Repealed
§11-60.1-146 Repealed
§11-60.1-147 Repealed
§11-60.1-148 Repealed
§11-60.1-149 Repealed
§11-60.1-150 Repealed

Subchapter 8 Standards of Performance for
 Stationary Sources

§11-60.1-161 New source performance standards
§11-60.1-162 Repealed.
§11-60.1-163 Federal plans

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Historical note: This chapter is based substantially upon chapter 11-60. [Eff 11/29/82; am and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

SUBCHAPTER 1

GENERAL REQUIREMENTS

§11-60.1-1 Definitions. As used in this chapter, unless otherwise defined for purposes of a particular subchapter or section of this chapter:

" $\mu\text{g}/\text{m}^3$ " means micrograms per cubic meter.

"Act" means the Clean Air Act, as amended, 42 United States Code Section 7401, et seq.

"Administrative permit amendment" means a permit amendment which:

- (1) Corrects typographical errors;
- (2) Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- (3) Requires more frequent monitoring or reporting by the permittee;
- (4) Consolidates the terms and conditions of two or more noncovered source permits into one noncovered source permit for a facility;
- (5) Consolidates the terms and conditions of two or more covered source permits into one covered source permit for a facility;
- (6) Incorporates applicable requirements for any insignificant activity listed in section 11-60.1-82(f) or (g), provided the activity is not by itself subject to subchapters 8 or 9, does not cause a noncovered stationary source to become a major source, and does not cause the stationary source to become subject to provisions of subchapters 7, 8, or 9; or
- (7) Allows for a change in ownership or operational control of a source provided the department has determined that no other change in the permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability

between the current and new permittees has been submitted to the director.

"Administrator" means the Administrator of the EPA or the Administrator's designee.

"Agricultural burning permit" means written authorization from the director to engage in agricultural burning.

"Air pollutant" has the same meaning as in chapter 342B, HRS.

"Air pollution" means the presence in the outdoor air of substances in quantities and for durations which may endanger human health or welfare, plant or animal life, or property or which may unreasonably interfere with the comfortable enjoyment of life and property throughout the State and in such areas of the State as are affected thereby, but excludes all aspects of employer-employee relationships as to health and safety hazards.

"Air pollution control equipment" means equipment or a facility of a type intended to eliminate, prevent, reduce, or control the emissions of any regulated or hazardous air pollutant to the atmosphere.

"Allowable emissions" means the emissions of a stationary source calculated using the maximum rated capacity of the source, unless the source is subject to federally enforceable limits which restrict the operating rate, capacity, or hours of operations, or any combination of these, and the most stringent of the following:

- (1) The applicable standards set forth in the Standards of Performance for New Stationary Sources or the National Emissions Standards for Hazardous Air Pollutants;
- (2) Any Hawaii state implementation plan emission limitation, including those with a future compliance date; and
- (3) The emission rates specified as a federally enforceable permit condition, including those with a future compliance date.

"Applicant" means any person who submits an application for a permit.

"Authority to construct" means the permit issued by the director pursuant to repealed chapter 11-60 giving approval or conditional approval to an owner or operator to construct an air pollution source.

"Best available control technology" means an emissions limitation including a visible emission standard based on the maximum degree of reduction for each regulated air pollutant which would be emitted from any proposed stationary source or modification which the director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard promulgated pursuant to 40 CFR Parts 60, 61, and 63. If the director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice, or operation, and shall provide for compliance by means which achieve equivalent results.

"Biogenic CO₂ emissions" mean CO₂ emissions from a stationary source directly resulting from the combustion or decomposition of biologically-based materials other than fossil fuels and mineral sources of carbon. Examples of biogenic CO₂ emissions include, but are not limited to: CO₂ generated from the biological decomposition of waste in landfills, wastewater treatment or manure management processes;

CO₂ from the combustion of biogas collected from biological decomposition of waste in landfills, wastewater treatment or manure management processes; CO₂ from fermentation during ethanol production or other industrial fermentation processes; CO₂ from combustion of the biological fraction of municipal solid waste or biosolids; CO₂ from combustion of the biological fraction of tire-derived fuel; and CO₂ derived from combustion of biological material, including all types of wood and wood waste, forest residue, and agricultural material.

"Biomass fuel burning boilers" means fuel burning equipment in which the actual heat input of biomass fuel exceeds the actual heat input of fossil fuels, calculated on an annual basis.

"BTU" means British thermal unit.

"Carbon dioxide" means a gas emitted naturally or from human activities such as the burning of fossil fuels and biomass, land-use changes, and industrial processes. It is the principal anthropogenic greenhouse gas that affects the Earth's radiative balance. It is the reference gas against which other greenhouse gases are measured and therefore has a global warming potential of one.

"CFR" means the Code of Federal Regulations.

"CO₂" means carbon dioxide.

"CO₂ equivalent emissions" means the amount of greenhouse gases emitted as computed by multiplying the mass amount of emissions (tpy) for each of the six greenhouse gases in the pollutant GHGs, by the gases' associated global warming potential values published at 40 CFR Part 98, Subpart A, Table A-1, and summing the resultant values of each gas to compute a TPY CO₂ equivalent.

"CO₂e" means carbon dioxide equivalent emissions.

"Commenced" as applied to construction of or modification to a stationary source means that the owner or operator has all necessary preconstruction approvals or permits and either has:

- (1) Begun, or caused to begin a continuous program of actual operation or on-site construction of the source; or

- (2) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual operation or construction of the source.

"Complete" means, in reference to an application for a permit, that the application contains all of the information necessary to begin and reasonably complete processing the application.

"Compliance plan" means a plan which includes a description of how a source will comply with all applicable requirements, and includes a schedule of compliance under which the owner or operator will submit progress reports to the director no less frequently than every six months.

"Construction" means a physical change or change in the method of operation including fabrication, erection, installation, demolition, or modification of an emissions unit which would result in a change in actual emissions.

"Covered source" means:

- (1) Prior to program approval:
 - (A) Any major source;
 - (B) Any source subject to a standard or other requirement under Section 111 of the Act;
 - (C) Any source subject to an emissions standard or other requirement for hazardous air pollutants pursuant to Section 112 of the Act, with the exception of those sources solely subject to regulations or requirements pursuant to Section 112(r) of the Act; and
 - (D) Any source subject to the rules for prevention of significant deterioration of air quality as established in subchapter 7.
- (2) Upon program approval and thereafter:
 - (A) Any major source;

- (B) Any source subject to a standard or other requirement under Section 111 or 112 of the Act designated by the Administrator as requiring a Title V permit, such as subject solid waste incineration units; and
- (C) Any source subject to the rules for prevention of significant deterioration of air quality as established in subchapter 7.

"Covered source permit" means a permit or group of permits covering a covered source that is issued, renewed, or amended pursuant to this chapter. A covered source permit generally is synonymous with a "Title V," "operating," or "part 70" permit as referred to in federal regulations or standards.

"Credible evidence" means various kinds of information other than reference test data, much of which is already available and utilized for other purposes, that may be used to determine compliance or noncompliance with emission standards.

"Department" means the department of health of the State of Hawaii.

"Director" means the director of health of the State of Hawaii or an authorized agent, officer, or inspector.

"Draft permit" means the version of a permit for which the director offers public notice, including the method by which a public hearing can be requested, and an opportunity for public comment pursuant to section 11-60.1-99.

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance,

careless or improper operation, or operator error, and shall not include an exceedance of a health-based emission limitation.

"Emission" means the act of releasing or discharging air pollutants into the ambient air from any source or an air pollutant which is released or discharged into the ambient air from any source.

"Emission limitation" means a requirement established by the director or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated or hazardous air pollutant.

"EPA" means the United States Environmental Protection Agency.

"Existing covered source" means a stationary covered source that has received an authority to construct permit, commenced construction or modification, or was in operation prior to the effective date of this chapter.

"Existing noncovered source" means a stationary noncovered source that has received an authority to construct permit, commenced construction or modification, or was in operation prior to the effective date of this chapter.

"Federally enforceable" means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR Parts 60, 61, and 63; requirements within the Hawaii State implementation plan; or any permit requirements established pursuant to 40 CFR Part 52.21 or all permit terms and conditions in a covered source permit except those specifically designated as not federally enforceable or regulations approved pursuant to 40 CFR Part 51 Subpart I, including operating permits issued under an EPA-approved program that is

incorporated into this subchapter and expressly requires adherence to any permit issued under such program.

"Fossil fuel" means a hydrocarbon deposit, such as petroleum, coal, or natural gas, derived from the accumulated remains of plants and animals of a previous geologic time and used for fuel.

"Fuel burning equipment" means a furnace, boiler, internal combustion engine, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power.

"Fugitive dust" means the emission of solid airborne particulate matter from any source other than combustion.

"Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"Gas-tight" means no detectable gaseous emissions.

"Global warming potential" means the relative scale of how much a given mass of greenhouse gas is estimated to heat up the atmosphere in comparison to carbon dioxide having a global warming potential of one.

"Greenhouse gases" means the air pollutant defined as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

"GHG or GHGs" means greenhouse gas or greenhouse gases.

"Hazardous air pollutants" means those hazardous air pollutants listed pursuant to Section 112(b) of the Act and any other hazardous air pollutants listed in section 11-60.1-172.

"HRS" means the Hawaii Revised Statutes.

"Major source" means:

- (1) For hazardous air pollutants, a source or a group of stationary sources that is located on one or more contiguous or adjacent properties, and is under common control of

- the same person (or persons under common control) and that emits or has the potential to emit considering controls and fugitive emissions, any hazardous air pollutant, except radionuclides, in the aggregate of ten tons per year or more of a single pollutant or twenty-five tons per year or more of any combination of pollutants; or
- (2) For any other pollutant, a source, or a group of stationary sources that is located on one or more contiguous or adjacent properties, and is under common control of the same person (or persons under common control) belonging to a single major industrial grouping (i.e., all having the same two-digit Standard Industrial Classification Code) and that emits or has the potential to emit, considering controls, one hundred tons per year or more of any air pollutant subject to regulation other than the pollutant greenhouse gases. Fugitive emissions from the stationary source shall be considered in determining whether the stationary source is major, if it belongs to one of the following categories of stationary sources:
- (A) Coal cleaning plants (with thermal dryers);
 - (B) Kraft pulp mills;
 - (C) Portland cement plants;
 - (D) Primary zinc smelters;
 - (E) Iron and steel mills;
 - (F) Primary aluminum ore reduction plants;
 - (G) Primary copper smelters;
 - (H) Municipal incinerators capable of charging more than fifty tons of refuse per day;
 - (I) Hydrofluoric, sulfuric, or nitric acid plants;
 - (J) Petroleum refineries;
 - (K) Lime plants;
 - (L) Phosphate rock processing plants;

- (M) Coke oven batteries;
- (N) Sulfur recovery plants;
- (O) Carbon black plants (furnace process);
- (P) Primary lead smelters;
- (Q) Fuel conversion plants;
- (R) Sintering plants;
- (S) Secondary metal production plants;
- (T) Chemical process plants - the term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
- (U) Fossil fuel boilers (or combination thereof) totaling more than two hundred fifty million BTU per hour heat input;
- (V) Petroleum storage and transfer units with a total storage capacity exceeding three hundred thousand barrels;
- (W) Taconite ore processing plants;
- (X) Glass fiber processing plants;
- (Y) Charcoal production plants;
- (Z) Fossil fuel fired steam electric plants of more than two hundred fifty million BTU per hour heat input; and
- (AA) Any other stationary source which as of August 7, 1980 is being regulated by a standard promulgated pursuant to Section 111 or 112 of the Act.

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation shall not be considered malfunctions.

"Maximum achievable control technology" means the maximum degree of reduction in emissions of the hazardous air pollutants, on a case-by-case basis, taking into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements, that is deemed achievable.

"Monitoring device" means the total equipment, required under the monitoring of operations sections in all applicable subparts, used to measure and record (if applicable) process parameters. Nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence information, relevant to whether a source would have been in compliance with any applicable requirements if the appropriate performance or compliance test or procedure had been performed.

"Month" means a calendar month.

"NAICS" means the North American Industry Classification System used by business and government to classify business establishments according to type of economic activity (process of production) in the United States, Canada, and Mexico. The NAICS numbering system employs a six-digit code at the most detailed industry level. The first two digits designate the largest business sector, the third digit designates the subsector, the fourth digit designates the industry group, and the fifth digit designates particular industries. The last digit designates national industry types.

"NAAQS" means the National Ambient Air Quality Standards contained in 40 CFR Part 50.

"National Emission Standards for Hazardous Air Pollutants" means the federal emission standards contained in 40 CFR Parts 61 and 63.

"Necessary preconstruction approvals or permits" means those permits or approvals required pursuant to federal air quality control laws and regulations, chapter 342B, HRS, and air quality control rules adopted pursuant to chapter 342B.

"New covered source" means a covered source that commenced construction or modification on or after the effective date of this chapter.

"New noncovered source" means a noncovered source that commenced construction or modification on or after the effective date of this chapter.

"No detectable emissions" means less than 500 ppm above background levels, as measured by a detection

instrument in accordance with Method 21 in Appendix A of 40 CFR Part 60.

"Noncovered source" means a stationary source constructed, modified, or relocated after March 20, 1972, that is not a covered source.

"Nonroad engine" means:

- (1) Except as discussed in paragraph (2) of this definition, an internal combustion engine that meets any of the following criteria:
 - (A) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).
 - (B) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).
 - (C) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
- (2) An internal combustion engine is not a nonroad engine if it meets any of the following criteria:
 - (A) The engine is used to propel a motor vehicle, an aircraft, or equipment used solely for competition.
 - (B) The engine is regulated under 40 CFR Part 60, or otherwise regulated by a federal New Source Performance Standard promulgated under section 111 of the Clean Air Act (42 U.S.C. 7411).
 - (C) The engine otherwise included in subparagraph (1)(C) of this definition remains or will remain at a location for

more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. See 40 CFR Section 1068.31 for provisions that apply if the engine is removed from the location.

"Opacity" means a condition which renders material partially or wholly impervious to rays of light and causes obstruction of an observer's view.

"Owner or operator" means a person who owns, leases, operates, controls, or supervises a stationary source.

"Particulate matter" means any material, except water in uncombined form, that is or has been airborne and exists as a liquid or a solid at standard conditions.

"Permit" means written authorization from the director to construct, modify, relocate, or operate any regulated or hazardous air pollutant source. A permit authorizes the owner or operator to proceed with the construction, modification, relocation, or operation of a regulated or hazardous air pollutant source, and to cause or allow the emission of such air pollutants in a specified manner or amount, or to do any act not forbidden by chapter 342B, HRS, the Act,

rules adopted pursuant to chapter 342B, or regulations promulgated pursuant to the Act, but requiring review by the department.

"Permit renewal" means the process by which a permit is reissued at the end of its term.

"Person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, federal government agency, state, county, commission, political subdivision of the State, or, to the extent they are subject to this chapter, the United States or any interstate body.

"PM_{2.5}" means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers. Gaseous emissions which condense to form particulate matter at ambient temperatures shall be included.

"PM₁₀" means particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers. Gaseous emissions which condense to form particulate matter at ambient temperatures shall be included.

"Potential annual heat input" means the product of the maximum rated heat input capacity (megawatts or million BTU per hour) times 8760 hours per year.

"Potential to emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator and the director.

"Program approval" means approval granted by the Administrator pursuant to 40 CFR Part 70 for revisions to the State of Hawaii covered source permit program.

"PSD" means prevention of significant deterioration.

"Reconstruction" means the replacement of components at an existing stationary source to such an extent that the fixed capital cost of the new

components exceeds fifty percent of the fixed capital cost that would be required to construct a comparable entirely new stationary source.

"Regulated air pollutant" means:

- (1) Nitrogen oxides or any volatile organic compound;
- (2) Greenhouse gases;
- (3) Any air pollutant for which a national or state ambient air quality standard has been promulgated;
- (4) Any air pollutant that is subject to any standard adopted pursuant to chapter 342B, HRS, or promulgated pursuant to Section 111 of the Act;
- (5) Any Class I or II substance subject to a standard promulgated pursuant to or established by Title VI of the Act; or
- (6) Any air pollutant subject to a standard promulgated pursuant to Section 112 or other requirements established pursuant to Section 112 of the Act, including Sections 112(g), (j), and (r) of the Act, including:
 - (A) Any air pollutant subject to requirements of Section 112(j) of the Act. If the Administrator does not promulgate a standard by the date established pursuant to Section 112(e) of the Act, any air pollutant for which a subject source would be major shall be considered a regulated air pollutant on the date eighteen months after the applicable date established pursuant to Section 112(e) of the Act; and
 - (B) Any air pollutant for which the requirements of Section 112(g)(2) of the Act have been met, but only with respect to the individual source subject to Section 112(g)(2) requirements.

"Responsible official" means:

- (1) For a corporation: a president, secretary, treasurer, or vice-president of the

corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or an authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

- (A) The facilities employ more than two hundred fifty persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (B) The delegation of authority to such representative is approved in advance by the director;
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively; or
 - (3) For a municipality, state, federal, or other public agency: a principal executive officer, ranking elected official, or an authorized representative as approved by the director. For the purposes of this chapter, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

"Risk assessment" means the process of determining the potential adverse health effects of human exposure to environmental hazards. The process includes hazard identification, dose-response assessment, exposure assessment, and risk characterization by quantifying the magnitude of the public health problem that results from the hazard.

"SICC" means Standard Industrial Classification Code.

"Significant" means in reference to a net emissions increase or the potential of a source to emit:

- (1) A rate of emissions that would equal or exceed any of the following pollutant emission rates:
 - (A) Carbon monoxide: one hundred tpy;
 - (B) Nitrogen oxides: forty tpy;
 - (C) Sulfur dioxide: forty tpy;
 - (D) Particulate matter: a total of twenty-five tpy of particulate matter of all sizes;
 - (E) PM₁₀: fifteen tpy;
 - (F) PM_{2.5}: ten tpy of direct PM_{2.5}, forty tpy of sulfur dioxide, forty tpy of nitrogen oxide;
 - (G) Ozone: forty tpy of volatile organic compounds or nitrogen oxides;
 - (H) Greenhouse Gases: forty thousand tpy CO₂e; or
 - (I) Lead: 0.6 tpy.

"Smoke" means the gaseous products of burning carbonaceous materials made visible by the presence of small particles of carbon.

"Source" means property, real or personal, which emits or may emit any air pollutant.

"Stack" means a point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.

"Standard Industrial Classification Code" means Major Group Number, Industry Group Number, or Industry Number as described in the Standard Industrial Classification Manual, 1987.

"Standards of Performance for New Stationary Sources" means the federal emission standards contained in 40 CFR Part 60.

"Stationary source" means any piece of equipment or any activity at a building, structure, facility, or installation that emits or may emit any air pollutant.

"Subject to regulation" means for any pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable

regulation codified in 40 CFR Subchapter C of Chapter I, Air Programs, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity.

"Submerged fill pipe" means a fill pipe the discharged opening of which is entirely submerged when the liquid level is six inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean a fill pipe the discharge opening of which is eighteen inches above the bottom of the tank.

"Tpy" means tons per year.

"Valid covered source permit" or "valid noncovered source permit" means a covered or noncovered source permit that has not been canceled pursuant to section 11-60.1-9, has not been terminated or suspended pursuant to section 11-60.1-10, and has not expired or which remains in effect pursuant to subsection 11-60.1-82(b), or 11-60.1-62(b).

"Volatile organic compound" means a compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other than those determined to have negligible photochemical reactivity as listed in the definition of "volatile organic compound" in 40 CFR §51.100.

"Volatile organic compound water separator" means a tank, box, sump, or other container which is primarily designed to separate and recover volatile organic compounds from water. Petroleum storage tanks from which water incidental to the process is periodically removed are not considered volatile organic compound water separators. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416; 40

C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

§11-60.1-2 Prohibition of air pollution. No person, including any public body, shall engage in any activity which causes air pollution or causes or allows the emission of any regulated or hazardous air pollutant without first securing approval in writing from the director. The written approval from the director shall not release any person from compliance with any other applicable statutes, local laws, regulations, or ordinances. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-11; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-11; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-2 is based substantially upon §11-60-2. [Eff 11/29/82; am, ren §11-60-2 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-2.5 Credible evidence. Nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence information, relevant to whether a source would have been in compliance with any applicable requirements if the appropriate performance or compliance test or procedure had been performed. [Eff and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

§11-60.1-3 General conditions for considering applications. The director shall approve an application for a noncovered or covered source permit if the applicant can show to the satisfaction of the director that all applicable provisions of this chapter will be complied with, including, as applicable:

- (1) The maintenance and attainment of any NAAQS and any state ambient air quality standard;
- (2) General prohibitions pursuant to subchapter 2;
- (3) Requirements for noncovered and covered sources pursuant to subchapters 4 and 5;
- (4) Applicable Standards of Performance for New Stationary Sources (40 CFR Part 60), National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61), National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63), or any other federal standard or other requirement established pursuant to the Act.
- (5) Prevention of significant deterioration review requirements pursuant to subchapter 7;
- (6) Applicable standards of performance for stationary sources pursuant to subchapter 8; and
- (7) Requirements for stationary sources of hazardous air pollutants and greenhouse gases pursuant to subchapters 9 and 11, respectively. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-4 Certification. Every application form, report, compliance plan, or compliance certification submitted pursuant to this chapter shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required pursuant to this chapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-5 Permit conditions. In addition to the conditions authorized in sections 11-60.1-68 and 11-60.1-90, the director may impose more restrictive conditions in a noncovered or covered source permit to further limit the air pollutants and operation of the source. In determining whether to impose more restrictive conditions, the director shall consider the relevant circumstances of each individual case, including the availability of a reasonable control technology, cleaner fuels, or a less polluting operating process; the consideration of the existing air quality and the resulting degradation; the protection of the public health, welfare and safety; and any information, assumptions, limitations, or statements made in conjunction with a permit application. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-5 is based substantially upon §11-60-47. [Eff 11/29/82; am, ren §11-60-47 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-6

§11-60.1-6 Holding of permit. (a) Each noncovered or covered source permit, or a copy thereof, shall be maintained at or near the stationary source for which the noncovered or covered source permit was issued and shall be made available for inspection upon the director's request.

(b) No person shall willfully deface, alter, forge, counterfeit, or falsify a noncovered or covered source permit. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-6 is based substantially upon §11-60-49. [Eff 11/29/82; am, ren §11-60-49 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-7 Transfer of permit. (a) Except as provided in sections 11-60.1-69 and 11-60.1-91, all noncovered and covered source permits issued pursuant to this chapter shall not be transferable, whether by operation of law or otherwise, either from one location to another or from one piece of equipment to another.

(b) All noncovered and covered source permits issued pursuant to this chapter shall not be transferable, whether by operation of law or otherwise, from one person to another without the approval of the director. A request for transfer from one person to another shall be made on a permit transfer application form furnished by the director. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-7 is based substantially upon §11-60-50. [Eff 11/29/82; am, ren §11-60-50 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-8 Reporting discontinuance. Within thirty days of permanent discontinuance of the construction, modification, relocation, or operation of any noncovered or covered source, the discontinuance shall be reported in writing to the director by a responsible official of the source. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-8 is based substantially upon §11-60-54. [Eff 11/29/82; am, ren §11-60-47 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-9 Cancellation of a noncovered or covered source permit. (a) If construction authorized by a noncovered source permit is not commenced within twelve months after the noncovered source permit takes effect, is discontinued for a period of twelve months or more, or is not completed within a reasonable time, the noncovered source permit shall become invalid with respect to the authorized construction.

(b) If construction authorized by a covered source permit is not commenced within eighteen months after the covered source permit takes effect, is discontinued for a period of eighteen months or more, or is not completed within a reasonable time, the covered source permit shall become invalid with respect to the authorized construction.

(c) Subsections (a) and (b) shall not apply to phased construction projects. Instead, each phase

shall commence construction within eighteen months for a covered source, or twelve months for a noncovered source, of the projected and approved commencement dates in the permit.

(d) The director may extend the specified periods upon a satisfactory showing that an extension is justified. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-9 is based substantially upon §11-60-52. [Eff 11/29/82; am, ren §11-60-52 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-10 Permit termination, suspension, reopening, and amendment. (a) The director, at the director's sole discretion or on the petition of any person, may terminate, suspend, reopen, or amend any permit if, after affording the permittee an opportunity for a hearing in accordance with chapter 91, HRS, the director determines that:

- (1) The permit contains a material mistake made in establishing the emissions limitations or other requirements of the permit;
- (2) Permit action is required to assure compliance with the requirements of the Act; chapter 342B, HRS; and this chapter;
- (3) Permit action is required to address additional requirements of the Act; chapter 342B, HRS; and this chapter;
- (4) There is a violation of any condition of the permit;
- (5) The permit was obtained by misrepresentation or failure to disclose fully all relevant facts;
- (6) The source is constructed or operated not in accordance with the application for the noncovered or covered source permit and any

information submitted as part of the application;

- (7) There is a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- (8) More frequent monitoring or reporting by the permittee is required; or
- (9) Such is in the public interest, as determined pursuant to section 342B-27, HRS.

(b) The provisions of this section are supplemental to the provisions of sections 11-60.1-72 and 11-60.1-98. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-10 is based substantially upon §11-60-53. [Eff 11/29/82; am, ren §11-60-53 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-11 Sampling, testing, and reporting methods. (a) All sampling and testing shall be made and the results calculated in accordance with the reference methods specified by EPA, or in the absence of an EPA reference method, test procedures approved by the director. All tests shall be made under the direction of persons knowledgeable in the field of air emissions measurement testing.

(b) The department may conduct tests of emissions of air pollutants from any source. Upon request of the director, an owner or operator of a stationary source may be required to conduct tests of emissions of air pollutants at the owner or operator's expense. The owner or operator of the stationary source to be tested shall provide necessary ports in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary

for proper determination of the emissions of air pollutants.

(c) The director may require the owner or operator of any stationary source to maintain files on information concerning pertinent process and material flow, fuels used, nature and amount and time periods or durations of emissions, or any other information as may be deemed necessary by the director to determine whether the stationary source complies with applicable emission limitations, NAAQS, any state ambient air quality standard, or other provisions of this chapter in a permanent form suitable for inspection or in a manner authorized by the director.

(d) The information recorded shall be summarized and reported to the director as specified in the permit and in accordance with any requirement of this chapter. Recording periods shall be January 1 to June 30 and July 1 to December 31, or any other period specified by the director, except the initial recording period shall commence on the date the director issues the notification of the recordkeeping requirements. The director may require the owner or operator to submit any reported summary to the Administrator.

(e) Information recorded by the owner or operator of a stationary source and copies of the summarizing reports submitted to the director shall be retained by the owner or operator for a specified time period from the date on which the information is recorded or the pertinent report is submitted. The specified time period shall be as required in sections 11-60.1-68(5)(F) or 11-60.1-90(7)(H) or as identified within an applicable requirement for the stationary source.

(f) Owners or operators of stationary sources shall correlate applicable emission limitations and other requirements within the report. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-11 is based substantially upon §11-60-15. [Eff 11/29/82; am and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-12 Air quality models. (a) All required estimates of ambient concentrations shall be based on the applicable air quality models, data bases, and other requirements specified in 40 CFR Part 51, Appendix W.

(b) Where an air quality model specified in 40 CFR Part 51, Appendix W is inappropriate, the model may be modified or another model substituted on written request to and written approval from the director. The director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment, on all proposed modifications or substitutions of an air quality model. Written approval from the director, and EPA through the director shall be obtained for any modification or substitution. Guidelines identified in 40 CFR Part 51, Appendix W for substituting or using alternate models shall be used in determining the acceptability of a substitute or alternate model. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-12 is based substantially upon §11-60-17. [Eff and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-13 Operations of monitoring stations. The EPA monitoring requirements of Appendices A, C, D and E to 40 CFR Part 58, "Ambient Air Quality Surveillance," shall be met as a minimum during the

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operation of any monitoring stations required by the director or this chapter. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-13 is based substantially upon §11-60-18. [Eff and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-14 Public access to information. (a)

Except as provided in subsection (b), the following information shall be considered government records and as such shall be available for public inspection pursuant to chapter 92F, HRS, unless access is restricted or closed by law:

- (1) All permit applications;
- (2) All supporting information for permit applications;
- (3) Compliance plans and schedules;
- (4) Reports and results associated with performance tests and continuous emission monitors;
- (5) Ambient air monitoring data and emissions inventory data;
- (6) Certifications;
- (7) Any other information submitted to the department pursuant to the noncovered and covered source permit program;
- (8) Proposed GHG emission reduction plans;
- (9) Permits; and
- (10) Public comments or testimonies received during any public comment period or public hearing.

(b) Any owner or operator of an existing or proposed noncovered or covered source may request confidential treatment of specific information, including information concerning secret processes or methods of manufacture, by submitting a written

request to the director at the time of submission, and clearly identifying the specific information that is to be accorded confidential treatment. With respect to each item of confidential information, the owner or operator requesting that it be designated as confidential shall provide the following documentation:

- (1) How each item of information concerns secret processes, secret methods of manufacture, or is determined to be confidential pursuant to chapter 92F, HRS;
- (2) Who has access to each item of information;
- (3) What steps have been taken to protect the secrecy of each item of information; and
- (4) Why it is believed each item of information must be accorded confidential treatment and the anticipated prejudice should disclosure be made.

(c) Any information submitted to the department without a request for confidentiality in accordance with this section shall be considered a public record.

(d) Upon a satisfactory showing to the director by any owner or operator that records, reports, or information, or particular part thereof, to which the director has access pursuant to this chapter, contain information of a confidential nature, including information concerning secret processes or methods of manufacture, these records, reports, or information shall be kept confidential except that such records, reports, or information may be disclosed to other state and federal officers or employees concerned with carrying out this chapter or when relevant in any proceeding pursuant to this chapter. If required by EPA, all records, reports, and information determined by the owner or operator to be confidential shall be submitted directly to EPA. Neither the contents of the permit nor emissions data shall be entitled to confidentiality protection.

(e) Records, reports, or information for which confidentiality has been claimed may be disclosed only after the requirements of section 342B-31(d), HRS, have been met and the person requesting

confidentiality has had an opportunity to obtain judicial review pursuant to subsection (f).

(f) Any person who has claimed confidentiality for records, reports, or other information and whose claim was denied by the director may obtain administrative review and subsequent judicial review of the denial pursuant to chapter 91, HRS. Records which are the subject of a judicial review shall not be released until the judicial review is complete and only if the court authorizes such release.

(g) All requests for public records shall be in writing, shall be addressed to the director, and shall identify or describe the character of the requested record. Upon approval by the director, the requested public record shall be available to the requestor for inspection and copying during established office hours. The director shall charge the requester a reasonable cost for reproduction of any public record, but not less than twenty-five cents per page, sheet, or fraction thereof. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-15 Reporting of equipment shutdown.

(a) In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the director at least twenty-four hours prior to the planned shutdown. The prior notice shall include:

- (1) Identification of the specific equipment to be taken out of service as well as its location and permit number;
- (2) The expected length of time that the air pollution control equipment will be out of service;
- (3) The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;

- (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
 - (5) The reasons why it would be impossible or impractical to shut down the source operation during the maintenance period.
- (b) The submittal of the notice shall not be a defense to an enforcement action. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-15 is based substantially upon §11-60-14. [Eff 11/29/82; am, ren §11-60-14 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-16 Prompt reporting of deviations. (a)

~~[Except for emergencies which result in noncompliance with any technology-based emission limitation pursuant to section 11-60.1-16.5, i]~~

In the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of this chapter or a permit, the owner or operator shall immediately notify the department of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. (b) The owner or operator shall provide the following information in writing within five working days of the notification:

- (1) Identification of each affected emission point and each emission limit exceeded;
- (2) Magnitude of each excess emission;
- (3) Time and duration of each excess emission;
- (4) Identity of the process or control equipment causing each excess emission;

- (5) Cause and nature of each excess emission;
- (6) Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the NAAQS and state ambient air quality standards;
- (7) Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
- (8) A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(c) The submittal of the notice shall not be a defense to an enforcement action. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

~~§11-60.1-16.5 Emergency provision. (a) An emergency constitutes an affirmative defense to any action brought for noncompliance with any technology-based emission limitation, if it can be demonstrated to the director through properly signed, contemporaneous operating logs, or other relevant evidence that:~~

- ~~(1) An emergency occurred and the owner or operator of the source can identify the cause or causes of the emergency;~~
- ~~(2) The permitted facility was at the time being properly operated;~~
- ~~(3) During the period of the emergency, the owner or operator of the source took all reasonable steps to minimize emission levels that exceeded the emission limitations or~~

~~other requirements in the covered or noncovered source permit; and~~

~~(4) The owner or operator of the source submitted written notice of the emergency to the director within two working days of the time when emission limitations were exceeded due to the emergency, provided that the notice contained a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.~~

~~(b) In any proceedings for enforcement action, the owner or operator of the source seeking to establish the occurrence of an emergency has the burden of proof.~~

~~(c) This emergency provision is in addition to any emergency or upset provision in any applicable requirement. [Eff and comp 9/15/01; comp 11/14/03, comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)~~

~~Historical note: §11-60.1-16.5 is based substantially upon §11-60.1-97. [Eff 11/26/93; comp 10/26/98; R 9/15/01]]~~

§11-60.1-17 Prevention of air pollution

emergency episodes. (a) This section is designed to prevent the excessive buildup of air contaminants during air pollution episodes, thereby preventing the occurrence of any emergency due to the effects of these contaminants on the public health.

(b) Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the director determines that the accumulation of air contaminants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a threat to the health of the public. In making this determination, the director

shall be guided by the criteria set forth in subsections (c) to (g).

(c) If the national weather service issues an atmospheric stagnation advisory or if an equivalent local forecast of stagnant atmospheric conditions is issued, the department shall survey its monitoring stations to determine whether alert, warning, or emergency levels have occurred or are likely to occur.

(d) The alert level is that concentration of pollutants at which first stage control action is to begin. An alert shall be declared, health advisories issued, and source activities curtailed as ordered by the director when any one of the following levels is reached:

- (1) SO₂ - eight hundred µg/m³ (0.3 ppm), twenty-four-hour average;
- (2) PM₁₀ - three hundred fifty µg/m³, twenty-four-hour average;
- (3) SO₂ and particulate matter combined - product of SO₂, µg/m³, twenty-four-hour average and particulate matter, µg/m³, twenty-four-hour average equal to 65 X 10³;
- (4) CO - seventeen mg/m³ (fifteen ppm), eight-hour average;
- (5) Ozone - four hundred µg/m³ (0.2 ppm), one-hour average; or
- (6) NO₂ - one thousand one hundred thirty µg/m³ (0.6 ppm), one-hour average; two hundred eighty-two µg/m³ (0.15 ppm), twenty-four-hour average;

and meteorological conditions are such that this condition can be expected to continue for twelve or more hours.

(e) The warning level indicates that air quality is continuing to degrade and that additional abatement actions are necessary. A warning shall be declared, health advisories issued, and source activities curtailed or terminated as ordered by the director when any one of the following levels is reached:

- (1) SO₂ - one thousand six hundred µg/m³ (0.6 ppm), twenty-four-hour average;

- (2) PM₁₀ - four hundred twenty µg/m³, twenty-four-hour average;
- (3) SO₂ and particulate matter combined - product of SO₂, µg/m³, twenty-four-hour average and particulate matter, µg/m³, twenty-four-hour average equal to 261 X 10³;
- (4) CO - thirty-four mg/m³ (thirty ppm), eight-hour average;
- (5) Ozone - eight hundred µg/m³ (0.4 ppm), one-hour average; or
- (6) NO₂ - two thousand two hundred sixty µg/m³ (1.2 ppm), one-hour average; five hundred sixty-five µg/m³ (0.3 ppm), twenty-four-hour average;

and meteorological conditions are such that this condition can be expected to continue for twelve or more hours.

(f) The emergency level indicates that air quality may have an impact on public health. An emergency shall be declared, health advisories issued, source activities terminated as ordered by the director, and the public evacuated from the affected area if so recommended by the director, civil defense, or the police department when the warning level for a pollutant has been exceeded and:

- (1) The concentrations of the pollutant are continuing to increase;
- (2) The director determines that, because of meteorological or other facts, the concentrations will continue to increase; or
- (3) When one of the following levels is reached:
 - (A) SO₂ - two thousand one hundred µg/m³ (0.8 ppm), twenty-four-hour average;
 - (B) PM₁₀ - five hundred µg/m³, twenty-four-hour average; or
 - (C) SO₂ and particulate matter combined - product of SO₂, µg/m³, twenty-four-hour average and particulate matter, µg/m³, twenty-four-hour average equal to 393 X 10³;
 - (D) CO - forty-six mg/m³ (forty ppm), eight-hour average;

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- (E) Ozone - one thousand $\mu\text{g}/\text{m}^3$ (0.5 ppm), one-hour average; or
- (F) NO_2 - three thousand $\mu\text{g}/\text{m}^3$ (1.6 ppm), one-hour average; seven hundred fifty $\mu\text{g}/\text{m}^3$ (0.4 ppm), twenty-four-hour average.

(g) Once declared, any episode level reached by application of these criteria shall remain in effect until the criteria for that level are no longer met. At that time, the next lower episode level shall be assumed. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-17 is based substantially upon §11-60-19. [Eff 11/29/82; am, ren §11-60-19 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-18 Variances. (a) Variances and variance applications shall comply with section 342B-14, HRS, except that no variance shall prevent or interfere with the maintenance or attainment of NAAQS. Any application for a variance shall include a calculation and description of any change in emissions and the expected ambient air quality concentrations.

(b) Under no circumstances shall a variance from any federal regulations or covered source federally enforceable permit terms and conditions be granted. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-18 is based substantially upon §11-60-20. [Eff 11/29/82; am, ren §11-60-20 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-19 Penalties and remedies. Any person who violates any provision of this chapter, any term or condition of a permit, or any term or condition of an agricultural burning permit shall be subject to the penalties and remedies provided for in sections 342B-42, 342B-44, 342B-47, and 342B-48, HRS. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-19 is based substantially upon §11-60-21. [Eff 11/29/82; am, ren §11-60-21 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-20 Severability. If any provision of this chapter or its application to any person or circumstance is held invalid, the application of such provision to other persons or circumstances and the remainder of this chapter shall not be affected thereby. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-20 is based substantially upon §11-60-22. [Eff 11/29/82; am, ren §11-60-22 and comp 4/14/86; comp 6/29/92; R 11/26/93]

SUBCHAPTER 2

GENERAL PROHIBITIONS

§11-60.1-31 Applicability. (a) All owners or operators of an air pollution source are subject to the requirements of this subchapter, whether or not

the source is required to obtain a noncovered or covered source permit.

(b) In the event any federal or state laws, rules, or regulations are in conflict with the provisions of this subchapter, the most stringent requirement shall apply.

(c) This section shall apply to all federal and state laws, rules, or regulations implemented through this chapter. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-32 Visible emissions. (a) Visible emission restrictions for stationary sources which commenced construction or were in operation before March 21, 1972, shall be as follows:

- (1) No person shall cause or permit the emission of visible air pollutants of a density equal to or darker than forty percent opacity, except as provided in paragraph (2);
- (2) During start-up, shutdown, or when a malfunction of equipment occurs, a person may discharge into the atmosphere from any single source of emission, for a period aggregating not more than six minutes in any sixty minutes, air pollutants of a density not darker than sixty percent opacity.

(b) Visible emission restrictions for stationary sources which commenced construction, modification, or relocation after March 20, 1972, shall be as follows:

- (1) No person shall cause or permit the emission of visible air pollutants of a density equal to or darker than twenty percent opacity, except as provided in paragraph (2);
- (2) During start-up, shutdown, or when a malfunction of equipment occurs, a person may discharge into the atmosphere from any single source of emission, for a period

aggregating not more than six minutes in any sixty minutes, air pollutants of a density not darker than sixty percent opacity.

(c) Compliance with visible emission requirements shall be determined by evaluating opacity of emissions pursuant to 40 CFR Part 60, Appendix A, Method 9, other EPA approved methods, or any other credible evidence.

(d) Emissions of uncombined water, such as water vapor, are exempt from the provisions of subsections (a) and (b), and do not constitute a violation of this section. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-32 is based substantially upon §11-60-3. [Eff 11/29/82; am, ren §11-60-3 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-33 Fugitive dust. (a) No person shall cause or permit visible fugitive dust to become airborne without taking reasonable precautions. Examples of reasonable precautions are:

- (1) Use of water or suitable chemicals for control of fugitive dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- (2) Application of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which may result in fugitive dust;
- (3) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Reasonable containment methods shall be employed during sandblasting or other similar operations;

- (4) Covering all moving, open-bodied trucks transporting materials which may result in fugitive dust;
- (5) Conducting agricultural operations, such as tilling of land and the application of fertilizers, in such manner as to reasonably minimize fugitive dust;
- (6) Maintenance of roadways in a clean manner; and
- (7) Prompt removal of earth or other materials from paved streets which have been transported there by trucking, earth-moving equipment, erosion, or other means.

(b) Except for persons engaged in agricultural operations or persons who are implementing the best practical operation or treatment, no person shall cause or permit the discharge of visible fugitive dust beyond the property lot line on which the fugitive dust originates.

(c) Except for persons engaged in agricultural operations, no person shall cause or permit visible fugitive dust emissions equal to or in excess of twenty percent opacity for more than twenty-four individual readings recorded during any one-hour period. Opacity observations shall be conducted in accordance with 40 CFR Part 51, Appendix M, Method 203B, "Visual Determination of Opacity of Emissions from Stationary Sources for Time-Exception Regulations." This rule shall be in addition to complying with paragraphs (a) and (b), including when reasonable precautions are applied and shall be applicable in all circumstances. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-33 is based substantially upon §11-60-5. [Eff 11/29/82; am, ren §11-60-5 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-34 Motor vehicles. (a) No person shall operate a gasoline-powered motor vehicle which emits visible smoke while upon streets, roads, or highways.

(b) No person shall operate a diesel-powered motor vehicle which emits visible smoke for a period of more than five consecutive seconds while upon streets, roads, or highways.

(c) No person shall cause, suffer, or allow any engine to be in operation while the motor vehicle is stationary at a loading zone, parking or servicing area, route terminal, or other off street areas, except:

- (1) During adjustment or repair of the engine at a garage or similar place of repair;
- (2) During operation of ready-mix trucks, cranes, hoists, and certain bulk carriers, or other auxiliary equipment built onto the vehicle or equipment that require power take-off from the engine, provided that there is no visible discharge of smoke and the equipment is being used and operated for the purposes as originally designed and intended. This exception shall not apply to operations of air conditioning equipment or systems;
- (3) During the loading or unloading of passengers, not to exceed three minutes; and
- (4) During the buildup of pressure at the start-up and cooling down at the closing down of the engine for a period of not more than three minutes.

(d) No person shall remove, dismantle, fail to maintain, or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or mechanism of a motor vehicle as required by the provisions of the Act except as permitted or authorized by law. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42

§11-60.1-34

U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-34 is based substantially upon §11-60-4. [Eff 11/29/82; am, ren §11-60-4 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-35 Incineration. (a) No person shall cause or permit the emissions of particulate matter to exceed 0.20 pounds per one hundred pounds (two grams per kilogram) of refuse charged from any incinerator.

(b) Compliance with particulate matter emissions requirements shall be determined by evaluating particulate matter emissions pursuant to 40 CFR Part 60, Appendix A-3, Method 5 or other EPA approved methods.

(c) All required emission tests shall be conducted at the maximum burning capacity of the incinerator.

(d) The burning capacity of an incinerator shall be the manufacturer's or designer's guaranteed maximum rate.

(e) For the purposes of this section, the total of the capacities of all furnaces within one system shall be considered as the incineration capacity. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-35 is based substantially upon §11-60-6. [Eff 11/29/82; am, ren §11-60-6 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-36 Biomass fuel burning boilers. (a) No person shall cause or permit the emissions of particulate matter from each biomass burning boiler

and its drier or driers in excess of 0.40 pounds per one hundred pounds (four grams per kilogram) of biomass as burned.

(b) Compliance with particulate matter emissions requirements shall be determined by evaluating particulate matter emissions pursuant to 40 CFR Part 60, Appendix A-3, Method 5 or other EPA approved methods. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-36 is based substantially upon §11-60-7. [Eff 11/29/82; am, ren §11-60-7 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-37 Process industries. (a) No person shall cause or permit the emission of particulate matter in any one hour from any stack or stacks, except for incinerators and biomass fuel burning boilers, in excess of the amount determined by the equation $E = 4.10 p^{0.67}$, where E = rate of emission in pounds per hour and p = process weight rate in tons per hour, except that no rate of emissions shall exceed forty pounds per hour regardless of the process weight rate.

(b) Rate of emissions shall be determined by evaluating particulate matter emissions pursuant to 40 CFR Part 60, Appendix A-3, Method 5 or other EPA approved methods.

(c) Process weight per hour is the total weight of all materials introduced into any specific process that may cause any emission of particulate matter through any stack or stacks. Solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and combustion air shall not. For a cyclical or batch operation, the process weight per hour shall be derived by dividing the total process weight by the number of hours in one complete

operation from the beginning of any given process to the completion thereof, including any time during which the equipment is idle. For a continuous operation, the process weight per hour shall be derived for a typical period of time by the number of hours of the period.

(d) Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation, the interpretation that results in the minimum value for the allowable emission shall apply.

(e) For purposes of this section, a process is any method, reaction, or operation whereby materials introduced into the process undergo physical or chemical change. A specific process is one which includes all of the equipment and facilities necessary for the completion of the transformation of the materials to produce a physical or chemical change. There may be several specific processes in series necessary to the manufacture of a product. However, where there are parallel series of specific processes, the similar parallel specific processes shall be considered as a single specific process. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24]
(Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)
(Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-37 is based substantially upon §11-60-8. [Eff 11/29/82; am, ren §11-60-8 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-38 Sulfur oxides from fuel combustion.

(a) No person shall burn any fuel containing in excess of two percent sulfur by weight.

(b) No person shall burn any fuel containing in excess of 0.50 percent sulfur by weight in any fossil fuel fired power and steam generating unit having a

power generating output in excess of twenty-five megawatts or a heat input greater than two hundred fifty million BTU per hour.

(c) Compliance with sulfur by weight requirements shall be determined by evaluating sulfur by weight pursuant to *American Society for Testing and Materials* (ASTM) methods.

(1) For liquid fuels: ASTM D129-00(2005) Standard Test Method for Sulfur in Petroleum Products (General Bomb Method); D2622-05 Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry; D4294-03 Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry; D5453-05 Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence; or other EPA approved methods.

(2) For gaseous fuels: ASTM D1072-90(1999) Standard Test Method for Total Sulfur in Fuel Gases; D3246-05 Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry; D4810-88(1999) Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length-of-Stain Detector Tubes; D6228-98(2003), D6667-01 or Gas Processors Association Standard 2377-86 Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length-of-Stain Tubes; or other EPA approved methods.

(d) The use of fuels prohibited in subsections (a) and (b) may be allowed at the director's sole discretion if it can be demonstrated that the use of these fuels will result in equivalent or lower emission rates of oxides of sulfur. Compliance with oxides of sulfur emissions requirements shall be determined by evaluating oxides of sulfur emissions pursuant to 40 CFR Part 60, Appendix A-4, Method 8 or other EPA approved methods. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp

§11-60.1-38

1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth:
HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp:
HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-38 is based substantially
upon §11-60-9. [Eff 11/29/82; am, ren §11-60-9 and
comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-39 Storage of volatile organic compounds. (a) Except as provided in subsection (c), no person shall place, store, or hold in any stationary tank, reservoir, or other container of more than a forty thousand-gallon (one hundred fifty thousand-liter) capacity any volatile organic compound which, as stored, has a true vapor pressure equal to or greater than 1.5 pounds per square inch absolute unless the tank, reservoir, or other container is pressurized and capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

- (1) A floating roof, consisting of a pontoon type roof, double deck type roof or internal floating cover roof, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of eleven pounds per square inch absolute (five hundred sixty-eight millimeters of mercury) or greater under actual storage conditions. All tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place;
- (2) A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged, and a vapor disposal

system capable of processing such volatile organic compound vapors and gases to prevent their emission to the atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place; or

- (3) Other equipment or means of equal efficiency for purposes of air pollution control may be approved by the director after demonstrating equivalence to the director by one of the following methods:

- (A) an actual emissions test in a full size or scale sealed tank facility which accurately collects and measures all hydrocarbon emissions associated with a given closure device, and which accurately simulates other emission variables, such as temperature, barometric pressure and wind. The test facility shall be subject to prior approval by the director, or
- (B) a pressure leak test, engineering evaluation or other means where the director determines that the same is an accurate method of determining equivalence.

(b) Compliance with true vapor pressure requirements shall be determined by evaluating vapor pressure pursuant to ASTM Method D323-82 or other EPA approved methods.

(c) No person shall place, store, or hold in any new stationary storage tank, reservoir, or other container of more than a two hundred fifty-gallon (nine hundred fifty-liter) capacity any volatile organic compound unless such tank, reservoir, or other container is equipped with a permanent submerged fill pipe, is a pressure tank as described in subsection (a), or is fitted with a vapor recovery system as described in subsection (a)(2).

(d) Underground tanks shall be exempted from the requirements of subsection (a) if the total volume of volatile organic compounds added to and taken from a

tank annually does not exceed twice the volume of the tank. Any person claiming this exemption shall be responsible for maintaining records which substantiate this claim and make them available to the director upon request. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-39 is based substantially upon §11-60-10. [Eff 11/29/82; am, ren §11-60-10 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-40 Volatile organic compound water separation. (a) No person shall use any single or multiple compartment volatile organic compound water separator which receives effluent water containing two hundred gallons (seven hundred sixty liters) or more of any volatile organic compound a day from any equipment that is processing, refining, treating, storing, or handling volatile organic compounds having a Reid vapor pressure of 0.5 pounds per square inch or greater unless such compartment is equipped with a properly installed vapor loss control device described as follows and which is in good working order, and in operation:

- (1) A container having all openings sealed which totally encloses the liquid content. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place;
- (2) A container equipped with a floating roof, consisting of a pontoon type roof, double deck-type roof, or internal floating cover roof, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices shall be

- gas-tight except when gauging or sampling is taking place;
- (3) A container equipped with a vapor recovery system consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged, and a vapor disposal system capable of processing such volatile organic compound vapors and gases to prevent their emission to the atmosphere. All container gauging and sampling devices shall be gas-tight except when gauging and sampling is taking place; or
 - (4) A container having other equipment of equal efficiency for purposes of air pollution control may be approved by the director after demonstrating equivalence to the director by one of the following methods:
 - (A) an actual emissions test in a full size or scale sealed tank facility which accurately collects and measures all hydrocarbon emissions associated with a given closure device, and which accurately simulates other emission variables, such as temperature, barometric pressure and wind. The test facility shall be subject to prior approval by the director, or
 - (B) a pressure leak test, engineering evaluation or other means where the director determines that the same is an accurate method of determining equivalence.

(b) Compliance with Reid vapor pressure requirements shall be determined by evaluating Reid vapor pressure pursuant to ASTM Method D323-99 or other EPA approved methods. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-40

Historical note: §11-60.1-40 is based substantially upon §11-60-11. [Eff 11/29/82; am, ren §11-60-11 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-41 Pump and compressor requirements.

(a) All pumps and compressors handling volatile organic compounds having a Reid vapor pressure of 1.5 pounds per square inch or greater which can be fitted with mechanical seals shall have mechanical seals or other equipment of equal efficiency for purposes of air pollution control as may be approved by the director. Pumps and compressors not capable of being fitted with mechanical seals, such as reciprocating pumps, shall be fitted with the best sealing system available for air pollution control given the particular design of pump or compressor as may be approved by the director. In either case, all pumps and compressors shall be vapor tight where the reading on a portable hydrocarbon meter is less than 500 parts per million (ppm), expressed as methane, above background.

(b) Compliance with Reid vapor pressure requirements shall be determined by evaluating Reid vapor pressure pursuant to ASTM Method D323-99 or other EPA approved methods.

(c) Compliance with vapor tight requirements shall be determined by evaluating vapor tightness pursuant to EPA Method 21 or other EPA approved methods. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-41 is based substantially upon §11-60-12. [Eff 11/29/82; am, ren §11-60-12 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-42 Waste gas disposal. (a) No person shall cause or permit the emissions of gas streams containing volatile organic compounds from a vapor blowdown system unless these gases are burned by smokeless flares, or abated by an equally effective control device as approved by the director.

(b) Compliance with smokeless flare or equally effective control device requirements shall be in accordance with section 11-60.1-32. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-42 is based substantially upon §11-60-13. [Eff 11/29/82; am, ren §11-60-13 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-43 All operation and maintenance of permitted source. Permittees shall, at all times, operate and maintain their permitted source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions, at a minimum, to the levels required by their permits.

Determination of whether such operation and maintenance procedures are being used will be based on information available to the director, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Eff and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

SUBCHAPTER 3

OPEN BURNING

§11-60.1-51 Definitions. As used in this subchapter:

"Agricultural burning" means the use of open burning in agricultural operations, forest management, or range improvements.

"Agricultural operation" means a bona fide agricultural, silvicultural, or aquacultural activity for the purpose of making a profit by raising, harvesting and selling crops, or by raising and selling livestock or poultry, or produce thereof. Agricultural operation also means activities conducted by non-profit agricultural research organizations and by educational institutions for the purpose of providing agricultural instruction. The burning of animal carcasses is not an agricultural operation.

"Attended" means to be physically present at the immediate location of the fire, to actively and physically look after, or to actively and physically take charge of.

"Auxiliary fuels" means butane, propane, pipeline quality natural gas, liquefied petroleum gas, or a petroleum liquid having an American Petroleum Institute gravity of at least 30.

"Aquacultural" means dealing with the cultivation of the natural produce of water.

"Clearing of land" means the removal of non-agricultural waste or vegetation from land not currently being utilized for agricultural operations, or not associated with forest management or range improvement.

"Cooking fuel" means any fuel that is processed, marketed, and sold by commercial establishments specifically for the cooking of food.

"District" means a geographic area, as designated by the director, to distinguish appropriate air basins for the purpose of smoke management.

"Forest management" means wildland vegetation management using prescribed burning procedures which have been approved by the forestry division or responsible federal agency prior to the commencement of any burn and which are being conducted by a public

agency or through a cooperative agreement involving a public agency. The fire department may be consulted for advice and guidance as part of the prescribed burning procedure.

"Forestry division" means the division of forestry and wildlife of the department of land and natural resources of the State of Hawaii.

"No-burn period" means any period in which agricultural burning or conditionally allowed open burning in subsection 11-60.1-52(e) is prohibited by the director as provided in section 11-60.1-55.

"Open burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the ambient air without passing through an adequate stack or flare.

"Range" means an extensive area of open land on which domestic livestock or wild animals wander and graze.

"Range improvement" means physical modification or treatment of rangeland which is designed to: improve production of forages; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; and otherwise restore, protect, and improve the conditions of the rangeland ecosystems to benefit livestock, horses, and fish and wildlife.

"Recreational fire" means a fire used for social, cultural, or other activities including, but not limited to, campfires, bonfires, hand-warming fires, raku or pit pottery curing fires, or fires conducted as part of an unusual event such as fire dancing, provided the activity is not part of a business for gainful occupation.

"Silvicultural" means dealing with the cultivation of forest trees; forestry. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; am and comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-34; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-34; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52)

§11-60.1-52 General provisions. (a) Except as provided in subsections (b), (c), (d), (e) and section 11-60.1-53, no person shall cause, permit, or maintain any open burning. Any open burning is the responsibility of the person owning, operating, or managing the property, premises, business establishment, or industry where the open burning is occurring. Subsections (b), (c), (d), (e) and section 11-60.1-53 shall not apply to the open burning of human remains or animal carcasses unless the activities fall under the exemptions found in paragraph (d)(2).

(b) Subsection (a) shall not apply to attended fires for the cooking of food provided that:

- (1) Only untreated dry wood, charcoal, natural or synthetic natural gas, butane, propane, or cooking fuel is used, and
- (2) If visible smoke enters any residence, business or public area, best practical measures to eliminate the smoke, including extinguishing the fire, are taken.

(c) Subsection (a) shall not apply to the training of personnel in fire fighting methods [following], provided that notification is given to the director prior to the commencement of any burn[÷

- ~~(1) Fires set to a building, structure or simulated aircraft for training personnel in firefighting methods].~~

(d) Subsection (a) shall not apply to the following, provided that the burning is approved by the director:

- (1) Outdoor fires for recreational, religious, ceremonial or decorative, or related purposes including, but not limited to, campfires, bonfires, pottery curing fires, that are burning dry untreated wood, charcoal, or auxiliary fuels;

- (2) Fires for the disposal of human remains and animal carcasses and debris generated from a natural disaster or catastrophic event, where there is no reasonable alternative method of disposal;
- (3) Outdoor fires set for cultural, traditional, or related purposes and fires within cultural or traditional structures including sweat houses or lodges; and
- (4) Pyrotechnics for the creation of special effects during filming or motion pictures, television programs, or other commercial video, photography or creative arts production activities.

(e) Subsection (a) shall not apply to the following, provided that the burning is both approved by the director, and that the burning is allowed under either section 11-60.1-55 or 11-60.1-52(f):

- (1) Fires to abate a fire hazard, provided that the hazard is so declared by the fire department, forestry division, or federal agency having jurisdiction, and that a prescribed burning plan, if applicable, has been submitted to and approved by the jurisdictional agency;
- (2) Fires for prevention or control of disease, pests, invasive species or other natural threats to the environment or economy; and
- (3) Fires for the disposal of dangerous materials, where there is no alternate method of disposal;

(f) The director may provide a waiver to the section 11-60.1-55 "no-burn" period for any exemption to open burning found under subsection 11-60.1-52(e).

(g) Subsections (b), (c), (d), or (e) shall not exempt any activity from the application of any rules or requirements in any other section or chapter. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; am and comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and

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52) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-52 is based substantially upon §11-60-31. [Eff 11/29/82; am, ren §11-60-31 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-53 Agricultural burning: permit applicability. No person engaged in any agricultural operation, forest management, or range improvement shall cause or allow agricultural burning without first obtaining an agricultural burning permit from the director. Any person who fails to comply with the terms and conditions of the permit or this chapter shall be subject to the penalties and remedies provided for in sections 342B-42, 342B-44, 342B-47, and 342B-48, HRS, including the invalidation of the permit. No agricultural permit shall be granted for, or be construed to permit:

- (1) The open burning of trash, waste, or by-products generated outside the permitted property;
- (2) The open burning of trash or other waste that has been handled or processed by factory operations, not including material from the field; or
- (3) The open burning of any waste for the clearing of land. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; am and comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-21; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-21; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-53 is based substantially upon §11-60-32. [Eff 11/29/82; am, ren §11-60-32 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-54 Agricultural burning permit

application. (a) Application for an agricultural burning permit shall be made on forms furnished by the director. The application shall include the following:

- (1) Business license information or commercial agricultural activity general excise tax license, if applicable;
- (2) Maps of areas to be burned showing fields by appropriate numbers and acreage, direction of prevailing winds, location of residential, school, and commercial establishments, public buildings, airports, and public utilities;
- (3) The designation of fields to be burned under specified wind conditions; and
- (4) Any other information as required and deemed necessary by the director to make a decision on the application.

(b) To be eligible for an agricultural burning permit, the applicant must currently be involved in agricultural operations, forest management, or range improvements at the property where burning will occur, and must have legal right, title, or possession to the property, and if not the owner, must have the written authorization of the owner or owner's representative to burn on the property.

(c) Each application shall be signed by the applicant as being true and accurate and shall constitute an agreement that the applicant shall comply with all the terms and conditions of the permit and this chapter.

(d) The director shall not continue to act upon or consider any incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required or requested pursuant to subsection (a) has been submitted;

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- (2) All documents in subsection (a) have been signed by the applicant; and
- (3) All applicable fees have been submitted.
- (e) The application will be deemed complete sixty days after received unless the director requests the applicant to provide additional information. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; am and comp 1/13/12; comp 6/30/14; comp 02/08/24]
(Auth: HRS §§342B-3, 342B-12, 342B-21; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52)
(Imp: HRS §§342B-3, 342B-12, 342B-21; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-54 is based substantially upon §11-60-33. [Eff 11/29/82; am, ren §11-60-33 and comp 4/14/86; comp 6/29/92; R 11/26/93]

§11-60.1-55 Agricultural burning or conditionally allowed open burning from subsection 11-60.1-52(e): "no-burn" periods. (a) Except as provided in subsection (f), no person, with or without an agricultural burning permit, shall cause or allow agricultural burning or conditionally allowed open burning from subsection 11-60.1-52(e) when a "no-burn" period has been declared by the director.

(b) "No-burn" periods shall be determined by current and forecasted weather conditions which **could increase air pollutants or** inhibit the dispersion of air pollutants. A no-burn period may be declared if unfavorable meteorological conditions such as high winds, temperature inversions and air stagnation are existing and forecasted to continue or deteriorate. If forecasting is unavailable, "no-burn" periods shall be determined based on visibility.

(c) Visibility shall be used as the basis for determining "no-burn" periods when forecasting is not possible or not available. A "no-burn" call based on visibility shall be made under the following conditions:

- (1) When the director determines that meteorological conditions have resulted in widespread haze on any island or in any district on the island and that these meteorological conditions will continue or deteriorate. For the purposes of this section, widespread haze shall be considered to exist when all visible ridges:
 - (A) Within five to ten miles have a "smoky" or bluish appearance and colors are subdued; and
 - (B) Beyond ten miles have a blurred appearance;
 - (2) When a "no-burn" period has been declared in a district and smoke from any adjacent district, as determined by the director, may impact on the affected district, the "no-burn" period shall apply to both districts; or
 - (3) On the island of Oahu either when the condition specified in paragraph (1) or (2) occurs or when meteorological conditions have resulted in a rise of the carbon monoxide level exceeding five mg/m³ for an eight-hour average or the PM₁₀ level exceeding one hundred thirty five µg/m³ for twenty-four hours and when the director determines that these meteorological conditions will continue or deteriorate.
- (d) Verification that widespread haze exists in any district may be accomplished by consultation with department personnel in the appropriate district.
- (e) Notices of "no-burn" periods for the specified islands or districts may be posted on a department web page and shall apply to a specified "no burn" period.
- (f) In a district where a long-term "no burn" declaration is in effect, the director may provide a waiver during an agricultural "no burn" period for the control of plant diseases or infestations when burning is determined to be the best available method of control. [Eff 11/26/93; comp 10/26/98; am and comp

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9/15/01; comp 11/14/03; am and comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-43; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-43; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-55 is based substantially upon §11-60-34. [Eff 11/29/82; am, ren §11-60-34 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-56 Agricultural burning: recordkeeping and monitoring. Each permittee shall monitor and maintain records in accordance with the agricultural burning permit issued by the director. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-28; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-28; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-56 is based substantially upon §11-60-35. [Eff 11/29/82; am, ren §11-60-35 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-57 Agricultural burning: action on application. (a) The director shall act on a complete application within a reasonable time, but not to exceed ninety calendar days from the date the complete application is received, and shall notify the applicant in writing of the approval or denial of the application. If the director has not acted on an application within the ninety calendar-day period, the application shall be deemed to have been approved.

(b) If an application is denied, the applicant may request in writing, a re-evaluation of the application to the director.

(c) If the application is denied after the re-evaluation, the applicant may request a hearing in accordance with chapter 91, HRS.

(d) The permit may be granted for a period of up to one year from the date of issuance.

(e) At the director's sole discretion or the application of any person, the director may terminate, suspend, reopen, or amend a permit if, after affording the applicant a hearing in accordance with chapter 91, HRS, it is determined that:

- (1) Any condition of the permit has been violated;
- (2) Any provision of this chapter has been violated;
- (3) Any provision of chapter 342B, HRS, has been violated;
- (4) The maintenance or attainment of NAAQS and state ambient air quality standards will be interfered with; or
- (5) The action is in the public interest.

(f) The permit shall not be transferable whether by operation of law or otherwise or from one person to another. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; am and comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-21, 342B-24, 342B-27; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-21, 342B-24, 342B-27; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

Historical note: §11-60.1-57 is based substantially upon §11-60-36. [Eff 11/29/82; am, ren §11-60-36 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-58 Agricultural burning: permit content. The director shall consider and incorporate the following elements into an agricultural burning permit, as applicable:

- (1) Notification of appropriate authorities prior to each burn;
- (2) The type and amount of material allowed to be burned and the time period(s) when burning is allowed;
- (3) Proper fire and safety control measures;
- (4) Operator or permittee must allow the director or an authorized representative, upon presentation of credentials, to enter the burn location and inspect, all facilities, practices, and operations, or records covered under the terms and conditions of the permit; and
- (5) Any other provision to assure compliance with all applicable requirements of HAR Chapter 11-60.1. [Eff and comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-21, 342B-22, 342B-24, 342B-27, 342B-28; 42 U.S.C. §§7407, 7410, 7416; 40 C.F.R. Parts 50, 51, and 52) (Imp: HRS §§342B-3, 342B-12, 342B-21, 342B-21, 342B-24, 342B-27, 342B-28; 42 U.S.C. §§7407, 7416; 40 C.F.R. Parts 50, 51, and 52)

SUBCHAPTER 4

NONCOVERED SOURCES

§11-60.1-61 Definitions. As used in this subchapter, unless otherwise defined for purposes of a particular section or subsection of this subchapter:

"Applicable requirement" means all of the following as they apply to emissions units in a noncovered source:

- (1) Any NAAQS or state ambient air quality standard;
- (2) Any standard or other requirement approved pursuant to Section 111 of the Act, including Section 111(d);

- (3) Any standard or other requirement approved pursuant to Section 112 of the Act, including any requirement concerning accident prevention approved pursuant to Section 112(r) (7) of the Act;
- (4) The application of best available control technology to control a regulated air pollutant, but only as best available control technology would apply to new noncovered sources and modifications to noncovered sources that have the potential to emit or increase emissions above significant amounts considering any limitations, enforceable by the director, on the noncovered source to emit a pollutant; and
- (5) Any standard or other requirement provided for in chapter 342B, HRS; this chapter; or chapter 11-59.

"General permit" means a noncovered source permit covering numerous similar sources that meets the requirements of section 11-60.1-70.

"Modification" means a physical change in or a change in the method of operation of a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted; or every significant change in existing monitoring requirements, and every relaxation of, or significant change in reporting or recordkeeping requirements. Routine maintenance, repair, and replacement of parts shall not be considered a modification.

"Temporary noncovered source" means a noncovered source that is intended to be operated at multiple locations for a designated period of time at each location. The operation of the source shall be temporary and involve at least one change of location during the term of a noncovered source permit.

"Timely application" means:

- (1) An initial application for a noncovered source permit which is submitted to the director in accordance with the schedule for

- application submittal specified in section 11-60.1-66; or
- (2) An application for a noncovered source permit renewal which is submitted to the director at least sixty days prior to the date of permit expiration. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-62 Applicability. (a) Except as provided in subsections (d) and (g) and section 11-60.1-66, no person shall burn used or waste oil or begin construction, reconstruction, modification, relocation, or operation of an emission unit or air pollution control equipment of any noncovered source without first obtaining a noncovered source permit from the director. The construction, reconstruction, modification, relocation, or operation shall continue only if the owner or operator of a noncovered source holds a valid noncovered source permit. An owner or operator of a grandfathered noncovered source, one constructed, modified, or relocated on or prior to March 20, 1972, may be required by the director to obtain a noncovered source permit if the source is found to operate in violation of an applicable requirement, or is found to have improper or inadequate air pollution controls.

(b) The noncovered source permit shall remain valid past the expiration date and the noncovered source shall not be in violation for failing to have a noncovered source permit, until the director has issued or denied a renewal of the noncovered source permit provided:

- (1) Prior to permit expiration, a timely and complete renewal application has been

submitted and the owner or operator acts consistently with the permit previously granted, the application on which it was based, and all plans, specifications, and other information submitted as part of the application; and

- (2) The owner or operator has submitted to the director within the specified deadlines all requested additional information deemed necessary to evaluate or take final action on the renewal application, as described in section 11-60.1-74(e).

(c) A noncovered source permit shall not constitute, nor be construed to be an approval of the design of a noncovered source. Noncovered source permits shall be issued in accordance with this chapter and it is the responsibility of the applicants to ensure compliance with all applicable requirements in the construction and operation of any noncovered source.

(d) The following are exempt from the requirements of subsection (a), provided that no exemption interferes with the imposition of any requirement of subchapter 5 or the determination of whether a stationary source is subject to any requirement of this chapter. Sources or activities exempt from the requirements of subsection (a) shall not relieve the owner or operator from complying with any other applicable requirement, including provisions of subchapter 2. Any fuel burning equipment identified shall not include equipment burning off-spec used oil or fuel classified as hazardous waste. The director shall reserve the right to disallow any exemption and impose the requirements of subsection (a), if the source or activity requires additional controls or monitoring to ensure compliance with the applicable requirements.

- (1) Stationary sources with potential emissions of less than:
 - (A) 500 pounds per year for each hazardous air pollutant, except lead;
 - (B) 300 pounds per year for lead;

- (C) five tons per year of carbon monoxide;
 - (D) 3,500 tons per year CO₂e for greenhouse gases; and
 - (E) two tons per year of each regulated air pollutant not already identified above;
- (2) All sources and source categories that would be required to obtain a permit solely because they are subject to the "Standards of Performance for New Residential Wood Heaters," 40 CFR Section 60.530 et seq.;
 - (3) Any storage tank, reservoir, or other container of capacity equal to or less than forty thousand gallons storing volatile organic compounds, except those storage tanks, reservoirs, or other containers subject to any standard or other requirement pursuant to Sections 111 and 112 of the Act;
 - (4) Gasoline service stations;
 - (5) Other than smoke house generators and gasoline fired industrial equipment, fuel burning equipment with a heat input capacity less than one million BTU per hour, or a combination of fuel burning equipment operated simultaneously as a single unit having a total combined heat input capacity of less than one million BTU per hour;
 - (6) Steam generators, steam superheaters, water boilers, or water heaters, all of which have a heat input capacity of less than five million BTU per hour, and are fired exclusively with one of the following:
 - (A) Natural or synthetic gas;
 - (B) Liquified petroleum gas; or
 - (C) A combination of natural, synthetic, or liquified petroleum gas;
 - (7) Kilns used for firing ceramic ware heated exclusively by natural gas, electricity, liquid petroleum gas, or any combination of these and have a heat input capacity of ten million BTU per hour or less;
 - (8) Standby generators used exclusively to provide electricity, standby sewage pump

drives, and other emergency equipment used to protect the health and welfare of personnel and the public, all of which are used only during power outages, emergency equipment maintenance and testing, and which:

- (A) Are fired exclusively by natural or synthetic gas; or liquified petroleum gas; or fuel oil No. 1 or No. 2; or diesel fuel oil No. 1D or No. 2D; and
 - (B) Do not trigger a PSD or covered source review, based on their potential to emit regulated or hazardous air pollutants;
- (9) Landfills, except for operating municipal waste landfills with a design capacity equal to or greater than 1,500,000 metric tons;
 - (10) Paint spray booths, except for paint spray booths subject to any standard or other requirement pursuant to Section 112(d) of the Act;
 - (11) Welding booths;
 - (12) Diesel fired portable industrial equipment less than 200 horsepower in size which is used during power outages or periodically for the equipment's maintenance and repair;
 - (13) Gasoline fired portable industrial equipment less than:
 - (A) 25 horsepower; or
 - (B) 200 horsepower in size which is used during power outages or periodically for the equipment's maintenance and repair;
 - (14) Hand held equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, or wood, provided reasonable precautions are taken to prevent particulate matter from becoming airborne. Reasonable precautions

- include the use of dust collection systems, dust barriers, or containment systems;
- (15) Laboratory equipment used exclusively for chemical and physical analyses;
 - (16) Containers, reservoirs, or tanks used exclusively for dipping operations for coating objects with oils, waxes, or greases where no organic solvents, diluents, or thinners are used; or dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents;
 - (17) Closed tumblers used for cleaning or deburring metal products without abrasive blasting, and pen tumblers with batch capacity of one thousand pounds or less;
 - (18) Ocean-going vessels, except for ocean-going vessels subject to any standard or other requirement for the control of air pollution from outer continental shelf sources, pursuant to 40 CFR Part 55;
 - (19) Fire water system pump engines dedicated for fire-fighting and maintaining fire water system pressure, which are operated only during fire fighting and periodically for engine maintenance, and fired exclusively by natural or synthetic gas; or liquified petroleum gas; or fuel oil No. 1 or No. 2; or diesel fuel No. 1D or No. 2D;
 - (20) Smoke generating systems used exclusively for training in government or certified fire fighting training facilities;
 - (21) Internal combustion engines propelling mobile sources such as automobiles, trucks, cranes, forklifts, front-end loaders, graders, trains, helicopters, and airplanes;
 - (22) Nonroad engines. Owners of nonroad engines, except for those exempt engines listed in subsection (d) of this section, must maintain a Nonroad Engine Location Log to demonstrate the engine meets subparagraph (1)(C) of the nonroad engine definition of Subchapter 1. The Nonroad Engine Location Log shall

include:

- (A) Owner's Name;
 - (B) Engine Manufacturer and Model;
 - (C) Engine Serial Number;
 - (D) Engine Date of Manufacture; and
 - (E) For each location to which the engine is moved, the location of the engine, initial date at the location, and the date moved off the location;
- (23) Diesel fired portable ground support equipment used exclusively to start aircraft or provide temporary power or support service to aircraft prior to start-up;
 - (24) Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots), including equipment used to conduct these activities, provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and are not otherwise subject to an applicable requirement triggering a permit modification;
 - (25) Fuel burning equipment which is used in a private dwelling or for space heating, other than internal combustion engines, boilers, or hot furnaces;
 - (26) Ovens, stoves, or grills used solely for the purpose of preparing food for human consumption operated in private dwellings, restaurants, or stores;
 - (27) Stacks or vents to prevent escape of sewer gases through plumbing traps;
 - (28) Air conditioning or ventilating systems not designed to remove air pollutants generated by or released from equipment, and that do not involve the open release or venting of CFC's into the atmosphere;
 - (29) Woodworking shops with a sawdust collection system; and

- (30) Other sources as may be approved by the director.

(e) An owner or operator of a stationary source that is not subject to the requirements of subchapter 4, and that becomes subject to the requirements of subchapter 4 because of a new or amended regulation in HRS chapter 342B or this chapter shall submit a complete and timely noncovered source permit application. For purposes of this subsection, "timely" means within six months after the effective date of the new or amended regulation or such other time as approved by the director. The owner or operator of the source may continue to construct or operate and shall not be in violation for failing to have a noncovered source permit only if the owner or operator has submitted to the director a complete and timely noncovered source permit application, and any additional information necessary for the processing of the application, including additional information required pursuant to sections 11-60.1-63(d) and 11-60.1-64.

(f) An owner or operator of a stationary source that becomes subject to the requirements of subchapter 5 pursuant to a new or amended regulation under Section 111 or 112 of the Act, HRS chapter 342B, or this chapter shall submit a complete and timely covered source permit application to address the new requirements. For purposes of this subsection, "timely" means:

- (1) by the date required under subchapter 8 or 9 of this chapter, or the applicable federal regulation, whichever deadline is earlier; or
- (2) within twelve months after the effective date of the new or amended regulation, if not specified in the applicable regulation.

The owner or operator of the source may continue to construct or operate and shall not be in violation for failing to have a covered source permit addressing the new requirements only if the owner or operator has submitted to the director a complete and timely covered source permit application, and any additional

information that the director deems necessary to evaluate or take final action on the application, including additional information required pursuant to sections 11-60.1-83(d) and 11-60.1-84.

(g) The director, upon written request and submittal of adequate support information from the owner or operator of a noncovered source, may provide written approval of the following activities to proceed without prior issuance or amendment of a noncovered source permit. Under no circumstances will these activities be approved if the activity interferes with the imposition of any applicable requirement or the determination of whether a stationary source is subject to any applicable requirement.

- (1) Installation and operation of air pollution control devices. The director may allow the installation and operation of an air pollution control device prior to issuing a noncovered source permit or amendment to a noncovered source permit if the owner or operator of the source can demonstrate that the control device reduces the amount of emissions previously emitted, does not emit any new air pollutants, and does not adversely affect the ambient air quality impact assessment. The owner or operator of the noncovered source shall submit with the written request, a complete noncovered source permit application to install and operate the air pollution control device.
- (2) Test burns. The director may allow an owner or operator of a noncovered source to test alternate fuels not allowed by permit if the following conditions are met:
 - (A) The test burn period does not exceed one week, unless the director, upon reasonable justification, approves a longer period, not to exceed three months;
 - (B) The purpose of the test burn is to establish emission rates, to determine

- if alternate fuels are feasible with the existing noncovered source facility, or as an investigative measure to research the operational characteristics of a fuel;
- (C) A stack performance test, a pre-approved monitoring program, or both, if requested by the director, are conducted during the test burn to record and verify emissions;
 - (D) The owner or operator of the noncovered source provides emission estimates of the test burn and if requested by the director, an ambient air quality impact assessment to demonstrate that no violation of the NAAQS and state ambient air quality standards will occur;
 - (E) The owner or operator of the noncovered source demonstrates that the use of the alternate fuel is allowed or not restricted by any applicable requirement, other than the permit condition(s) restricting the alternate fuel use; and
 - (F) If a performance test or monitoring is required, the owner or operator of the noncovered source provides written test or monitoring results within sixty days of the completion of the test burn or such other time as approved by the director. The results shall include the operational parameters of the noncovered source at the time of the test burn, and any other significant factors that affected the test or monitoring results.

If the director approves the test burn, the director may set operational limitations or other conditions for the test burn. Deviations from those limits or conditions shall be considered a violation of this

chapter. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-63 Initial noncovered source permit application.

(a) Every application for an initial noncovered source permit shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules to the extent needed to determine or regulate emissions; specifications and drawings showing the design of the source and plant layout; a description of all processes and products; and, if reasonably anticipated, a detailed description of alternative operating scenarios;
- (3) If available, maximum emission rates, including fugitive emissions, of all regulated and hazardous air pollutants from each emissions unit. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas

emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For greenhouse gases, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;

- (4) Identification and description of all points of emissions, including stack parameters;
- (5) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities as planned by the owner or operator of the noncovered source, and to the extent of available information, an estimate of emissions before and after controls;
- (6) Current operational limitations or work practices, or for noncovered sources that have not yet begun operation, such limitations or practices which the owner or operator of the noncovered source plans to implement that affect emissions of any regulated or hazardous air pollutants at the source;
- (7) Citation and description of all applicable requirements, and a description of or reference to any method and/or applicable test method for determining compliance with each applicable requirement;
- (8) A schedule for construction or modification of the noncovered source, if applicable;
- (9) All calculations and assumptions on which the information in paragraphs (2), (3), (4), (5), and (6) is based;
- (10) If requested by the director, an assessment of the ambient air quality impact of the noncovered source or modification. The assessment shall include all supporting data, calculations and assumptions, and a

comparison with the NAAQS and state ambient air quality standards;

- (11) If requested by the director, a risk assessment of the air quality related impacts caused by the noncovered source or modification to the surrounding environment;
- (12) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;
- (13) If requested by the director, information on other available control technologies;
- (14) An explanation of all proposed exemptions from any applicable requirement;
- (15) A compliance plan in accordance with section 11-60.1-65; and
- (16) Other information:
 - (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) The director shall not continue to act upon or consider an incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required or requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(c) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty

days of receipt of an application, the application shall be deemed complete.

(d) During the processing of an application that has been determined or deemed complete if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(e) The director, in writing, shall approve, conditionally approve, or deny an application for a noncovered source permit within six months after receipt of a complete application. A noncovered source permit application for a new noncovered source or a modification shall be approved only if the director determines that the construction or operation of the new noncovered source or modification will be in compliance with all applicable requirements and will not interfere with attainment or maintenance of the NAAQS. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-64 Duty to supplement or correct permit applications. Any applicant for a noncovered source permit who fails to submit any relevant facts or who has submitted incorrect information in any permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application, but prior to the issuance of the noncovered source permit. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth:

HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp:
HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-65 Compliance plan. (a) A compliance plan shall be submitted with every initial application for a noncovered source, temporary noncovered source, and general noncovered source permit, application for a noncovered source permit renewal, and application for a modification to a noncovered source, and at such other times as requested by the director.

- (b) The owner or operator of a noncovered source shall submit to the director for approval a compliance plan which includes at a minimum the following information: (1) A description of the compliance status of the existing noncovered source or proposed source with respect to all the applicable requirements; and
- (2) The following statement or description and compliance schedule, as applicable:
 - (A) For applicable requirements with which the source is in compliance, a statement that the source is in compliance and will continue to comply with such requirements;
 - (B) For applicable requirements which become applicable during the permit term, a statement that the source on a timely basis will meet all such applicable requirements and a detailed schedule if required by the applicable requirement. The statement shall include documentation on the proposed method the owner or operator plans to initiate to obtain compliance; and a compliance schedule demonstrating that the source will meet such applicable requirement by the date specified in the applicable requirement; or

- (C) For applicable requirements with which the source is not in compliance, a narrative description of how the source will achieve compliance with all such applicable requirements; and a detailed compliance schedule containing specific milestones of remedial measures to obtain compliance, allowing for an enforceable sequence of actions. Any compliance schedule shall resemble and shall be at least as stringent as any judicial consent decree or administrative order that applies to the source. The schedule shall not sanction noncompliance with the applicable requirements on which the schedule is based.

(c) If a compliance plan is to remedy a violation, a progress report certified pursuant to section 11-60.1-4 shall be submitted to the director no less frequently than every six months and shall include:

- (1) Dates for achieving the activities, milestones, or compliance, and dates when such activities, milestones, or compliance were achieved; and
- (2) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24]
(Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-66 Transition into the noncovered source permit program. (a) The owner or operator of an existing noncovered source with a permit to

operate, issued pursuant to repealed chapter 11-60, shall submit a complete initial noncovered source permit application at least sixty days prior to the expiration of the permit to operate. The owner or operator shall continue to operate according to the provisions of the permit to operate and in accordance with any applicable laws, regulations, and rules in effect at the time the permit to operate was issued, until the noncovered source permit is issued.

(b) The owner or operator of a noncovered source who has applied for but has not received an initial permit to operate or a renewal for a permit to operate pursuant to repealed chapter 11-60 shall submit to the director in a timely manner, not to exceed sixty days from the effective date of this chapter, a complete initial noncovered source permit application (less any permit to operate application fee previously submitted). The owner or operator shall continue to operate according to the provisions of the authority to construct or permit to operate, whichever is applicable, and in accordance with any applicable laws, regulations, and rules in effect at the time the authority to construct or permit to operate was issued, until the noncovered source permit is issued.

(c) The owner or operator of a noncovered source with an authority to construct permit, issued pursuant to repealed chapter 11-60, shall submit to the director a complete initial noncovered source permit application at least sixty days prior to the expiration of the authority to construct permit or the planned date of construction completion, whichever is earlier. The owner or operator may continue construction or operation provided construction or operation is performed in accordance with the provisions of the authority to construct permit and in accordance with any applicable laws, regulations, and rules in effect at the time the authority to construct permit was issued, until the noncovered source permit is issued.

(d) The owner or operator of a noncovered source who has applied for but has not received an authority to construct permit pursuant to repealed chapter 11-60

shall submit to the director in a timely manner a complete initial noncovered source permit application (less any authority to construct application fee previously submitted). A noncovered source permit for the emission unit subject to the authority to construct permit application must be obtained prior to commencement of construction, modification, relocation, or operation.

(e) In the event an authority to construct or permit to operate expires prior to the issuance of the noncovered source permit, the owner or operator may continue to construct or operate only if the owner or operator has submitted to the director a complete noncovered source permit application, and any additional information necessary for the processing of the application. The authority to construct or permit to operate shall continue to be in effect until the noncovered source permit is issued or denied, provided the owner or operator constructs or operates in accordance with the authority to construct or permit to operate and any applicable laws, regulations, and rules in effect at the time of the authority to construct or permit to operate issuance. Noncompliance with any condition of the authority to construct or permit to operate is considered a violation of this chapter.

(f) All noncovered source permit applications, compliance plans and filing fees shall be submitted in accordance with sections 11-60.1-63 and 11-60.1-65, and subchapter 6. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-67 Permit term. (a) A noncovered source permit shall not be issued for any term exceeding five years.

(b) A noncovered source permit may be renewed for any term not to exceed five years. [Eff 11/26/93;

comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

Historical note: §11-60.1-67 is based substantially upon §11-60-48. [Eff 11/29/82; am, ren §11-60-47 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-68 Permit content. The director shall consider and incorporate the following elements into a noncovered source permit as applicable:

- (1) Emission limitations and standards, including operational requirements and limitations to assure compliance with all applicable requirements at the time of permit issuance;
- (2) Permit term pursuant to section 11-60.1-67;
- (3) Requirements for the installation of devices, at the expense of the owner or operator, for the measurement or analysis of source emissions or ambient concentrations of air pollutants;
- (4) The requirement for source emissions tests or alternative methodology to determine compliance with the terms and conditions of the noncovered source permit and applicable requirements. Source emission tests conducted or alternative methodology used shall be at the expense of the owner or operator;
- (5) Monitoring and related recordkeeping and reporting requirements to assure compliance with all the terms and conditions of the permit, including:
 - (A) Monitoring results expressed in units, averaging periods, and other statistical conventions consistent with the applicable requirements;

- (B) Requirements concerning the use, maintenance, and installation of monitoring equipment. The installation, operation, and maintenance of the monitoring equipment shall be at the expense of the owner or operator;
- (C) Appropriate monitoring methods;
- (D) Monitoring records including:
 - (i) Place as defined in the permit, date, and time of sampling or measurements;
 - (ii) Dates the analyses were performed;
 - (iii) The name and address of the company or entity that performed the analyses;
 - (iv) Analytical techniques or methods used;
 - (v) Analyses results; and
 - (vi) Operating conditions during the time of sampling or measurement;
- (E) Other records including support information, such as calibration and maintenance records, original stripchart recordings or computer printouts for continuous monitoring instrumentation, and all other reports required by the director;
- (F) A requirement for the retention of records of all required monitoring data and support information for a period of at least three years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original stripchart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit; and

- (G) Provisions for the owner or operator to annually report in writing emissions of hazardous air pollutants;
- (6) Terms and conditions for reasonably anticipated operating scenarios identified by the source in the noncovered source permit application as approved by the director. Such terms and conditions shall include:
 - (A) A requirement that the owner or operator, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility the scenario under which it is operating and, if required by the director, submit written notification to the director; and
 - (B) Provisions to ensure that the terms and conditions under each alternative scenario meet all applicable requirements;
- (7) General provisions including:
 - (A) A statement that the owner or operator shall comply with all terms and conditions of the noncovered source permit and that any permit noncompliance constitutes a violation of this chapter, and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application;
 - (B) A severability clause to ensure the continued validity of the various permit requirements in the event of a challenge to any portion of the permit;
 - (C) A statement that it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain

- compliance with the terms and conditions of the permit;
- (D) A statement that the permit may be terminated, suspended, reopened, or amended for cause pursuant to sections 11-60.1-10 and 11-60.1-72, and section 342B-27, HRS. The filing of a request by the permittee for a permit termination, suspension, reopening, or amendment or of a notification of planned changes or anticipated noncompliance does not stay any permit condition;
 - (E) A statement that the permit does not convey any property rights of any sort, or any exclusive privilege;
 - (F) A provision that, if construction is not commenced, continued, or completed in accordance with section 11-60.1-9, the noncovered source permit for the subject emission unit shall become invalid;
 - (G) A provision that the owner or operator shall notify the director in writing of the anticipated date of initial start-up for each emission unit of a new noncovered source or modification to the source not more than sixty days or less than thirty days prior to such date. The director shall also be notified in writing of the actual date of construction commencement and start-up within fifteen days after such dates;
 - (H) A requirement pursuant to sections 11-60.1-15 and 11-60.1-16 for reporting of equipment shutdown and malfunction;
 - (I) A statement that the owner or operator shall furnish in a timely manner any information or records requested in writing by the department to determine whether cause exists for terminating,

suspending, reopening, or amending the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit. For information claimed to be confidential, the permittee shall furnish such records to the department with a claim of confidentiality;

- (J) A provision for the designation of confidentiality of any records pursuant to section 11-60.1-14;
- (K) A requirement that the owner or operator shall submit fees in accordance with subchapter 6;
- (L) Certification requirements pursuant to section 11-60.1-4;
- (M) A requirement that the owner or operator allow the director or an authorized representative, upon presentation of credentials or other documents required by law:
 - (i) To enter the owner or operator's premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of the permit and request copies of records or copy records required by the permit; and
 - (ii) To sample or monitor at reasonable times substances or parameters to assure compliance with the permit or applicable requirements; and

- (N) A requirement that at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (8) Compliance plan submittal requirements pursuant to section 11-60.1-65; and
- (9) Any other provision to assure compliance with all applicable requirements. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-69 Temporary noncovered source permits.

- (a) An owner or operator of a temporary noncovered source may apply for a temporary noncovered source permit. The owner or operator of the temporary noncovered source shall certify its intention to operate at various locations with the same equipment and similar operational methods.
- (b) The application and issuance of a temporary noncovered source permit is subject to the same procedures and requirements for an initial application and issuance of a noncovered source permit, including

requirements of section 11-60.1-63. The initial location of the source shall be specified.

(c) Upon issuance of the temporary noncovered source permit, the owner or operator shall submit all succeeding location changes to the director for approval at least thirty days or such lesser time as designated and approved by the director, prior to the change in location. The owner or operator shall submit sufficient information to enable the director to assess the air quality impact the temporary noncovered source may have at the new location. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) Temporary noncovered source permit identification number and expiration date;
- (3) Location map of the new temporary location, identifying the surrounding commercial, industrial, and residential developments;
- (4) Projected dates of operation at the new location;
- (5) Identification of any other air pollution source at the new location; and
- (6) Certification that no modification will be made to the equipment, and operational methods will remain similar as permitted under the temporary noncovered source permit at the new location.

(d) The director shall not continue to act upon or consider a location change request, unless the following have been submitted:

- (1) All required information as identified in subsection (c);
- (2) Any additional information as requested by the director; and
- (3) Any applicable fee.

(e) Prior to any relocation, the director shall approve, conditionally approve, or deny in writing each location change. If the director denies a location change, the applicant may appeal the decision pursuant to chapter 91, HRS.

(f) With the exception of the initial location, if a source remains in any one location for longer than twelve consecutive months, the director may request an ambient air quality impact assessment of the source.

(g) At each of the authorized locations, the owner or operator shall operate in accordance with the temporary noncovered source permit and all applicable requirements. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-70 Noncovered source general permits.

(a) The director, at the director's sole discretion may, after providing for public notice, including the method by which a hearing can be requested, and an opportunity for public comment in accordance with section 11-60.1-73, issue a noncovered source general permit for similar noncovered sources. The general noncovered source permit expiration date shall apply to all sources covered under this permit.

(b) The director shall establish criteria and conditional requirements in the noncovered source general permit by which noncovered sources may qualify for the general permit. Noncovered sources qualifying for a noncovered source general permit shall, at a minimum, have the same Standard Industrial Classification Code, similar equipment design and air pollution controls, and the same applicable requirements. Under no circumstances shall a general permit be considered for noncovered sources requiring a case-by-case determination for air pollution control requirements (e.g. Best Available Control Technology

Determination). The owner or operator of a noncovered source shall be subject to enforcement action for operating without a permit if the source is later determined not to qualify for the conditions and terms of the general permit.

(c) The owner or operator of a noncovered source requesting coverage for some or all of its emission units under the terms and conditions of the noncovered source general permit must submit an application to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules to the extent needed to determine or regulate emissions; specifications and drawings showing the design of the source and plant layout; and a description of all processes and products;
- (3) If available, maximum emission rates, including fugitive emissions, of all regulated and hazardous air pollutants from each emissions unit. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For greenhouse gases, emission rates shall also

- be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;
- (4) Identification and description of all points of emissions including stack parameters;
 - (5) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities as planned by the owner or operator of the source, and to the extent of available information, an estimate of emissions before and after controls;
 - (6) Current operational limitations or work practices, or for noncovered sources that have not yet begun operation, such limitations or practices which the owner or operator of the source plans to implement that affect emissions of any regulated or hazardous air pollutants at the source;
 - (7) A schedule for construction of the noncovered source, if applicable;
 - (8) All calculations and assumptions on which the information in paragraphs (2), (4), (5), and (6) is based;
 - (9) If requested by the director, an assessment of the ambient air quality impact of the noncovered source. The assessment shall include all supporting data, calculations, and assumptions, and a comparison with the NAAQS and state ambient air quality standards;
 - (10) If requested by the director, a risk assessment of the air quality related impacts caused by the noncovered source to the surrounding environment;
 - (11) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;
 - (12) If requested by the director, information on other available control technologies;
 - (13) An explanation of all proposed exemptions from any applicable requirement;

- (14) A compliance plan in accordance with section 11-60.1-65; and
- (15) Other information:
 - (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(d) The director shall not continue to act upon or consider any incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (c) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(e) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty days of receipt of an application, the application shall be deemed complete.

(f) During the processing of an application that has been determined or deemed complete if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(g) The director, in writing, shall approve, conditionally approve, or deny an application for coverage under a noncovered source general permit within six months after receipt of a complete application.

(h) The director may approve an application for coverage under a noncovered source general permit without repeating the public participation procedures. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-71 Transmission of information to the administrator. (a) The director may at any time require the owner or operator of a noncovered source to submit to the Administrator a copy of any noncovered source permit application, including applications for permit renewal and permit amendment reflecting a proposed modification, compliance plan, or records required to be kept under the noncovered source permit.

(b) The department shall maintain records on all noncovered source permit applications, compliance plans, final permits, and other relevant information for a minimum of five years. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-72 Permit reopening. (a) The director shall reopen and amend a noncovered source permit if the director determines that any one of the following circumstances exist:

- (1) The director determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- (2) The permit must be terminated, suspended, or amended to assure compliance with the applicable requirements.

(b) Procedures to reopen and amend a noncovered source permit shall be the same as procedures which apply to initial permit issuance in accordance with section 11-60.1-63 and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) The director shall provide written notification to the permittee on the reopening of the permit indicating the basis for reopening at least thirty days prior to the reopening date, except that the director may provide a shorter time period if it is determined that immediate action on the reopening of the permit is required to prevent an imminent peril to public health and safety or the environment.

(d) If requested by the director, the owner or operator of a noncovered source shall submit a permit application or information related to the basis of the permit reopening or those provisions affected by the reopening within thirty days of receipt of the permit reopening notice. An extension for the application submittal may be granted by the director if the owner or operator can provide adequate written justification for such an extension. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-73 Public participation. (a) In considering an application for a noncovered source permit, the director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment for permits that result in a net increase in emissions of any air pollutant at or above the "significant" emission rates of 11-60.1-131, paragraph (1) of the definition. The fugitive emissions of a stationary source shall not be included in determining the increase in emissions of the source for the purposes

of this section, unless the source belongs to one of the categories of stationary sources listed in paragraph (2) of the definition of "major source" in section 11-60.1-1. Any person requesting a public hearing shall do so during the public comment period. Any request from a person for a public hearing shall indicate the interest of the person filing the request and the reasons why a public hearing is warranted.

(b) Procedures for public notice, public comment periods, and public hearings shall be as follows:

- (1) The director shall make available for public inspection in at least one location in the county affected by the proposed action, or in which the source is or would be located:
 - (A) Information on the subject matter;
 - (B) Information submitted by the applicant, except for that determined to be confidential pursuant to section 11-60.1-14;
 - (C) The department's analysis and proposed action; and
 - (D) Other information and documents determined to be appropriate by the department;
- (2) Notification of a public hearing shall be given at least thirty days in advance of the hearing date;
- (3) A public comment period shall be no less than thirty days following the date of the public notice, during which time interested persons may submit to the department written comments on:
 - (A) The subject matter;
 - (B) The application;
 - (C) The department's analysis;
 - (D) The proposed actions; and
 - (E) Other considerations as determined to be appropriate by the department;
- (4) Notification of a public comment period or a public hearing shall be made:
 - (A) By publication in a newspaper which is printed and issued at least twice

- weekly in the county affected by the proposed action, or in which the source is or would be located;
- (B) To persons on a mailing list developed by the director, including those who request in writing to be on the list; and
 - (C) If necessary by other means to assure adequate notice to the affected public;
- (5) Notice of public comment and public hearing shall identify:
- (A) The affected facility;
 - (B) The name and address of the permittee;
 - (C) The name and address of the agency of the department processing the permit;
 - (D) The activity or activities involved in the permit action;
 - (E) The emissions change involved in any permit amendment reflecting a modification to the noncovered source;
 - (F) The name, address, and telephone number of a person from whom interested persons may obtain additional information, including copies of the draft permit, the application, all relevant supporting materials including any compliance plan and monitoring reports, and all other materials available to the department that are relevant to the permit decision, except for information that is determined to be confidential pursuant to section 11-60.1-14;
 - (G) A brief description of the comment procedures;
 - (H) The time and place of any hearing that may be held, including a statement of procedures to request a hearing if one has not already been scheduled; and
 - (I) The availability of the information listed in paragraph (1), and the

- location and times the information will be available for inspection; and
- (6) The director shall maintain a record of the commenters and the issues raised during the public participation process and shall provide this information to the Administrator upon request.
- [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-74 Noncovered source permit renewal applications. (a) Every application for a noncovered source permit renewal is subject to the same requirements for an initial application of a noncovered source permit including the requirements of section 11-60.1-63. Applications shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) Statement certifying that no changes have been made in the design or operation of the source as proposed in the initial and any subsequent noncovered source permit applications. If changes have occurred or are being proposed, the applicant shall provide a description of those changes such as work practices, operations, equipment design, and monitoring procedures;

- (3) A compliance plan in accordance with section 11-60.1-65; and
- (4) Other information as may be necessary:
 - (A) for the director to make a decision on the application; and
 - (B) to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) Each application for permit renewal shall be submitted to the director a minimum of sixty days prior to the date of permit expiration.

(c) The director shall not continue to act upon or consider any incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(d) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty days of receipt of an application, the application shall be deemed complete.

(e) During the processing of an application that has been determined or deemed complete if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response. As set forth in section 11-60.1-62, the noncovered source's ability to operate and the validity of the noncovered source permit shall continue beyond the permit expiration date, until the final permit is issued or denied, provided the applicant submits all additional

information within the reasonable deadline specified by the director.

(f) The director, in writing, shall approve, conditionally approve, or deny an application for renewal of a noncovered source permit, including an application for renewal requesting coverage under a noncovered source general permit, within six months after receipt of a complete application. If the application for renewal has not been approved or denied within six months after a complete application is received, the noncovered source permit and all its terms and conditions shall remain in effect and not expire until the application for renewal has been approved or denied. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; am and comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-75 Administrative permit amendment.

(a) The director, at the director's sole discretion or upon written request from the owner or operator of a noncovered source, may issue an administrative permit amendment.

(b) Except for a request to consolidate two or more noncovered source permits into one or to change ownership or operational control, an owner or operator requesting an administrative permit amendment may make the requested change immediately upon submittal of the request.

(c) Within sixty days of receipt of a written request for an administrative permit amendment, the director shall take final action on the request and may amend the permit without providing notice to the public. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-76 Applications for modifications. (a)

Every application for a modification to a noncovered source shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application. Information submitted shall include:

- (1) The name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) A description of the modification, identifying all proposed changes, including any changes to the source operations, work practices, equipment design, source emissions, or any monitoring, recordkeeping, and reporting procedures;
- (3) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules to the extent needed to determine or regulate emissions of any proposed addition or modification of any source of emissions; specifications and drawings showing the design of the source and plant layout; a description of all processes and products; and, if reasonably anticipated, a detailed description of alternative operating scenarios;
- (4) If available, maximum emissions rates, including fugitive emissions, of all regulated and hazardous air pollutants from each emissions unit. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas

emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For greenhouse gases, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;

- (5) Identification and description of all points of emissions including stack parameters;
- (6) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities as planned by the owner or operator of the noncovered source or modification, and to the extent of available information, an estimate of emissions before and after controls;
- (7) Citation and description of all applicable requirements, and a description of or reference to any method and/or applicable test method for determining compliance with each applicable requirement;
- (8) Operational limitations or work practices which the owner or operator of the noncovered source plans to implement that affect emissions of any regulated or hazardous air pollutants at the source;
- (9) A schedule for construction or modification of the noncovered source;
- (10) All calculations and assumptions on which the information in paragraphs (3), (4), (5), (6), and (8) is based;
- (11) If requested by the director, an assessment of the ambient air quality impact of the noncovered source or modification. The assessment shall include all supporting data, calculations and assumptions, and a comparison with the national and state ambient air quality standards;

- (12) If requested by the director, a risk assessment of the air quality related impacts caused by the noncovered source or modification to the surrounding environment;
- (13) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;
- (14) If requested by the director, information on other available control technologies;
- (15) An explanation of all proposed exemptions from any applicable requirement;
- (16) A compliance plan in accordance with section 11-60.1-65; and
- (17) Other information:
 - (A) As requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) The director shall not continue to act upon or consider any incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(c) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty days of receipt of an application, the application shall be deemed complete.

(d) During the processing of an application that has been determined or deemed complete if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(e) The director, in writing, shall approve, conditionally approve, or deny an application for modification to a noncovered source within six months after receipt of a complete application. An application for modification shall be approved only if the director determines that the modification will be in compliance with all applicable requirements and will not interfere with attainment or maintenance of the NAAQS. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

SUBCHAPTER 5

COVERED SOURCES

§11-60.1-81 Definitions. As used in this subchapter, unless otherwise defined for purposes of a particular section or subsection of this subchapter:

"Applicable requirement" means all of the following as they apply to emissions units in a covered source (including requirements that have been promulgated or approved by EPA through rulemaking at the time of permit issuance but have future-effective compliance dates):

- (1) Any standard or other requirement provided for in the state implementation plan approved or promulgated by EPA;
- (2) Any term or condition of any preconstruction permit issued pursuant to regulations approved or promulgated through rulemaking

- pursuant to Title I, including Part C of the Act;
- (3) Any standard or other requirement approved pursuant to Section 111 of the Act, including Section 111(d);
 - (4) Any standard or other requirement approved pursuant to Section 112 of the Act, including any requirement concerning accident prevention approved pursuant to Section 112(r)(7) of the Act;
 - (5) Any requirement approved pursuant to Section 504(b) or 114(a)(3) of the Act;
 - (6) Any standard or other requirement governing solid waste incineration approved pursuant to Section 129 of the Act;
 - (7) Any standard or other requirement for consumer and commercial products, approved pursuant to Section 183(e) of the Act;
 - (8) Any standard or other requirement for tank vessels approved pursuant to Section 183(f) of the Act;
 - (9) Any standard or other requirement of the program to control air pollution from outer continental shelf sources approved pursuant to Section 328 of the Act;
 - (10) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone approved pursuant to Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit;
 - (11) Any NAAQS or increment or visibility requirement approved pursuant to Part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to Section 504(e) of the Act;
 - (12) Any NAAQS or state ambient air quality standard;
 - (13) Any standard or other requirement approved pursuant to Title I, including Part C of the Act;

- (14) The application of best available control technology to control regulated air pollutants, but only as best available control technology would apply to new covered sources and significant modifications to covered sources that have the potential to emit or increase emissions above significant amounts considering any limitations, enforceable by the director, on the covered source to emit a pollutant; and
- (15) Any standard or other requirement provided for in chapter 342B, HRS; this chapter; or chapter 11-59.

"Emissions allowable under the permit" means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

"Final covered source permit" means the version of a covered source permit issued by the director that has completed all review procedures required by 40 CFR Parts 70.7 and 70.8.

"General permit" means a covered source permit covering numerous similar sources that meets the requirements of section 11-60.1-92.

"Minor modification" means a modification which:

- (1) Does not increase the emissions of any air pollutant above the permitted emission limits and for existing major stationary sources, does not result in a major modification as defined in section 11-60.1-131;
- (2) Does not result in or increase the emissions of any air pollutant not limited by permit to levels equal to or above the following, and for existing major stationary sources, does not result in a major modification as defined in section 11-60.1-131:
 - (A) 500 pounds per year of a hazardous air

- pollutant, except lead;
- (B) 300 pounds per year of lead;
- (C) twenty-five percent of significant amounts of emission as defined in section 11-60.1-1, paragraph (1) in the definition of "significant"; or
- (D) two tons per year of each regulated air pollutant not already identified above;
- (3) Does not violate any applicable requirement;
- (4) Does not involve significant changes to existing monitoring requirements or any relaxation or significant change to existing reporting or recordkeeping requirements in the permit. Any change to the existing monitoring, reporting, or recordkeeping requirements that reduces the enforceability of the permit is considered a significant change;
- (5) Does not require or change a case-by-case determination of an emission limitation or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
- (6) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement, and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - (A) A federally enforceable emissions cap assumed to avoid classification as a modification pursuant to any provision of Title I of the Act or subchapter 7; and
 - (B) An alternative emissions limit approved pursuant to regulations promulgated pursuant to Section 112(i)(5) of the Act or subchapter 9; and
- (7) Is not a modification pursuant to any provision of Title I of the Act.

"Modification" means a physical change in or a change in the method of operation of a stationary source which requires a change to a permit. Modification includes minor and significant modifications. Routine maintenance, repair, and replacement of parts shall not be considered a modification.

"Nonmajor covered source" means any covered source that is not a major covered source.

"Proposed covered source permit" means the version of a permit that the director proposes to issue, and forwards to EPA for review pursuant to section 11-60.1-95.

"Section 502(b)(10) changes" means changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

"Significant modification" means a modification which does not qualify as a minor modification or administrative amendment. A significant modification shall include every significant change in existing monitoring requirements, and every relaxation of, or significant change to the existing reporting or recordkeeping requirements. Nothing herein shall be construed to preclude the permittee from making changes consistent with this part that would render existing permit compliance terms and conditions irrelevant.

"Temporary covered source" means a nonmajor covered source that is intended to be operated at multiple locations for a designated period of time at each location. The operation of the source shall be temporary and involve at least one change of location during the term of a covered source permit.

"Timely application" means:

- (1) An initial application for a covered source permit filed during the transition period, in accordance with the submittal schedule in section 11-60.1-87; or

- (2) An application for a covered source permit renewal which is submitted to the director no fewer than twelve months and no more than eighteen months prior to the permit expiration date, or the deadline as approved by the director pursuant to subsection 11-60.1-101(b).

"Transition period" means the three years following the effective date of this chapter. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp] (Auth: HRS §§342B-1, 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-1, 342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-82 Applicability. (a) Except as provided in subsections (d), (e), and (k) and section 11-60.1-87, no person shall burn used or waste oil or begin construction, reconstruction, modification, relocation, or operation of an emission unit or air pollution control equipment of any covered source without first obtaining a covered source permit from the director. The construction, reconstruction, modification, relocation, or operation shall continue only if the owner or operator of a covered source holds a valid covered source permit.

(b) The covered source permit shall remain valid past the expiration date and the covered source shall not be in violation for failing to have a covered source permit, until the director has issued or denied the renewal of the covered source permit, provided:

- (1) Prior to permit expiration, a timely and complete renewal application has been submitted and the owner or operator acts consistently with the permit previously granted, the application on which it was based, and all plans, specifications, and other information submitted as part of the application; and

- (2) The owner or operator has submitted to the director within the specified deadlines, all requested additional information deemed necessary to evaluate or take final action on the renewal application, as described in section 11-60.1-101(e).

(c) The covered source permit shall not constitute, nor be construed to be an approval of the design of the covered source. The covered source permit shall be issued in accordance with this chapter and it is the responsibility of the applicant to ensure compliance with all applicable requirements in the construction and operation of any covered source.

(d) The following are exempt from the requirements of subsection (a):

- (1) All sources and source categories that would be required to obtain a permit solely because they are subject to the "Standards of Performance for New Residential Wood Heaters," 40 CFR Section 60.530 et seq.;
- (2) All sources and source categories that would be required to obtain a permit solely because they are subject to the "Standards for Demolition and Renovation" pursuant to the "National Emission Standard for Asbestos," 40 CFR Section 61.145;
- (3) Ocean-going vessels, except for ocean-going vessels subject to any standard or other requirement for the control of air pollution from outer continental shelf sources, pursuant to 40 CFR Part 55;
- (4) Internal combustion engines propelling mobile sources such as automobiles, trucks, cranes, forklifts, front-end loaders, graders, trains, helicopters, and airplanes;
- (5) Nonroad Engines. Owners of nonroad engines, except for those exempt engines listed in subsections (f) and (g) of this section, must maintain a Nonroad Engine Location Log to demonstrate the engine meets subparagraph (1)(C) of the nonroad engine definition of

Subchapter 1. The Nonroad Engine Location Log shall include:

- (A) Owner's Name;
 - (B) Engine Manufacturer and Model;
 - (C) Engine Serial Number;
 - (D) Engine Date of Manufacture; and
 - (E) For each location to which the engine is moved, the location of the engine, initial date at the location, and the date moved off the location;
- (6) Diesel fired portable ground support equipment used exclusively to start aircraft or provide temporary power or support service to aircraft prior to start-up; and
- (7) Air-conditioning or ventilating systems that do not contain more than 50 pounds of any Class I or Class II ozone depleting substance regulated under Title VI of the Act and are not designed to remove air pollutants generated by or released from equipment.

(e) The owner or operator of any insignificant activity identified in subsections (f) and (g) may begin construction, reconstruction, modification, or operation of the activity without first obtaining a covered source permit, provided:

- (1) The insignificant activity does not cause a noncovered stationary source to become a major source;
- (2) The insignificant activity does not cause the stationary source to become subject to provisions of subchapter 7; and
- (3) The owner or operator can demonstrate to the director's satisfaction that each activity meets the size, emission level, or production rate criteria contained in subsections (f) and (g).

The insignificant activities listed in subsection (f) shall be identified in the covered source permit application. The insignificant activities listed in subsection (g) need not be identified in the covered source permit application, unless subject to an

applicable requirement. Any fuel burning equipment identified shall not include equipment burning off-spec used oil or fuel classified as hazardous waste. The director may request additional information on any insignificant activity to determine the applicability of, or to impose, any applicable requirement. Action to incorporate applicable requirements for insignificant activities into a covered source permit shall be in accordance with section 11-60.1-88.5.

(f) Insignificant activities based on size, emission level, or production rate, are as follows:

- (1) Any storage tank, reservoir, or other container of capacity equal to or less than forty thousand gallons storing volatile organic compounds, except those storage tanks, reservoirs, or other containers subject to any standard or other requirement pursuant to Sections 111 and 112 of the Act;
- (2) Other than smoke house generators and gasoline fired industrial equipment, fuel burning equipment with a heat input capacity less than one million BTU per hour, or a combination of fuel burning equipment operated simultaneously as a single unit having a total combined heat input capacity of less than one million BTU per hour;
- (3) Steam generators, steam superheaters, water boilers, or water heaters, all of which have a heat input capacity of less than five million BTU per hour, and are fired exclusively with one of the following:
 - (A) Natural or synthetic gas;
 - (B) Liquified petroleum gas; or
 - (C) A combination of natural, synthetic, or liquified petroleum gas;
- (4) Kilns used for firing ceramic ware heated exclusively by natural gas, electricity, liquid petroleum gas, or any combination of these and have a heat input capacity of five million BTU per hour or less;
- (5) Standby generators used exclusively to provide electricity, standby sewage pump

drives, and other emergency equipment used to protect the health and welfare of personnel and the public, all of which are used only during power outages, emergency equipment maintenance and testing, and which:

- (A) Are fired exclusively by natural or synthetic gas; or liquified petroleum gas; or fuel oil No. 1 or No. 2; or diesel fuel oil No. 1D or No. 2D; and
- (B) Do not trigger a Prevention of Significant Deterioration (PSD) or covered source review, based on their potential to emit regulated or hazardous air pollutants;
- (6) Paint spray booths that emit less than emission levels specified in paragraph 7 below, except for paint spray booths subject to any standard or other requirement pursuant to Section 112(d) of the Act; and
- (7) Other activities which emit less than:
 - (A) 500 pounds per year of a hazardous air pollutant, except lead;
 - (B) 300 pounds per year of lead;
 - (C) five tons per year of carbon monoxide;
 - (D) 3,500 tons per year CO₂e of greenhouses gases; and
 - (E) two tons per year of each regulated air pollutant not already identified above; and which the director determines to be insignificant on a case-by-case basis.
- (g) Insignificant activities in addition to those listed in subsection (f) are:
 - (1) Welding booths;
 - (2) Hand held equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, or wood, provided reasonable precautions are taken to prevent particulate matter from

- becoming airborne. Reasonable precautions include the use of dust collection systems, dust barriers, or containment systems;
- (3) Laboratory equipment used exclusively for chemical and physical analyses;
 - (4) Containers, reservoirs, or tanks used exclusively for dipping operations for coating objects with oils, waxes, or greases where no organic solvents, diluents, or thinners are used; or dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents;
 - (5) Closed tumblers used for cleaning or deburring metal products without abrasive blasting, and pen tumblers with batch capacity of one thousand pounds or less;
 - (6) Fire water system pump engines dedicated for fire-fighting and maintaining fire water system pressure, which are operated only during fire fighting and periodically for engine maintenance, and fired exclusively by natural or synthetic gas; or liquified petroleum gas; or fuel oil No. 1 or No. 2; or diesel fuel No. 1D or No. 2D;
 - (7) Smoke generating systems used exclusively for training in government or certified fire fighting training facilities;
 - (8) Gasoline fired portable industrial equipment less than 25 horsepower in size;
 - (9) Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots), including equipment used to conduct these activities, provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and are not otherwise subject to an applicable requirement triggering a permit modification;

- (10) Fuel burning equipment which is used in a private dwelling or for space heating, other than internal combustion engines, boilers, or hot furnaces;
- (11) Ovens, stoves, and grills used solely for the purpose of preparing food for human consumption operated in private dwellings, restaurants, or stores;
- (12) Stacks or vents to prevent escape of sewer gases through plumbing traps;
- (13) Consumer use of office equipment and products; and
- (14) Woodworking shops with a sawdust collection system.

(h) The prevention of significant deterioration review requirements of subchapter 7 for new major stationary sources and major modifications are additional requirements for considering an application for a covered source permit. In the event any requirement of subchapter 7 is in conflict with the requirements of this subchapter, the most stringent requirement shall apply.

(i) Any covered source permit, including temporary and general covered source permits, permit renewals, or permit amendments for a modification may be issued only if all of the following conditions are met:

- (1) The owner or operator has submitted a complete covered source permit application;
- (2) Except for minor modifications and administrative amendments, the director has provided for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on the draft covered source permit in accordance with section 11-60.1-99;
- (3) The permit provides for compliance with all applicable requirements and contains the applicable terms and conditions pursuant to 11-60.1-90; and
- (4) The requirements for transmission of information to EPA and EPA oversight have

been satisfied pursuant to sections 11-60.1-94 and 11-60.1-95.

(j) An owner or operator of a stationary source that is not subject to the requirements of subchapter 5 and that becomes subject to the requirements of subchapter 5, or becomes subject to additional requirements of subchapter 5, pursuant to a new or amended regulation under Section 111 or 112 of the Act, HRS chapter 342B, or this chapter shall submit a complete and timely covered source permit application to address the new requirements. For purposes of this subsection, "timely" means:

- (1) by the date required under subchapter 8 or 9 of this chapter, or the applicable federal regulation, whichever deadline is earlier; or
- (2) within twelve months after the effective date of the new or amended regulation, if not specified in the applicable regulation.

The owner or operator of the source may continue to construct or operate and shall not be in violation for failing to have a covered source permit addressing the new requirements only if the owner or operator has submitted to the director a complete and timely covered source permit application, and any additional information that the director deems necessary to evaluate or take final action on the application, including additional information required pursuant to sections 11-60.1-83(d) and 11-60.1-84.

(k) The director, upon written request and submittal of adequate support information from the owner or operator of a covered source, may provide written approval of the following activities to proceed without prior issuance or amendment of a covered source permit. Under no circumstances will these activities be approved if the activity interferes with the imposition of any applicable requirement or the determination of whether a stationary source is subject to any applicable requirement.

- (1) Installation and operation of air pollution control devices. The director may allow the

installation and operation of an air pollution control device prior to issuing a covered source permit or amendment to a covered source permit if the owner or operator of the source can demonstrate that the control device reduces the amount of emissions previously emitted, does not emit any new air pollutants, and does not adversely affect the ambient air quality impact assessment. The owner or operator of the covered source shall submit with the written request, a complete covered source permit application to install and operate the air pollution control device. The application shall include the proposed operating parameters, including any parametric monitoring to ensure that the control device is operating properly.

- (2) Test burns. The director may allow an owner or operator of a covered source to test alternate fuels not allowed by permit if the following conditions are met:
 - (A) The test burn period does not exceed one week, unless the director, upon reasonable justification, approves a longer period, not to exceed three months;
 - (B) The purpose of the test burn is to establish emission rates, to determine if alternate fuels are feasible with the existing covered source facility, or as an investigative measure to research the operational characteristics of a fuel;
 - (C) A stack performance test, a pre-approved monitoring program, or both, if requested by the director, are conducted during the test burn to record and verify emissions;
 - (D) The owner or operator of the covered source provides emission estimates of the test burn and demonstrates that no

violation of the NAAQS and state ambient air quality standards will occur;

- (E) The owner or operator of the covered source demonstrates that the use of the alternate fuel is allowed or not restricted by any applicable requirement, other than the permit condition(s) restricting the alternate fuel use; and
- (F) If a performance test or monitoring is required, the owner or operator of the covered source provides written test or monitoring results within sixty days of the completion of the test burn or such other time as approved by the director. The results shall include the operational parameters of the covered source at the time of the test burn, and any other significant factors that affected the test or monitoring results.

If the director approves the test burn, the director may set operational limitations or other conditions for the test burn.

Deviations from those limits or conditions shall be considered a violation of this chapter. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-22, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-22; 42 U.S.C. §§7407, 7416, 7661A, 7661B; 40 C.F.R. Part 70)

§11-60.1-83 Initial covered source permit application. (a) Every application for an initial covered source permit shall be submitted to the

director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application and to determine the fee requirements specified in subchapter 6. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules and capacities to the extent needed to determine or regulate emissions; specifications and drawings showing the design of the source and plant layout; a detailed description of all processes and products by Standard Industrial Classification Code and source category or categories (as defined in section 11-60.1-171); reasonably anticipated alternative operating scenarios, and processes and products by Standard Industrial Classification Code and source category or categories (as defined in section 11-60.1-171) associated with each alternative operating scenario;
- (3) Information to define permit terms and conditions for any proposed emissions trading within the facility pursuant to section 11-60.1-96;
- (4) Maximum emission rates, including fugitive emissions, of all regulated and hazardous air pollutants and all air pollutants for which the source is major from each emissions unit. If applicable, biogenic CO₂ emissions shall be identified and quantified

separately from other biogenic and non-biogenic greenhouse gas emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For GHGs, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;

- (5) Identification and description of all points of emissions in sufficient detail to establish the basis for fees and applicability of requirements of this chapter and the Act. Information on stack parameters and any stack height limitations developed pursuant to Section 123 of the Act shall also be provided;
- (6) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities as planned by the owner or operator of the source, and to the extent of available information, an estimate of maximum and expected emissions before and after controls, technical information on the design, operation, size, estimated control efficiency, manufacturer's name, address, telephone number, and relevant specifications and drawings;
- (7) Citation and description of all applicable requirements, and a description of or reference to any method and/or applicable test method for determining compliance with each applicable requirement;
- (8) Current operational limitations or work practices, or for covered sources that have not yet begun operation, such limitations or practices which the owner or operator of the source plans to implement that affect emissions of any regulated or hazardous air

pollutants at the source. For sources subject to an Equivalent Maximum Achievable Control Technology limitation pursuant to section 11-60.1-175, a proposed emission limitation consistent with the requirements set forth in section 11-60.1-175;

- (9) All calculations and assumptions on which the information in paragraphs (2), (4), (5), (6), and (8) is based;
- (10) A detailed schedule for construction or reconstruction of the source or modification, if applicable;
- (11) For existing covered sources, an assessment of the ambient air quality impact of the covered source. The assessment shall include all supporting data, calculations and assumptions, and a comparison with the NAAQS and state ambient air quality standards;
- (12) For new covered sources, and significant modifications which increase the emissions of any air pollutant or result in the emission of any air pollutant not previously emitted, an assessment of the ambient air quality impact of the covered source or significant modification, with the inclusion of any available background air quality data. The assessment shall include all supporting data, calculations and assumptions, and a comparison with the NAAQS and state ambient air quality standards;
- (13) For new covered sources or significant modifications subject to the requirements of subchapter 7, all analyses, assessments, monitoring, and other application requirements of subchapter 7;
- (14) If requested by the director, a risk assessment of the air quality related impacts caused by the covered source or significant modification to the surrounding environment;

- (15) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;
- (16) If requested by the director, information on other available control technologies and associated analysis;
- (17) An explanation of all proposed exemptions from any applicable requirement;
- (18) A list of insignificant activities pursuant to section 11-60.1-82(e) to (g);
- (19) A compliance plan in accordance with section 11-60.1-85;
- (20) A source compliance certification in accordance with section 11-60.1-86; and
- (21) Other information:
 - (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) The director shall not continue to act upon or consider any incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required or requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(c) The director shall notify the applicant in writing whether the application is complete:

- (1) For the requirements of subchapter 7, thirty days after receipt of the application; and

- (2) For the requirements of subchapter 5, sixty days after receipt of the application. For purposes of this paragraph, the date of receipt of an application for a new covered source or significant modification subject to the requirements of subchapter 7 shall be the date the application is determined to be complete for the requirements of subchapter 7.

Unless the director requests additional information or notifies the applicant of incompleteness within sixty days after receipt of an application pursuant to paragraph (c)(2), the application shall be deemed complete for the requirements of subchapter 5.

(d) During the processing of an application that has been determined or deemed complete if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(e) Except as provided in section 11-60.1-88 and subsections (f) and (g), the director, in writing, shall approve, conditionally approve, or deny an application for a covered source permit within eighteen months after receipt of a complete application.

(f) The director, in writing, shall approve, conditionally approve, or deny an application containing an early reduction demonstration pursuant to section 112(i)(5) of the Act within nine months after receipt of a complete application.

(g) The director, in writing, shall approve, conditionally approve, or deny an application for a new covered source or significant modification subject to the requirements of subchapter 7 within twelve months after receipt of a complete application.

(h) A covered source permit application for a new covered source or a significant modification shall be approved only if the director determines that the construction or operation of the new covered source or significant modification will be in compliance with

all applicable requirements and will not interfere with attainment or maintenance of a NAAQS.

(i) The director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on the draft covered source permit in accordance with section 11-60.1-99.

(j) The director shall provide a statement that sets forth the legal and factual bases for the draft permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(k) Each application and proposed covered source permit shall be subject to EPA oversight in accordance with section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-23, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70)

§11-60.1-84 Duty to supplement or correct permit applications. Any applicant for a covered source permit who fails to submit any relevant facts or who has submitted incorrect information in any permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to the release of a draft permit. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp:

HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a;
40 C.F.R. Part 70)

§11-60.1-85 Compliance plan. (a) A compliance plan shall be submitted with every initial application for a covered source, temporary covered source, and general covered source permit, application for a covered source permit renewal, and application for a significant modification to a covered source, and at such other times as requested by the director.

(b) The owner or operator of a covered source shall submit to the director for approval a compliance plan which includes at a minimum the following information:

- (1) A description of the compliance status of the existing covered source or proposed source with respect to all the applicable requirements; and
- (2) The following statement or description and compliance schedule, as applicable:
 - (A) For applicable requirements with which the source is in compliance, a statement that the source is in compliance and will continue to comply with such requirements;
 - (B) For applicable requirements which become applicable during the permit term, a statement that the source on a timely basis will meet all such applicable requirements. The statement shall include documentation on the proposed method the owner or operator plans to initiate to obtain compliance; and a compliance schedule demonstrating that the source will meet such applicable requirement by the date specified in the applicable requirement. A detailed schedule shall be provided if required by the applicable requirement; or

- (C) For applicable requirements with which the source is not in compliance, a narrative description of how the source will achieve compliance with all such applicable requirements; and a detailed compliance schedule containing specific milestones of remedial measures to obtain compliance, allowing for an enforceable sequence of actions. Any compliance schedule shall resemble and shall be at least as stringent as any judicial consent decree or administrative order that applies to the source. The schedule shall supplement and shall not sanction noncompliance with the applicable requirements on which the schedule is based.

(c) If a compliance plan is to remedy a violation, a progress report certified pursuant to section 11-60.1-4 shall be submitted to the director no less frequently than every six months and shall include:

- (1) Dates for achieving the activities, milestones, or compliance, and dates when such activities, milestones, or compliance were achieved; and
- (2) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24]
(Auth: HRS §§342B-3, 342B-12, 342B-23; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-23; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70)

§11-60.1-86 Compliance certification of covered sources. (a) A compliance certification shall be submitted with every initial application for a covered source, temporary covered source, and general covered source permit, application for any covered source permit renewal, and application for a significant modification to a covered source, and at such other times as requested by the director. The responsible official of a covered source shall submit to the director and the Administrator a compliance certification which includes at a minimum the following information:

- (1) A detailed description of the methods to be used in determining compliance with all applicable requirements, including any monitoring, recordkeeping, and reporting requirements and test methods;
- (2) A schedule for submission of compliance certifications during the permit term; and
- (3) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements, including the requirements of Section 114(a)(3) of the Act or any applicable monitoring and analysis provisions of Section 504(b) of the Act.

(b) During the permit term, the responsible official of a covered source shall also submit to the director and the Administrator at least annually, or more frequently as set by any applicable requirement, a compliance certification which includes at a minimum the following information:

- (1) The identification of each term or condition of the permit that is the basis of the certification;
- (2) The compliance status;
- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source currently and over the reporting period;

- (5) Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Act or any applicable monitoring and analysis provisions of Section 504(b) of the Act; and
- (6) Any additional information as required by the director including information to determine compliance.

(c) The responsible official, in submitting a compliance certification for insignificant activities, may certify compliance if:

- (1) There were no observed, documented, or known instances of noncompliance during the reporting period where a permit does not require testing, monitoring, recordkeeping, or reporting; or
- (2) The testing, monitoring, or recordkeeping required by permit revealed no violations, and there were no observed, documented, or known instances of noncompliance during the reporting period.

(d) The compliance certification may reference information contained in a previous compliance certification submittal to the director, provided such referenced information has been certified as being current and still applicable.

(e) Notwithstanding the provisions of subsection (b), a compliance certification may be submitted once per year, or more frequently as set by any applicable requirement, if allowed by state statute. Other than the change in the submission period, this subsection does not affect any other requirement of subsection (b). [Eff 11/26/93; comp 10/26/98; comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70)

§11-60.1-87 Transition period. (a) During the transition period, all owners or operators of an existing covered source shall submit to the director a complete initial covered source permit application according to the submission schedule in subsection (f).

(b) During the transition period, the owner or operator of a covered source who has applied for but has not received an authority to construct permit pursuant to repealed chapter 11-60 shall submit to the director a complete and timely covered source permit application (less any authority to construct application fee previously submitted). A covered source permit for the emission unit subject to the authority to construct permit application must be obtained prior to commencement of construction, modification, relocation, or operation.

(c) During the transition period, the owner or operator of a covered source in existence prior to March 21, 1972, or a covered source that has been exempt pursuant to repealed chapter 11-60, may continue to operate and shall not be in violation for failing to have a covered source permit, only if the owner or operator has submitted to the director a complete and timely covered source permit application, and any additional information necessary for the processing of the application, including the additional information specified in section 11-60.1-83(d). The owner or operator shall continue to operate in accordance with any applicable laws, regulations, or rules until the covered source permit is issued or denied.

(d) Except as provided in subsection (e), if an authority to construct or permit to operate expires prior to the issuance of the covered source permit, the owner or operator may continue to construct or operate only if the owner or operator has submitted to the director a complete and timely covered source permit application, and any additional information necessary for the processing of the application,

including the additional information specified in section 11-60.1-83(d). The authority to construct or permit to operate shall continue to be in effect until the covered source permit is issued or denied, provided the owner or operator constructs or operates in accordance with the authority to construct or permit to operate, section 11-60.1-9, and any applicable laws, regulations, or rules in effect at the time of issuance of the authority to construct or permit to operate. Noncompliance with any condition of the authority to construct or permit to operate is considered a violation of this chapter.

(e) In the event an authority to construct or permit to operate expires prior to the required submission date for the initial application:

- (1) The owner or operator may continue construction or operation for the submittal period, provided the owner or operator constructs or operates in accordance with the expired authority to construct or permit to operate, section 11-60.1-9, and any applicable laws, regulations, or rules in effect at the time of issuance of the authority to construct or permit to operate; and
- (2) The owner or operator of the covered source may continue to construct or operate after the required submission date, provided the owner or operator meets the requirements of section 11-60.1-9 and has submitted to the director a complete and timely covered source permit application, and any additional information necessary for the processing of the application, including the additional information specified in section 11-60.1-83(d).

The authority to construct or permit to operate shall continue to be in effect until the covered source permit is issued or denied, provided the owner or operator constructs or operates in accordance with the authority to construct or permit to operate, section 11-60.1-9, and any applicable laws, regulations, or

rules in effect at the time of issuance of the authority to construct or permit to operate. Noncompliance with any condition of the authority to construct or permit to operate is considered a violation of this chapter.

(f) All existing covered sources shall submit an initial covered source permit application according to the following submission schedule:

<u>SICC</u>	<u>Type of Covered Source</u>	<u>Number of months from effective date of this chapter when submission is due</u>
14	Mining and quarrying of nonmetallic minerals, except fuels	Four months
32	Manufacturing stone, clay, glass, and concrete products	Four months
2951	Asphalt paving mixtures and blocks	Four months
2952	Asphalt felts and coatings	Four months
01	Agricultural production	Six months
07	Agricultural services	Six months
49	Electric, gas, and sanitary services	Eight months
	All others	Ten months

The director, upon written request from the owner or operator of a covered source, may extend the application submittal deadline if the director determines that reasonable justification exists for the extension. The written request for an extension shall be submitted at least thirty days prior to the

required submission date and shall include the following information:

- (1) Justification for the extension, including a showing that reasonable effort and resources have been and are being utilized in the preparation of the application;
- (2) Description of the problems being encountered and the reasons for any delays in meeting the application submittal deadline;
- (3) The current status of the covered source permit application; and
- (4) The projected completion date of the covered source application.

If the director disapproves an extension for initial application submittal, the owner or operator shall meet the scheduled submission date. Under no circumstances shall the deadline for submitting an initial covered source application be extended beyond twelve months from the effective date of this chapter.

(g) All covered source permit applications, compliance plans, compliance certifications, and filing fees shall be submitted in accordance with sections 11-60.1-83, 11-60.1-85, and 11-60.1-86 and subchapter 6. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-29, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70)

§11-60.1-88 Action on applications submitted within one year of the effective date of this chapter.

Except for applications for a new covered source or significant modification subject to the requirements of subchapter 7, during the transition period, the director shall approve, conditionally approve, or deny, annually, at least one-third of all complete covered source permit applications submitted within

one year from the effective date of this chapter. The director, in writing, shall approve, conditionally approve, or deny an application for a new covered source or significant modification subject to the requirements of subchapter 7 within twelve months after receipt of a complete application. The director may prioritize the action on the applications submitted. At a minimum, the director shall provide for reasonable procedures and resources to assign priority to applications for any new construction or significant modification of a covered source. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70)

§11-60.1-88.5 Permit action on insignificant activities. The director shall incorporate applicable requirements (if not already incorporated) for insignificant activities into the covered source permit as follows:

- (1) For insignificant activities already identified in a covered source permit application as of the effective date of this section, the director shall incorporate all applicable requirements for insignificant activities at the time of permit renewal;
- (2) For insignificant activities identified in a covered source permit application (e.g. for an initial permit, a minor or significant modification, or permit renewal) on or after the effective date of this section, the director shall incorporate the applicable requirements for insignificant activities at the time of permit issuance; or
- (3) For insignificant activities identified separately as an addendum to a covered source permit application on or after the

effective date of this section, the director may incorporate the applicable requirements for insignificant activities by administrative permit amendment, or at the earliest date a permit action for either a minor or significant modification, or permit renewal is required. [Eff and comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 40 C.F.R. Part 70) (Imp: §§342B-3, 342B-12; 40 C.F.R. Part 70)

§11-60.1-89 Permit term. (a) A covered source permit shall be issued for a fixed term of five years unless the owner or operator of the covered source requests a shorter term.

(b) A covered source permit shall be renewed for a fixed term of five years unless the owner or operator of the covered source requests a shorter term. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-21, 342B-25; 42 U.S.C. §§7407, 7416, 7661a; 42 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-21, 342B-25; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

Historical note: §11-60.1-89 is based substantially upon §11-60-48. [Eff 11/29/82; am, ren §11-60-36 and comp 4/14/86; am and comp 6/29/92; R 11/26/93]

§11-60.1-90 Permit content. The director shall consider and incorporate the following elements into all covered source permits, as applicable:

- (1) Emission limitations and standards, including operational requirements and limitations to assure compliance with all

- applicable requirements at the time of permit issuance;
- (2) Requirements regarding fugitive emissions regardless of whether the source category in question is included in the list of sources contained in the definition of "major source";
 - (3) The origin of and authority for each term or condition and any differences in form as compared to the applicable requirement upon which the term or condition is based;
 - (4) Permit term pursuant to section 11-60.1-89;
 - (5) Requirements for the installation of devices, at the expense of the owner or operator, for the measurement or analysis of source emissions or ambient concentrations of air pollutants;
 - (6) The requirement for source emissions tests or alternative methodology to determine compliance with the terms and conditions of the covered source permit, and applicable requirements. Source emission tests conducted or alternative methodology used shall be at the expense of the owner or operator;
 - (7) All monitoring and related recordkeeping and reporting requirements to assure compliance with all terms and conditions of the permit. Each covered source permit shall address the following with respect to monitoring, recordkeeping, and reporting:
 - (A) All reporting, emissions monitoring and analysis procedures, or test methods, required pursuant to the applicable requirements, including any procedures or methods promulgated pursuant to Section 114(a)(3) or 504(b) of the Act;
 - (B) If the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring, periodic monitoring or recordkeeping sufficient to yield

- reliable data from the relevant time period that is representative of the source's compliance with the permit. Use of terms, test methods, units, averaging periods, and other statistical conventions used for these requirements shall be consistent with applicable requirements;
- (C) Monitoring results expressed in units, averaging periods, and other statistical conventions consistent with the applicable requirements;
 - (D) Requirements concerning the use, maintenance, and installation of monitoring equipment. The installation, operation, and maintenance of the monitoring equipment shall be at the expense of the owner or operator;
 - (E) Appropriate monitoring methods;
 - (F) Monitoring records including:
 - (i) Place as defined in the permit, date, and time of sampling or measurements;
 - (ii) Dates the analyses were performed;
 - (iii) The name and address of the company or entity that performed the analyses;
 - (iv) Analytical techniques or methods used;
 - (v) Analyses results; and
 - (vi) Operating conditions during the time of sampling or measurement;
 - (G) Other records including support information, such as calibration and maintenance records, original stripchart recordings or computer printouts for continuous monitoring instrumentation, and all other reports required by the director;
 - (H) A requirement for the retention of records of all required monitoring data

- and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original stripchart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit;
- (I) A requirement for submission of reports of any required monitoring at least every six months. Deviations from the permit requirements shall be clearly identified and addressed in these reports;
 - (J) A requirement for prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The term "prompt" shall be delineated on a permit-by-permit basis in relation to the degree and type of deviation likely to occur and the applicable requirements; and
 - (K) Provisions for the owner or operator to annually report in writing, emissions of hazardous air pollutants;
- (8) If requested by the owner or operator of a covered source, terms and conditions to allow emissions trading within the facility pursuant to section 11-60.1-96, including provisions to insure compliance with all applicable requirements, and requiring the owner or operator to provide a minimum seven-day advance written notification to the Administrator and director prior to any proposed emissions trading;

- (9) Terms and conditions for reasonably anticipated operating scenarios identified by the source in the covered source permit application as approved by the director. Such terms and conditions shall include:
 - (A) A requirement that the owner or operator, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility the scenario under which it is operating and, if required by any applicable requirement or the director, submit written notification to the director; and
 - (B) Provisions to ensure that the terms and conditions under each alternative scenario meet all applicable requirements;
- (10) General provisions including:
 - (A) A statement that the owner or operator shall comply with all the terms and conditions of the covered source permit and that any permit noncompliance constitutes a violation of this chapter and the Act and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application;
 - (B) A severability clause to ensure the continued validity of the various permit requirements in the event of a challenge to any portion of the permit;
 - (C) A statement that it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of the permit;
 - (D) A statement that the permit may be terminated, suspended, reopened, or

amended for cause pursuant to sections 11-60.1-10 and 11-60.1-98, and section 342B-27, HRS. The filing of a request by the permittee for a permit termination, suspension, reopening, or amendment, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition;

- (E) A statement that the permit does not convey any property rights of any sort, or any exclusive privilege;
- (F) A provision that, if construction is not commenced, continued or completed in accordance with section 11-60.1-9, the covered source permit for the subject emission unit shall become invalid;
- (G) A provision that the owner or operator shall notify the director in writing of the anticipated date of initial start-up for each emission unit of a new covered source or significant modification not more than sixty days or less than thirty days prior to such date. The director shall also be notified in writing of the actual date of construction commencement and start-up within fifteen days after these dates;
- (H) A statement that the owner or operator shall furnish in a timely manner any information or records requested in writing by the department to determine whether cause exists for terminating, suspending, reopening, or amending the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit. For information claimed to be confidential,

the director may require the permittee to furnish such records not only to the department but also directly to the Administrator along with a claim of confidentiality;

(I) A requirement that a copy of applicable correspondence or records submitted to the department be provided to the Administrator;

(J) A provision for the designation of confidentiality of any records pursuant to section 11-60.1-14;

(K) A requirement that the owner or operator shall submit fees in accordance with subchapter 6;

(L) Certification requirements pursuant to section 11-60.1-4;

(M) A requirement that the owner or operator allow the director or an authorized representative, upon presentation of credentials or other documents required by law:

(i) To enter the owner or operator's premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of the permit and request copies of records or copy records required by the permit; and

(ii) To sample or monitor at reasonable times substances or parameters to assure compliance with the permit or applicable requirements; and

- (N) A requirement that at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (11) Compliance plan and compliance certification submittal requirements pursuant to sections 11-60.1-85 and 11-60.1-86; and
- (12) Any other provision to assure compliance with all applicable requirements. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-28, 342B-29, 342B-31, 342B-33, 342B-41; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-28, 342B-29, 342B-31, 342B-33, 342B-41; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c; 40 C.F.R. Part 70)

§11-60.1-91 Temporary covered source permits.

- (a) An owner or operator of a temporary covered source may apply for a temporary covered source permit. The owner or operator of the temporary covered source shall certify its intention to operate

at various locations with the same equipment and similar operational methods.

(b) The application and issuance of a temporary covered source permit is subject to the same procedures and requirements for an initial application and issuance of a covered source permit, including the requirements of section 11-60.1-83. The initial location of the source shall be specified.

(c) On the draft temporary covered source permit, the director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment in accordance with section 11-60.1-99. Each notification shall identify the intent to operate at various locations.

(d) The director shall provide a statement that sets forth the legal and factual bases for the draft temporary covered source permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(e) Each application and proposed temporary covered source permit shall be subject to EPA oversight in accordance with section 11-60.1-95.

(f) Upon issuance of the temporary covered source permit, the owner or operator shall submit all succeeding location changes to the director for approval at least thirty days or such lesser time as designated and approved by the director, prior to the change in location. The owner or operator shall submit sufficient information to enable the director to assess the air quality impact the temporary covered source may have at the new location. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) Temporary covered source permit identification number and expiration date;

- (3) Location map of the new temporary location, identifying the surrounding commercial, industrial, and residential developments;
- (4) Projected dates of operation at the new location;
- (5) Identification of any other air pollution source at the new location; and
- (6) Certification that no modification will be made to the equipment, and operational methods will remain similar as permitted under the temporary covered source permit at the new location.

(g) The director shall not continue to act upon or consider a location change request, unless the following have been submitted:

- (1) All required information as identified in subsection (f);
- (2) Any additional information as requested by the director; and
- (3) Any applicable fee.

(h) Prior to any relocation, the director shall approve, conditionally approve, or deny in writing each location change. If the director denies a location change, the applicant may appeal the decision pursuant to chapter 91, HRS.

(i) With the exception of the initial location, if a source remains in any one location for longer than twelve consecutive months, the director may request an ambient air quality impact assessment of the source.

(j) At each of the authorized locations, the owner or operator shall operate in accordance with the temporary covered source permit and all applicable requirements. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25, 342B-26, 342B-29; 42 U.S.C. §§7407, 7416, 7661a, 7661c, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25, 342B-26, 342B-29; 42 U.S.C. §§7407, 7416, 7661a, 7661c, 7661d; 40 C.F.R. Part 70)

§11-60.1-92 Covered source general permits. (a)

The director, at the director's sole discretion may, after providing for public notice, including the method by which a hearing can be requested, and an opportunity for public comment in accordance with section 11-60.1-99, issue a covered source general permit for similar nonmajor covered sources. The general covered source permit expiration date shall apply to all sources covered under this permit.

(b) The director shall establish criteria and conditional requirements in the covered source general permit by which nonmajor covered sources may qualify for the general permit. Nonmajor covered sources qualifying for a covered source general permit shall, at a minimum, have the same Standard Industrial Classification Code, similar equipment design and air pollution controls, and the same applicable requirements. Under no circumstances shall a general permit be considered for nonmajor covered sources requiring a case-by-case determination for air pollution control requirements (e.g. Best Available Control Technology Determination). The owner or operator of a covered source shall be subject to enforcement action for operating without a permit if the source is later determined not to qualify for the conditions and terms of the general permit.

(c) The owner or operator of a nonmajor covered source requesting coverage for some or all of its emission units under the terms and conditions of the covered source general permit must submit an application to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application and to evaluate the fee requirements specified in subchapter 6. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;

- (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules and capacities to the extent needed to determine or regulate emissions; specifications and drawings showing the design of the source and plant layout; and a detailed description of all processes and products by Standard Industrial Classification Code and source category or categories (as defined in section 11-60.1-171);
 - (3) Maximum emission rates, including fugitive emissions, of all regulated and hazardous air pollutants from each emissions unit. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For GHGs, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;
 - (4) Identification and description of all points of emissions in sufficient detail to establish the basis for fees and applicability of requirements of this chapter and the Act. Information on stack parameters and any stack height limitations developed pursuant to Section 123 of the Act shall also be provided;
 - (5) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities

- as planned by the owner or operator of the source and to the extent of available information, an estimate of maximum and expected emissions before and after controls, technical information on the design, operation, size, estimated control efficiency, manufacturer's name, address, telephone number, and relevant specifications and drawings;
- (6) Citation and description of all applicable requirements and a description of or reference to any method and/or applicable test method for determining compliance with each applicable requirement;
 - (7) Current operational limitations or work practices, or for covered sources that have not yet begun operation, such limitations or practices which the owner or operator of the source plans to implement that affect emissions of any regulated or hazardous air pollutants at the source;
 - (8) All calculations and assumptions on which the information in paragraphs (2), (3), (4), (5), and (7) is based;
 - (9) A detailed schedule for construction or reconstruction of the covered source, if applicable;
 - (10) If requested by the director, an assessment of the ambient air quality impact of the covered source. The assessment shall include all supporting data, calculations and assumptions, and a comparison with the NAAQS and state ambient air quality standards;
 - (11) If requested by the director, a risk assessment of the air quality related impacts caused by the covered source to the surrounding environment;
 - (12) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;

- (13) If requested by the director, information on other available control technologies and associated analysis;
- (14) An explanation of all proposed exemptions from any applicable requirement;
- (15) A list of insignificant activities pursuant to section 11-60.1-82(e) to (g);
- (16) A compliance plan in accordance with section 11-60.1-85;
- (17) A source compliance certification in accordance with section 11-60.1-86; and
- (18) Other information:
 - (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(d) The director shall not continue to act upon or consider an incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (c) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(e) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty days of receipt of an application, the application shall be deemed complete.

(f) During the processing of an application that has been determined or deemed complete if the director

determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(g) The director, in writing, shall approve or deny an application for coverage under a covered source general permit within six months after receipt of a complete application. An application for coverage under a general permit shall be approved only if the director determines that the source seeking coverage meets the criteria and conditional requirements established in the covered source general permit and will be in compliance with all the applicable requirements.

(h) The director may approve an application for coverage under a covered source general permit without repeating the public participation procedures, but such approval shall not be considered the final permit action for purposes of administrative and judicial review pursuant to section 11-60.1-100.

(i) The director shall provide a statement that sets forth the legal and factual bases for the draft permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(j) Each application and proposed covered source general permit shall be subject to EPA oversight in accordance with section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25, 342B-26, 342B-29, 342B-33, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25, 342B-26, 342B-29, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c, 7661d; 40 C.F.R. Part 70)

§11-60.1-93 Federally-enforceable permit terms and conditions. Terms and conditions included in a

covered source permit, including any provision designed to limit a source's potential to emit, are federally enforceable unless such terms, conditions, or requirements are specifically designated as not federally enforceable. Those terms and conditions left undesignated shall become federally enforceable upon permit issuance provided the Administrator does not object during the forty-five-day review pursuant to section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-94 Transmission of information to the Administrator. (a) Except as provided in subsection (c), the director shall submit to the Administrator a copy of each proposed covered source permit and each final covered source permit.

(b) Except as provided in subsection (c), the owner or operator shall simultaneously submit to the Administrator a copy of all covered source permit applications, including any applications for a covered source permit renewal and permit amendment reflecting a proposed minor or significant modification submitted to the director.

(c) By agreement with the Administrator or pursuant to federal regulation, the director may waive the requirements of subsections (a) and (b), or submit summaries for specific categories of nonmajor covered sources.

(d) The department shall maintain records on all covered source permit applications, compliance plans, proposed and final permits, and other relevant information for a minimum of five years. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

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(Imp: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-95 EPA oversight. (a) The director shall not issue a covered source permit, permit renewal, or permit amendment for minor and significant modifications, if the Administrator objects to its issuance in writing within forty-five days of receipt of the proposed covered source permit and all necessary supporting information.

(b) The director shall submit to the Administrator an amended proposed covered source permit within ninety days after receipt of any written objection from the Administrator. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-24; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-96 Operational flexibility. (a) The director shall allow emissions trading and Section 502(b)(10) changes within a permitted facility without requiring a permit amendment, provided:

- (1) The emissions trading or Section 502(b)(10) changes are not modifications pursuant to any provision of Title I of the Act;
- (2) The emissions trading or Section 502(b)(10) changes do not exceed the emissions allowable under the permit;
- (3) The owner or operator of the covered source provides the Administrator and director a seven-day minimum advance written notification of the proposed emissions trading or Section 502(b)(10) changes; and

- (4) The following criteria are exclusively met for emissions trading within the permitted facility:
- (A) An applicable requirement provides for the trading of emissions, or the trading of emissions is solely for the purpose of complying with a federally-enforceable emission cap that is established in the covered source permit independent of otherwise applicable requirements;
 - (B) The applicant requests such emissions trading provisions and includes in the covered source permit application the proposed replicable procedures and permit terms and conditions that ensure the emission trades are quantifiable and enforceable;
 - (C) The director has determined that the provisions for emissions trading ensure that emissions from each emission unit are quantifiable and enforceable; and
 - (D) Any emissions trading is in compliance with all applicable requirements.

(b) The seven-day advance written notification of any proposed emissions trading shall include, at a minimum, the date on which the change will occur, a description of the changes in emissions that will result, the permit requirements with which the source will comply, and how the source will comply with the terms and conditions of the permit and the applicable requirements authorizing the trade.

(c) The seven-day advance written notification of any Section 502(b)(10) changes shall include, at a minimum, a brief description of the proposed change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that will no longer be applicable as a result of the change.

(d) The owner or operator of a covered source and the director shall attach all written notifications of proposed emissions trading and

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Section 502(b)(10) changes to their copy of the relevant permit. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-97 REPEALED. [R 9/15/01]

§11-60.1-98 Permit reopening. (a) The director shall reopen and amend a covered source permit if the director determines that any one of the following circumstances exists:

- (1) Additional applicable requirements pursuant to the Act or this chapter become applicable to a major covered source with a remaining permit term of three or more years. Such permit reopening shall be completed not later than eighteen months after promulgation or adoption of the applicable requirement. No such permit reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the expiration date of the original permit or any of its terms and conditions has been extended pursuant to section 11-60.1-101;
- (2) The permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- (3) The permit must be terminated, suspended, or amended to assure compliance with the applicable requirements.

(b) Procedures to reopen and amend a covered source permit shall be the same as procedures which apply to initial permit issuance in accordance with

section 11-60.1-83 and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) The director shall provide written notification to the permittee on the reopening of the permit indicating the basis for reopening at least thirty days prior to the reopening date, except that the director may provide a shorter time period if it is determined that immediate action on the reopening of the permit is required to prevent an imminent peril to public health and safety or the environment.

(d) If requested by the director, the owner or operator of a covered source shall submit a permit application or information related to the basis of the permit reopening or those provisions affected by the reopening within thirty days of receipt of the permit reopening notice. An extension for the application submittal may be granted by the director if the owner or operator can provide adequate written justification for such an extension.

(e) If the Administrator notifies the director of any cause to terminate, suspend, reopen, or amend a permit, the director shall submit to the Administrator within ninety days of receipt of such written notification, or within such other times as required by the Administrator, a proposed determination of termination, suspension, reopening, or amendment as appropriate.

(f) If the Administrator objects to the director's proposed determination, the director shall terminate, suspend, reopen, or amend the permit in accordance with the Administrator's objection within ninety days from receipt of a written objection. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-99 Public participation. (a) Except for administrative permit amendments and permit amendments reflecting certain minor modifications, the director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on all draft covered source permits for:

- (1) initial issuance;
- (2) renewal;
- (3) significant modification; or
- (4) minor modifications to major stationary sources that result in a net emissions increase, as defined in 40 CFR Part 52.21, equal to or exceeding fifty percent of the significant amounts of emissions in the definition of significant in section 11-60.1-131, paragraph (1) of the definition.

(b) Any person requesting a public hearing shall do so during the public comment period. Any request from a person for a public hearing shall indicate the interest of the person filing the request and the reasons why a public hearing is warranted.

(c) Procedures for public notice, public comment periods, and public hearings shall be as follows:

- (1) The director shall make available for public inspection in at least one location in the county affected by the proposed action, or in which the source is or would be located:
 - (A) Information on the subject matter;
 - (B) Information submitted by the applicant, except for that determined to be confidential pursuant to section 11-60.1-14;
 - (C) The department's analysis and proposed action; and
 - (D) Other information and documents determined to be appropriate by the department;
- (2) Notification of a public hearing shall be given at least thirty days in advance of the hearing date;

- (3) A public comment period shall be no less than thirty days following the date of the public notice, during which time interested persons may submit to the department written comments on:
 - (A) The subject matter;
 - (B) The application;
 - (C) The department's analysis;
 - (D) The proposed actions; and
 - (E) Other considerations as determined to be appropriate by the department;
- (4) Notification of a public comment period or a public hearing shall be made:
 - (A) By publication in a newspaper which is printed and issued at least twice weekly in the county affected by the proposed action, or in which the source is or would be located;
 - (B) To persons on a mailing list developed by the director, including those who request in writing to be on the list; and
 - (C) If necessary by other means to assure adequate notice to the affected public;
- (5) Notice of public comment and public hearing shall identify:
 - (A) The affected facility;
 - (B) The name and address of the permittee;
 - (C) The name and address of the agency of the department processing the permit;
 - (D) The activity or activities involved in the permit action;
 - (E) The emissions change involved in any permit amendment reflecting a modification to the covered source;
 - (F) The name, address, and telephone number of a person from whom interested persons may obtain additional information, including copies of the draft permit, the application, all relevant supporting materials including any compliance plan, and monitoring and

- compliance certification reports, and all other materials available to the department that are relevant to the permit decision, except for information that is determined to be confidential, including information determined to be confidential pursuant to section 11-60.1-14;
- (G) A brief description of the comment procedures;
 - (H) The time and place of any hearing that may be held, including a statement of procedures to request a hearing if one has not already been scheduled; and
 - (I) The availability of the information listed in paragraph (1), and the location and times the information will be available for inspection; and
- (6) The director shall maintain a record of the commenters and the issues raised during the public participation process and shall provide this information to the Administrator upon request. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§92F-11, 92F-12, 342B-3, 342B-12, 342B-13, 342B-31; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70) (Imp: HRS §§92F-11, 92F-12 342B-3, 342B-12, 342B-13, 342B-31; 42 U.S.C. §§7407, 7416, 7661a, 7661b; 40 C.F.R. Part 70)

§11-60.1-100 Public petitions. (a) A person may object to the issuance of any proposed covered source permit by petitioning the Administrator pursuant to 40 CFR Section 70.8(d).

(b) If the Administrator objects to the proposed covered source permit as a result of a public petition, the director shall not issue the permit

until the Administrator's objection has been resolved. However, a permit that was issued after the end of the forty-five-day review period and prior to the Administrator's objection, and except as provided in subsection (h), shall remain in effect at least until the objection is resolved. If the Administrator amends or terminates the permit based on the public petition, the director may issue only an amended permit that satisfies the Administrator's objection. If an amended permit is issued by the director, the owner or operator of the source shall not be in violation of the requirement to have submitted a timely and complete application.

(c) The applicant and any person who participated in the public comment or hearing process and objects to the grant or denial of a covered source permit or permit amendment may petition the department for a contested case hearing by submitting a written request to the director.

(d) The petition shall be based solely upon objections to the covered source permit that were raised with reasonable specificity during the public participation process, unless the petitioner demonstrates that it was impracticable to raise such objections; for example, the grounds for such objections arose after the public participation process.

(e) Any petitioner shall file a petition for a contested case hearing within ninety days of the date of the department's approval or disapproval of the proposed draft permit.

(f) Notwithstanding the provisions of subsection (e), if based solely on objections which were impracticable to raise during the public participation process, a petition for a contested case hearing may be filed up to ninety days after the objections could be reasonably raised.

(g) Except as provided in subsection (h), any covered source permit that has been issued shall not be invalidated by a petition for a contested case hearing. If an amended covered source permit is issued by the director, the owner or operator of the

source shall not be in violation of the requirement to have submitted a timely and complete application.

(h) The effective date of a covered source permit for a new covered source or significant modification subject to the requirements of subchapter 7 shall be as specified in 40 CFR Part 124.15.

(i) Any person may petition for a contested case hearing for the director's failure to take final action on an application for a covered source permit, covered source permit renewal, or covered source permit amendment within the time required by this chapter. Such petition shall be submitted in writing and may be filed any time before the director issues a proposed draft permit or denies the application for a covered source permit, covered source permit renewal, or covered source permit amendment.

(j) Any person aggrieved by a final administrative decision and order, including the denial of any contested case hearing, may petition for judicial review pursuant to section 91-14, HRS. A petition for judicial review shall be filed no later than thirty days after service of the certified copy of the final administrative decision and order. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-101 Covered source permit renewal applications. (a) Every application and issuance of a covered source permit renewal is subject to the same requirements for an initial application of a covered source permit including requirements of section 11-60.1-83. Applications shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application and to determine the fee requirements

specified in subchapter 6. Information submitted shall include:

- (1) Name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;
- (2) Statement certifying that no changes have been made in the design or operation of the source as proposed in the initial and any subsequent covered source permit applications. If changes have occurred or are being proposed, the applicant shall provide a description of those changes such as work practices, operations, equipment design, and monitoring procedures, including the affected applicable requirements associated with the changes and the corresponding information to determine the applicability of all applicable requirements;
- (3) A compliance plan in accordance with section 11-60.1-85;
- (4) A source compliance certification in accordance with section 11-60.1-86; and
- (5) Other information:
 - (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
 - (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) Each permit renewal application shall be submitted to the director no fewer than twelve months and no more than eighteen months prior to the permit expiration date. The director may allow a permit renewal application to be submitted no fewer than six

months prior to the permit expiration date, if the director determines that there is reasonable justification.

(c) The director shall not continue to act upon or consider an incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(d) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within sixty days of receipt of an application, the application shall be deemed complete.

(e) During the processing of an application that has been determined or deemed complete, if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response. As set forth in section 11-60.1-82, the covered source ability to operate and the validity of the covered source permit shall continue beyond the permit expiration date until the final permit is issued or denied, provided the applicant submits all additional information within the reasonable deadline specified by the director.

(f) Except for applications for renewal for coverage under a covered source general permit, the director, in writing, shall approve, conditionally approve, or deny an application for renewal of a covered source permit within twelve months after receipt of a complete application. If the application for renewal has not been approved or denied within

twelve months after a complete application is received, the covered source permit and all its terms and conditions shall remain in effect and not expire until the application for renewal has been approved or denied and provided the applicant has submitted any additional information within the reasonable deadline specified by the director.

(g) For applications for renewal requesting coverage under a covered source general permit, the director shall approve or deny an application for renewal within six months after receipt of a complete application. If the application for renewal has not been approved or denied within six months after a complete application is received, the coverage under the covered source general permit and all its terms and conditions shall remain in effect and not expire until the application for renewal has been approved or denied and provided the applicant has submitted any additional information within the reasonable deadline specified by the director.

(h) A covered source permit renewal application shall be approved only if the director determines that the operation of the covered source will be in compliance with all applicable requirements.

(i) The director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on the draft covered source permit renewal in accordance with section 11-60.1-99.

(j) The director shall provide a statement that sets forth the legal and factual bases for the draft permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(k) Each application for renewal and proposed covered source permit shall be subject to EPA oversight in accordance with section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-13, 342B-22, 342B-23, 342B-24, 342B-25, 342B-26, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70)

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(Imp: HRS §§342B-3, 342B-12, 342B-13, 342B-22, 342B-23, 342B-24, 342B-25, 342B-26, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661d; 40 C.F.R. Part 70)

§11-60.1-102 Administrative permit amendment.

(a) The director, at the director's sole discretion or upon written request from the owner or operator of a covered source, may issue an administrative permit amendment.

(b) Except for a request to consolidate two or more covered source permits into one or to change ownership or operational control, an owner or operator requesting an administrative permit amendment may make the requested change immediately upon submittal of the request.

(c) Within sixty days of receipt of a written request for an administrative permit amendment, the director shall take final action on the request and may amend the permit without providing notice to the public provided the director designates any such permit amendments as having been made pursuant to this section.

(d) The department shall submit a copy of the amended covered source permit to the Administrator. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-27; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-27; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-103 Applications for minor modifications. (a) Every application for a minor modification to a covered source shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the

application and to determine the fee requirements specified in subchapter 6. Information submitted shall include:

- (1) A clear description of all changes;
- (2) A statement of why the modification is determined to be minor, and a request that minor modification procedures be used;
- (3) Maximum emission rates, including fugitive emissions, of all regulated and hazardous air pollutants resulting from the change. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas emissions. Emission rates shall be reported in pounds per hour and tons per year and in such terms necessary to establish compliance consistent with applicable requirements and standard reference test methods. For GHGs, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;
- (4) The identification of any new applicable requirements that will apply if the minor modification occurs;
- (5) The suggested changes to permit terms or conditions;
- (6) Certification by a responsible official that the proposed modification meets the criteria for minor modification;
- (7) All information submitted with the application for the initial covered source permit or any subsequent application for a covered source permit. The owner or operator may reference information contained in a previous application submittal, provided such referenced information has been certified as being current and still applicable; and
- (8) Other information, as required by any applicable requirement or as requested and

deemed necessary by the director to make a decision on the application.

(b) The director shall not continue to act upon or consider an incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4; and
- (3) All applicable fees have been submitted.

(c) The director shall notify the applicant in writing whether the application is complete. Unless the director requests additional information or notifies the applicant of incompleteness within thirty days of receipt of an application, the application shall be deemed complete.

(d) During the processing of an application, if the director determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(e) Within ninety days of receipt of a complete application for a minor modification, or within fifteen days after the end of the Administrator's forty-five-day review period, whichever is later, the director in writing shall:

- (1) Amend the permit to reflect the minor modification as proposed;
- (2) Deny the minor modification;
- (3) Determine that the requested modification does not meet the minor modification criteria, and should be reviewed under the significant modification procedures; or
- (4) Amend the proposed permit and resubmit the amendment to EPA for reevaluation.

(f) An application for a minor modification to a covered source shall be approved only if the director

determines that the minor modification will be in compliance with all applicable requirements.

(g) The director shall provide a statement that sets forth the legal and factual bases for the proposed permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(h) Each application and proposed permit reflecting the minor modification to a covered source shall be subject to EPA oversight in accordance with section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-23, 342B-24, 342B-25; 42 U.S.C. §§7407, 7416, 7661a, 7661d; 40 C.F.R. Part 70)

§11-60.1-104 Applications for significant modifications. (a) Every application for a significant modification to a covered source is subject to the same requirements as for an initial covered source permit application pursuant to §11-60.1-83 as it pertains to the proposed significant modification. Applications shall be submitted to the director on forms furnished by the director. The applicant shall submit sufficient information to enable the director to make a decision on the application and to determine the fee requirements specified in subchapter 6. Information submitted shall include:

- (1) The name, address, and phone number of:
 - (A) The company;
 - (B) The facility, if different from the company;
 - (C) The owner and owner's agent; and
 - (D) The plant site manager or other contact;

- (2) A description of the significant modification, identifying all proposed changes, including any changes to the source operations, work practices, equipment design, source emissions, or any monitoring, recordkeeping, and reporting procedures;
- (3) A description of the nature, location, design capacity, production capacity, production rates, fuels, fuel use, raw materials, and typical operating schedules and capacities to the extent needed to determine or regulate emissions of any proposed addition or modification of any source of emissions; specifications and drawings showing the design of the source and plant layout; a detailed description of all processes and products by Standard Industrial Classification Code and source category or categories (as defined in section 11-60.1-171) affected by the proposed modification; reasonably anticipated alternative operating scenarios, and processes and products by Standard Industrial Classification Code and source category or categories (as defined in section 11-60.1-171) associated with each alternative operating scenario affected by the proposed modification;
- (4) Information to define permit terms and conditions for any proposed emissions trading within the facility pursuant to section 11-60.1-96;
- (5) Maximum emissions rates, including fugitive emissions, of all regulated and hazardous air pollutants and all air pollutants for which the source is major from each emissions unit related to the modification. If applicable, biogenic CO₂ emissions shall be identified and quantified separately from other biogenic and non-biogenic greenhouse gas emissions. Emission rates shall be reported in pounds per hour and tons per

- year and in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods. For GHGs, emission rates shall also be reported in CO₂e tons per year. All supporting emission calculations and assumptions shall also be provided;
- (6) Identification and description of all points of emissions in sufficient detail to establish the basis for fees and applicability of requirements of this chapter and the Act. Information on stack parameters and any stack height limitations developed pursuant to Section 123 of the Act shall also be provided;
 - (7) Identification and detailed description of air pollution control equipment and compliance monitoring devices or activities as planned by the owner or operator of the source or modification, and to the extent of available information, an estimate of maximum and expected emissions before and after controls, technical information on the design, operation, size, estimated control efficiency, manufacturer's name, address, telephone number, and relevant specifications and drawings;
 - (8) Citation and description of all applicable requirements, and a description of or reference to any method and/or applicable test method for determining compliance with each applicable requirement;
 - (9) Operational limitations or work practices which the owner or operator of the source plans to implement that affect emissions of any regulated or hazardous air pollutants at the source. For sources subject to an Equivalent Maximum Achievable Control Technology limitation pursuant to section 11-60.1-175, a proposed emission limitation consistent with the requirements set forth in section 11-60.1-175;

- (10) All calculations and assumptions on which the information in paragraphs (3), (5), (6), (7), and (9) is based;
- (11) A detailed schedule for construction or reconstruction of the source or modification;
- (12) For significant modifications which increase the emissions of any air pollutant or result in the emission of any air pollutant not previously emitted, an assessment of the ambient air quality impact of the covered source with the inclusion of any available background air quality data. The assessment shall include all supporting data, calculations and assumptions, and a comparison with the NAAQS and state ambient air quality standards;
- (13) For new covered sources or significant modifications subject to the requirements of subchapter 7, all analyses, assessments, monitoring, and other application requirements of subchapter 7;
- (14) If requested by the director, a risk assessment of the air quality related impacts caused by the covered source or significant modification to the surrounding environment;
- (15) If requested by the director, results of source emission testing, ambient air quality monitoring, or both;
- (16) If requested by the director, information on other available control technologies and associated analysis;
- (17) An explanation of all proposed exemptions from any applicable requirement;
- (18) A list of any new insignificant activities pursuant to section 11-60.1-82(e) to (g);
- (19) A compliance plan in accordance with section 11-60.1-85;
- (20) A source compliance certification in accordance with section 11-60.1-86; and
- (21) Other information:

- (A) As required by any applicable requirement or as requested and deemed necessary by the director to make a decision on the application; and
- (B) As may be necessary to implement and enforce other applicable requirements of the Act or of this chapter or to determine the applicability of such requirements.

(b) The director shall not continue to act upon or consider an incomplete application. An application shall be determined to be complete only when all of the following have been complied with:

- (1) All information required and requested pursuant to subsection (a) has been submitted;
- (2) All documents requiring certification have been certified pursuant to section 11-60.1-4;
- (3) All applicable fees have been submitted; and
- (4) The director has certified that the application is complete.

(c) The director shall notify the applicant in writing whether the application is complete:

- (1) For the requirements of subchapter 7, thirty days after receipt of the application; and
- (2) For the requirements of subchapter 5, sixty days after receipt of the application. For purposes of this paragraph, the date of receipt of an application for a new covered source or significant modification subject to the requirements of subchapter 7 shall be the date the application is determined to be complete for the requirements of subchapter 7.

Unless the director requests additional information or notifies the applicant of incompleteness within sixty days after receipt of an application pursuant to paragraph (c)(2), the application shall be deemed complete for the requirements of subchapter 5.

(d) During the processing of an application that has been determined or deemed complete if the director

determines that additional information is necessary to evaluate or take final action on the application, the director may request such information in writing and set a reasonable deadline for a response.

(e) Except as provided in section 11-60.1-88 and subsections (f) and (g), the director, in writing, shall approve, conditionally approve, or deny an application for a significant modification within eighteen months after receipt of a complete application.

(f) The director, in writing, shall approve, conditionally approve, or deny an application containing an early reduction demonstration pursuant to Section 112(i)(5) of the Act within nine months after receipt of a complete application.

(g) The director, in writing, shall approve, conditionally approve, or deny an application for a new covered source or significant modification subject to the requirements of subchapter 7 within twelve months after receipt of a complete application.

(h) The director shall provide reasonable procedures and resources to complete the review of the majority of the applications for a significant modification within nine months after receipt of a complete application. An application for significant modification shall be approved only if the director determines that the significant modification will be in compliance with all applicable requirements and will not interfere with attainment or maintenance of the NAAQS.

(i) The director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on the draft significant modification to the covered source in accordance with section 11-60.1-99.

(j) The director shall provide a statement that sets forth the legal and factual bases for the draft permit conditions (including references to the applicable statutory or regulatory provisions) to EPA and any other person requesting it.

(k) Each application for a significant modification, and the proposed covered source permit

reflecting the significant modification shall be subject to EPA oversight in accordance with section 11-60.1-95. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-13, 342B-23, 342B-24, 342B-25, 342B-29, 342B-33, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c, 7661d; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-13, 342B-23, 342B-24, 342B-25, 342B-29, 342B-33; 42 U.S.C. §§7407, 7416, 7661a, 7661b, 7661c, 7661d; 40 C.F.R. Part 70)

SUBCHAPTER 6

FEES FOR COVERED SOURCES, NONCOVERED SOURCES,

AND AGRICULTURAL BURNING

§11-60.1-111 Definitions. As used in this subchapter:

"Actual emissions" means the actual rate of emissions of a regulated or hazardous air pollutant from a stationary source. Actual emissions for a time period as specified by the director shall equal the average rate in pounds per hour at which the stationary source actually emitted the pollutant during the specified time period, and which is representative of the source's actual operation. The director shall allow the use of a different time period upon a determination that it is more representative of the actual operation of a source. Actual emissions shall be calculated using the source's actual operating hours, production rates, and amounts of materials processed, stored, or combusted during the selected time period. Other parameters may be used in the calculation of actual emissions if approved by the director.

"Air permit application" means a noncovered or covered source permit application.

"Air permit program" means the program established pursuant to part III of chapter 342B, HRS, and this chapter.

"Allowable emission rate" means the quantity of regulated or hazardous air pollutant that may be emitted (per unit of time, tons of production, or other parameter) as established by an air permit limitation or an applicable requirement that establishes an emission limit.

"Annual fee" means the fee imposed on each owner or operator of a stationary source on an annual basis.

"AP-42" means EPA's compilation of air pollutant emission factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, and its associated supplements and appendices.

"Application fee" means the fee imposed on an owner or operator of:

- (1) A stationary source upon the filing of any air permit application; or
- (2) An agricultural operation upon the filing of any agricultural burning permit application.

"Closure fee" means the annual fee that an owner or operator of a stationary source is assessed for the last year a source is in operation before permanent discontinuance.

"Covered source permit application" means an application for an initial covered source permit, a renewal of a covered source permit, a permit amendment for any modification to a covered source, or the written request filed for a change in location of a temporary covered source, or an administrative permit amendment to a covered source permit.

"Dollar per ton charge" means the dollar fee charge per ton of regulated air pollutant emitted, and the dollar fee charge per CO₂e ton of greenhouse gas emitted.

"Fee worksheets" means the forms provided by the director to aid the owner or operator of a stationary source in the calculation of annual fees.

"Major modification" has the same meaning as in section 11-60.1-131.

"Minor modification" has the same meaning as in section 11-60.1-81.

"Non-toxic pollutant" means any pollutant that is not a toxic pollutant.

"Non-toxic source" means a stationary source that is not a toxic source.

"Noncovered source permit application" means an application for an initial noncovered source permit, a renewal of a noncovered source permit, a permit amendment for any modification to a noncovered source, or the written request for a change in location of a temporary noncovered source, or an administrative permit amendment to a noncovered source permit.

"PSD source" means a source subject to the requirements of subchapter 7.

"Significant modification" has the same meaning as in section 11-60.1-81.

"Toxic pollutant" means any hazardous air pollutant listed pursuant to Section 112(b) of the Act, and any other hazardous air pollutant designated by this chapter.

"Toxic source" means:

- (1) A major covered source that emits or has the potential to emit any hazardous air pollutant, except radionuclides, in the aggregate of ten tons per year or more, or twenty-five tons per year or more of any combination;
- (2) A covered source that is subject to an emission standard or other requirement for hazardous air pollutants approved pursuant to Section 112 of the Act, with the exception of those sources solely subject to regulations or requirements approved pursuant to Section 112(r) of the Act; or
- (3) A noncovered source that emits or has the potential to emit two tons per year or more of any hazardous air pollutant or five tons per year or more of any combination.

"Verifiable documentation" means a record, certified pursuant to section 11-60.1-4, that best substantiates the operating characteristic or

parameters of a stationary source. Records identified as verifiable documentation may include fuel usage records, production records, or other records that can be substantiated through the use of non-resetting fuel or hour meters, appropriate testing, and other methods or devices, as required or deemed acceptable by the director. Records may be deemed unacceptable by the director if found to be erroneous, incomplete, inaccurate, or inconsistent. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

§11-60.1-112 General fee provisions for covered sources. (a) Every applicant for a covered source permit shall pay an application fee as set forth in section 11-60.1-113.

(b) Except as provided in subsection (h) below, every owner or operator of a covered source shall pay an annual fee as set forth in section 11-60.1-114.

(c) All application and annual fees collected pursuant to this chapter shall be used to cover the direct and indirect costs to develop, support, and administer the air permit program.

(d) All application fees for covered sources shall be submitted by check or money order made payable to the Clean Air Special Fund-COV, and are not refundable, except as otherwise provided in this subchapter.

(e) All annual fees for covered sources required by this chapter shall be submitted by check or money order, made payable to:

- (1) The Clean Air Special Fund-COV, for fees determined by the dollar per ton charge pursuant to sections 11-60.1-114(i) (1), (3) and (4), and (j); and
- (2) The Clean Air Special Fund-NON, for fees determined by the dollar per ton charge

pursuant to sections 11-60.1-114(i) (2), (3) and (5), and (j); and are not refundable, except for any amount that constitutes an overpayment, as determined by the director.

(f) Checks returned for any reason (e.g., insufficient funds, closed account, etc.) shall be considered a failure to pay. Returned checks are subject to an additional \$25 handling charge. If a returned check results in a late payment, the owner or operator shall also be assessed a late payment penalty in accordance with section 11-60.1-114(m).

(g) The department shall reevaluate the provisions of this subchapter at least every three years to ensure that adequate fees are being generated to cover the direct and indirect costs to develop, support, and administer the air permit program. If fee adjustments are required based on the director's reevaluation, the director shall afford the opportunity for public comment in accordance with chapters 91 and 342B, HRS. Any fee adjustments pursuant to subsection 11-60.1-114(j), and fee waivers allowed in subsection (h) below, shall not require that the director afford the opportunity for public comment in accordance with chapters 91 and 342B, HRS.

(h) With EPA's approval, the director may waive annual fees due from owners or operators of covered sources for the following calendar year, provided that funds in excess of \$6 million will exist in the Clean Air Special Fund-COV account as of the end of the current calendar year. Nothing in this subsection shall be construed to allow a waiver of any application fee, or a waiver of any other requirements under this chapter, including reporting requirements, such as annual emissions reporting. The owner or operator of a covered source shall continue to report the source's actual emissions of regulated air pollutants, including toxic pollutants, in tons per year. For greenhouse gases, biogenic CO₂ emissions shall be identified separately; and actual emissions shall be reported in both mass tons and CO₂e tons of each greenhouse gas emitted (e.g., carbon dioxide,

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nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride), and the resulting total mass tons and CO₂e tons emitted. The emissions report shall show the method, assumptions, emissions factors, and calculations used to obtain the tons per year emissions of each regulated air pollutant, including the CO₂e tons of GHGs. The reporting of annual emissions shall be submitted within the time frame specified in the applicable permit. [Eff 11/26/93; am and comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-113 Application fees for covered

sources. (a) An application fee shall be submitted with the covered source permit application and shall not be refunded or applied to any subsequent application, except for any amount that constitutes an overpayment, as determined by the director. No covered source permit application shall be deemed complete unless the application fee is paid in full.

(b) The fee schedule for filing a covered source permit application shall be as follows:

- (1) PSD sources:
 - (A) Initial permit \$10,000
 - (B) Major modification \$10,000
- (2) Major non-toxic sources:
 - (A) Initial permit \$ 4,000
 - (B) Renewal \$ 3,000
 - (C) Administrative permit amendment \$ 100
 - (D) Minor modification \$ 200
 - (E) Significant modification resulting in an increase of emissions less than:
 - (i) forty tpy of any

- regulated air pollutant
 - other than hazardous air
 - pollutants and GHGs,
 - (ii) one tpy of any hazardous
 - air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 1,000
 - (F) Significant modification
 - resulting in an increase of
 - emissions greater than or equal
 - to:
 - (i) forty tpy of any
 - regulated air pollutant
 - other than hazardous air
 - pollutants and GHGs,
 - (ii) one tpy of
 - any hazardous air
 - pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 2,000
- (3) Nonmajor non-toxic sources:
- (A) Initial permit \$ 1,000
- (B) Renewal \$ 500
- (C) Administrative permit
- amendment \$ 100
- (D) Minor modification \$ 100
- (E) Significant modification
- resulting in an increase of
- emissions less than:
- (i) forty tpy of any
- regulated air pollutant
- other than hazardous air
- pollutants and GHGs,
- (ii) one tpy of any hazardous
- air pollutant, or
- (iii) 40,000 tpy CO₂e of GHGs \$ 500
- (F) Significant modification
- resulting in an increase of
- emissions greater than or equal
- to:
- (i) forty tpy of any
- regulated air pollutant
- other than hazardous air
- pollutants and GHGs,

- (ii) one tpy of any hazardous air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 1,000
- (4) Temporary covered sources:
 - (A) Initial permit for a non-toxic source \$ 1,000
 - (B) Initial permit for a toxic source \$ 2,000
 - (C) Renewal of a non-toxic source \$ 500
 - (D) Renewal of a toxic source \$ 1,000
 - (E) Change in location for a non-toxic source \$ 100
 - (F) Change in location for a toxic source \$ 300
 - (G) Administrative permit amendment \$ 100
 - (H) Minor modification for a non-toxic source \$ 100
 - (I) Minor modification for a toxic source \$ 200
 - (J) Significant modification for a non-toxic source resulting in an increase of emissions less than:
 - (i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,
 - (ii) one tpy of any hazardous air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 500
 - (K) Significant modification for a non-toxic source resulting in an increase of emissions greater than or equal to:
 - (i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,
 - (ii) one tpy of

- any hazardous air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 1,000
- (L) Significant modification for a toxic source resulting in an increase of emissions less than:
 - (i) one tpy of any hazardous air pollutant,
 - (ii) 40,000 tpy CO₂e of GHGs, or
 - (iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs \$ 1,000
- (M) Significant modification for a toxic source resulting in an increase of emissions greater than or equal to:
 - (i) one tpy of any hazardous air pollutant,
 - (ii) 40,000 tpy CO₂e of GHGs, or
 - (iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs \$ 2,000
- (5) Sources seeking coverage under a general covered source permit:
 - (A) Initial permit \$40 for each remaining year before expiration of a general permit at the time of application submittal. Any fraction of a remaining year shall be rounded up to the next full year.
 - (B) Renewal \$ 100
 - (C) Administrative permit amendment \$ 50
- (6) Major toxic sources:
 - (A) Initial permit \$ 5,000
 - (B) Renewal \$ 3,000
 - (C) Administrative permit

	amendment	\$ 100
(D)	Minor modification	\$ 200
(E)	Significant modification resulting in an increase of emissions less than:	
	(i) one tpy of any hazardous air pollutant,	
	(ii) 40,000 tpy CO ₂ e of GHGs, or	
	(iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs	\$ 1,000
(F)	Significant modification resulting in an increase of emissions greater than or equal to:	
	(i) one tpy of any hazardous air pollutant,	
	(ii) 40,000 tpy CO ₂ e of GHGs, or	
	(iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs	\$ 3,000
(7)	Nonmajor toxic sources:	
(A)	Initial permit	\$ 2,000
(B)	Renewal	\$ 1,000
(C)	Administrative permit amendment	\$ 100
(D)	Minor modification	\$ 200
(E)	Significant modification resulting in an increase of emissions less than:	
	(i) one tpy of any hazardous air pollutant,	
	(ii) 40,000 tpy CO ₂ e of GHGs, or	
	(iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs	\$ 1,000
(F)	Significant modification resulting in an increase of emissions greater than or equal	

to:

- (i) one tpy of any hazardous air pollutant,
- (ii) 40,000 tpy CO₂e of GHGs, or
- (iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs \$ 2,000

(c) Except for individual sources having or seeking coverage under a general covered source permit, if a covered source can be categorized under two or more types of sources listed in the fee schedule, the owner or operator of that source shall pay the highest application fee that is applicable to the source.

(d) If a modification changes the classification of a source, the modification fee shall no longer apply. The fee associated with the initial permit for the new source category shall apply. For example, a modification to a nonmajor covered source which triggers a major covered source review shall be subject to the fee associated with the initial permit for a major covered source and not to the fee associated with a nonmajor covered source modification.

(e) An application fee for an administrative permit amendment shall be assessed only if the administrative change is requested by the owner or operator of the covered source. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-114 Annual fees for covered sources.

(a) Except as specified in subsection 11-60.1-112(h), subsection (b), and below, an annual fee shall be paid in full within the first one-hundred twenty days of

each calendar year and a closure fee shall be paid within thirty days after the permanent discontinuance of the covered source.

(b) The director, at the director's sole discretion, or upon written request from the owner or operator of a covered source, may extend the annual fee submittal deadline if the director determines that reasonable justification exists for the extension. The owner or operator's written request for an extension shall be submitted at least fifteen days prior to the required submission due date, unless the director with reasonable justification approves a lesser period, and shall include the following information:

- (1) Justification for the extension, including a showing that reasonable effort and resources have been and are being utilized in the calculation of annual emissions and the corresponding annual fee as calculated pursuant to this section;
- (2) Description of the problems being encountered and reasons for any delays in meeting the annual fee deadline;
- (3) The current status of emission calculations; and
- (4) The projected date of submitting the annual fee.

If the director disapproves an extension for submitting the annual fee, the owner or operator shall pay the required annual fee within thirty days of receipt of the disapproval notice or by the original submittal deadline, whichever is later. If the director approves an extension for submitting the annual fee, the owner or operator shall pay the required annual fee by the extended approved date. Any part of the annual fee that is not paid within the required time shall at once be assessed the late penalty fee pursuant to subsection (m).

(c) An annual fee due within the first one-hundred twenty days of each calendar year shall be based upon the tons of regulated air pollutants

emitted during the prior calendar year, except that GHGs shall be based on the total CO₂e tons emitted.

(d) A closure fee due within thirty days after the permanent discontinuance of the covered source shall be based upon the tons of regulated air pollutants emitted during the year of permanent discontinuance, except that GHGs shall be based on the total CO₂e tons emitted.

(e) An annual fee due within the first one-hundred twenty days of a particular calendar year shall be referred to as the annual fee for that particular year. For example, the 2001 annual fee shall be due within the first one-hundred twenty days of calendar year 2001 and shall be based on regulated air pollutants emitted in 2000.

(f) An annual fee shall be assessed for each ton or CO₂e ton of regulated air pollutant emitted by a covered source except for:

- (1) Carbon monoxide emissions;
- (2) Fugitive emissions if fugitive emissions are not included in the applicable requirements or AP-42; and
- (3) Emissions from insignificant activities listed in subsections 11-60.1-82(f) and (g).

(g) The annual fee assessed for each regulated air pollutant shall be determined by multiplying the appropriate dollar per ton charge pursuant to subsections (i) and (j) by the covered source emissions in tons or CO₂e tons per year pursuant to section 11-60.1-115. The dollar per ton charge assessed for all regulated air pollutants (both toxic and non-toxic) shall be determined pursuant to the following subsections:

<u>Annual Fees Due</u>	<u>Subsection(s)</u>
Prior to 2002	As provided for in subchapter 6, amended October 26, 1998
2002, except GHGs	(i)(1) and (2)
2003 and thereafter, except GHGs	(i)(1) and (2), and (j)

2015 for GHGs	(i) (4) and (5)
2016 and thereafter for GHGs	(i) (4) and (5), and (j)

(h) The submittal of an additional annual fee determined by the dollar per ton charge pursuant to paragraph(i) (3) and subsection (j) for toxic pollutants shall begin as established by rulemaking.

(i) The dollar per ton charge for each regulated air pollutant emitted by a covered source shall be as follows:

- (1) All regulated pollutants, except GHGs (toxic and non-toxic)- \$39.00 per ton (made payable to the Clean Air Special Fund-COV);
- (2) All regulated pollutants, except GHGs (toxic and non-toxic) - \$9.50 per ton (made payable to the Clean Air Special Fund-NON);
- (3) Toxic pollutant emissions - additional charge to be set by rulemaking specifically for regulated toxic pollutants;
- (4) GHGs, including biogenic CO₂, nitrous oxide, and methane emissions - \$ 0.07 per CO₂e ton (made payable to the Clean Air Special Fund-COV); and
- (5) GHGs, including biogenic CO₂, nitrous oxide, and methane emissions - \$ 0.05 per CO₂e ton (made payable to the Clean Air Special Fund-NON).

(j) On January 1, 2002 and at the beginning of each subsequent year, the previous dollar per ton charge shall be adjusted by the percentage, if any, by which the consumer price index for the last calendar year exceeds the consumer price index for the calendar year before. The consumer price index for any calendar year is the average of the consumer price index for all urban consumers published by the United States Department of Labor, as of the close of the twelve-month period ending on August 31 of each calendar year. The adjusted annual fee rate shall be applied to those air pollutants emitted during the same calendar year.

(k) When submitting the annual fee, the owner or operator of a covered source shall submit a written report of emissions of all regulated air pollutants (toxic and non-toxic).

(l) The minimum annual fee shall be \$500 for each covered source facility in operation or each valid covered source permit held during the prior calendar year, or \$42 per month for any fraction of the year the covered source facility was in operation or the covered source permit was valid. For purposes of this subsection, "covered source facility" means a covered source under common control of the same person or persons that is located on one or more contiguous or adjacent properties.

(m) If any part of the annual fee is not paid within thirty days after the due date, a late payment penalty of five percent of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each calendar month during which any part of the annual fee or any prior accrued late payment penalty remains unpaid, an additional late payment penalty of five percent of the then unpaid balance shall accrue and be added thereto.

(n) If any annual fee, including the late payment penalty required by this chapter is not paid in full within thirty days after the due date, the director may terminate or suspend any or all of the owner or operator's covered source permits, after affording the opportunity for a hearing in accordance with chapters 91 and 342B, HRS.

(o) The owner or operator of a covered source may at any time request a meeting with the department to discuss the annual fee assessment or the computational methods used to determine the annual fee. If the owner or operator still feels that the annual fee is being miscalculated after meeting with the department, the owner or operator may request a contested case hearing in accordance with chapters 91 and 342B, HRS. [Eff 11/26/93; am and comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24]
(Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-71, 342B-

§11-60.1-114

72, 342B-73; 42 U.S.C. §§7407, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-115 Basis of annual fees for covered sources. (a) For purposes of calculating annual fees for covered sources under section 11-60.1-114, the covered source actual emissions in tons and CO₂e tons per year shall be determined by using the following parameters:

- (1) Data from continuous emission monitoring (CEMS) or predictive emission monitoring (PEM) certified in accordance with the applicable EPA Performance Specifications shall always be used if available. The PEM data shall not be used if CEMS data is available;
- (2) An emission factor derived from the actual rate of emissions as substantiated through stack test reports, continuous emissions monitoring data, or any other certified record as deemed acceptable by the director;
- (3) The actual production, operating hours, amount of materials processed or stored, or fuel usage of the covered source during the prior calendar year the annual fee is due. Other operating parameters of the covered source may be used in the fee calculation if approved by the director; and
- (4) If not already included in the emission factor identified in paragraph (1), a percentage reduction factor based upon the efficiency of the air pollution control equipment, as provided by AP-42 or any verifiable documentation demonstrating the actual performance of the air pollution control equipment.

(b) If an actual rate of emissions referenced in paragraph (a)(1) cannot be substantiated, the allowable emission rate shall be used to calculate the

total annual tonnage of pollutants emitted. If an allowable emission rate is not specified in an air permit or an applicable requirement, the appropriate permit application or AP-42 air pollutant emission factor; 40 CFR Part 98, Mandatory GHG Reporting methodology or emission factor shall be used. If the owner or operator of a covered source cannot provide verifiable documentation on the parameters referenced in paragraph (a)(2), the maximum allowable production, operating hours, amount of material processed or stored, or fuel usage shall be used in calculating the total annual tonnage or CO₂e tonnage of regulated air pollutants emitted from the covered source. For GHG emissions, results, methodologies, and emission factors used in complying with 40 CFR Part 98, Mandatory GHG Reporting, are acceptable for reporting actual emissions for the individual emission units, provided appropriate unit conversions are made, and verifiable documentation is provided for any on-site measured parameter used in the calculation. Any fraction of a ton or CO₂e ton calculated shall be disregarded for fee purposes. Only the annual tonnage in whole tons of each regulated air pollutant or whole CO₂e ton for GHGs shall constitute the basis of annual fees.

(c) The annual fee shall be calculated on fee worksheets furnished by the director. If a fee worksheet is not available for a particular covered source, the owner or operator of a covered source shall provide their own worksheet showing the method, assumptions, emission factors, and calculations used to obtain the total annual emissions in tons and CO₂e tons per year, for each regulated air pollutant emitted, as applicable. [Eff 11/26/93; am and comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

§11-60.1-116 REPEALED. [R 9/15/01]

§11-60.1-117 General fee provisions for noncovered sources. (a) Every applicant for a noncovered source permit shall pay an application fee pursuant to section 11-60.1-118.

(b) Except as specified in subsection (e) below, every owner or operator of a noncovered source for which a permit is required under section 11-60.1-62 shall pay an annual fee as set forth in section 11-60.1-119.

(c) All application and annual fees for noncovered sources required by this chapter shall be submitted by check or money order made payable to the Clean Air Special Fund-NON, and are not refundable, except for any amount that constitutes an overpayment, as determined by the director.

(d) Checks returned for any reason (e.g., insufficient funds, closed account, etc.) shall be considered a failure to pay. Returned checks are subject to an additional \$25 handling charge. If a returned check results in a late payment, the owner or operator shall also be assessed a late payment penalty in accordance with section 11-60.1-119(g).

(e) Upon the approval of a waiver for covered source annual fees pursuant to section 11-60.1-112(h), the director may waive the annual fees due from owners or operators of noncovered sources. The waiver shall be for the same calendar year as the annual fee waiver for the covered sources. Nothing in this subsection shall be construed to allow a waiver of any application fee, or a waiver of any other requirements under this chapter, including reporting requirements, such as annual emissions reporting as required by permit. [Eff 11/26/93; am and comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416)

§11-60.1-118 Application fees for noncovered sources. (a) An application fee shall be submitted with the noncovered source permit application and shall not be applied to any subsequent application, except for any amount that constitutes an overpayment, as determined by the director. No noncovered source permit application shall be deemed complete unless the application fee is paid in full.

(b) The fee schedule for filing a noncovered source permit application shall be as follows:

- (1) Non-toxic sources:
 - (A) Initial permit \$ 150
 - (B) Renewal \$ 100
 - (C) Administrative permit amendment \$ 50
 - (D) Modification resulting in an increase of emissions less than:
 - (i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,
 - (ii) one tpy of any hazardous air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 100
 - (E) Modification resulting in an increase of emissions greater than or equal to:
 - (i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,
 - (ii) one tpy of any hazardous air pollutant, or
 - (iii) 40,000 tpy CO₂e of GHGs \$ 150
- (2) Temporary noncovered sources:
 - (A) Initial permit for a non-toxic source \$ 150
 - (B) Initial permit for a toxic

	source	\$	200
(C)	Renewal of a non-toxic source	\$	100
(D)	Renewal of a toxic source	\$	150
(E)	Change in location for a non-toxic source	\$	50
(F)	Change in location for a toxic source	\$	100
(G)	Administrative permit amendment	\$	50
(H)	Modification to a non-toxic source resulting in an increase of emissions less than:		
	(i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,		
	(ii) one tpy of any hazardous air pollutant, or		
	(iii) 40,000 tpy CO ₂ e of GHGs	\$	100
(I)	Modification to a non-toxic source resulting in an increase of emissions greater than or equal to:		
	(i) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs,		
	(ii) one tpy of any hazardous air pollutant, or		
	(iii) 40,000 tpy CO ₂ e of GHGs	\$	150
(J)	Modification to a toxic source resulting in an increase of emissions less than:		
	(i) one tpy of any hazardous air pollutant,		
	(ii) 40,000 tpy CO ₂ e of GHGs, or		
	(iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs	\$	150

- (K) Modification to a toxic source resulting in an increase of emissions greater than or equal to:
 - (i) one tpy of any hazardous air pollutant,
 - (ii) 40,000 tpy CO₂e of GHGs, or
 - (iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs \$ 200
- (3) Sources seeking coverage under a general noncovered source permit:
 - (A) Initial permit \$20 for each remaining year before expiration of a general permit at the time of application submittal. Any fraction of a remaining year shall be rounded up to the next full year.
 - (B) Renewal \$ 50
 - (C) Administrative permit amendment \$ 25
- (4) Toxic sources:
 - (A) Initial permit \$ 200
 - (B) Renewal \$ 150
 - (C) Administrative permit amendment \$ 50
 - (D) Modification resulting in an increase of emissions less than:
 - (i) one tpy of any hazardous air pollutant,
 - (ii) 40,000 tpy CO₂e of GHGs, or
 - (iii) forty tpy of any regulated air pollutant other than hazardous air pollutants and GHGs \$ 150
 - (E) Modification resulting in an increase of emissions greater than or equal to:
 - (i) one tpy of any hazardous

- air pollutant,
- (ii) 40,000 tpy CO₂e of GHGs, or
- (iii) forty tpy of any regulated
air pollutant other than
hazardous air pollutants
and GHGs \$ 200

(c) Except for individual sources seeking coverage under a general noncovered source permit, if a noncovered source can be categorized under two or more types of sources listed in the fee schedule, the owner or operator of that source shall pay the highest application fee that is applicable to the source.

(d) If a modification changes the classification of a source, the modification fee shall no longer apply. The fee associated with the initial permit for the new source category shall apply. For example, a modification triggering a covered source review will be subject to the fee associated with the initial permit for a covered source and not to the fee associated with a noncovered source modification.

(e) An application fee for an administrative permit amendment shall be assessed only if the administrative permit amendment is requested by the owner or operator of the noncovered source. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416)

§11-60.1-119 Annual fees for noncovered sources.

(a) Except as specified in section 11-60.1-117(e), an annual fee shall be paid in full within the first sixty days of each calendar year and a closure fee shall be paid within thirty days after the permanent discontinuance of the noncovered source.

(b) The director, at the director's sole discretion, or upon written request from the owner or operator of a noncovered source, may extend the annual

fee submittal deadline if the director determines that reasonable justification exists for the extension. The owner or operator's written request for an extension shall be submitted at least fifteen days prior to the required submission due date, unless the director with reasonable justification approves a lesser period, and shall include the following information:

- (1) Justification for the extension;
- (2) Description of the problems being encountered and reasons for any delays in meeting the annual fee deadline; and
- (3) The projected date of submitting the annual fee.

If the director disapproves an extension for submitting the annual fee, the owner or operator shall pay the required annual fee within thirty days of receipt of the disapproval notice or by the original submittal deadline, whichever is later. If the director approves an extension for submitting the annual fee, the owner or operator shall pay the required annual fee by the extended approved date.

(c) An annual fee, due within the first sixty days of each calendar year, shall be imposed on an owner or operator who has a valid noncovered source permit or permit to operate during the prior calendar year.

(d) A closure fee due within thirty days after permanent discontinuance of the noncovered source shall be based upon the months the noncovered source permit or permit to operate was valid during the year of permanent discontinuance. Any fraction of a month shall be deemed a full month.

(e) An annual fee due within sixty days of a particular calendar year shall be referred to as the annual fee for that particular year. For example, the 2001 annual fee shall be due within the first sixty days of calendar year 2001 and shall be imposed on an owner or operator of a noncovered source having a valid noncovered source permit or permit to operate in 2000.

(f) The owner or operator of a noncovered source shall be assessed an annual fee of \$500 for each valid permit to operate (issued pursuant to repealed chapter 11-60) or each noncovered source permit held during the prior calendar year, or \$42 per month for any fraction of the year the permit to operate or noncovered source permit is valid.

(g) If any part of the annual fee is not paid within thirty days after the due date, a late payment penalty of five percent of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each calendar month during which any part of the annual fee or any prior accrued late payment penalty remains unpaid, an additional late payment penalty of five percent of the then unpaid balance shall accrue and be added thereto.

(h) If any annual fee, including the late payment penalty required by this chapter, is not paid in full within thirty days after the due date, the director may terminate or suspend any or all of the owner or operator's noncovered source permits, after affording the opportunity for a hearing in accordance with chapters 91 and 342B, HRS. [Eff 11/26/93; am and comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12, 342B-29; 42 U.S.C. §§7407, 7416)

§11-60.1-120 REPEALED. [R 9/15/01]

§11-60.1-121 Application fees for agricultural burning permits. (a) Every applicant for an agricultural burning permit shall pay an application fee pursuant to this section. The application fee shall be made payable to the Clean Air Special Fund-NON.

(b) An application fee shall be submitted with the application for an agricultural burning permit and shall not be refunded nor applied to any subsequent application. No application for an agricultural burning permit shall be acted upon or considered unless the application fee is paid in full.

(c) Checks returned for any reason (e.g., insufficient funds, closed account, etc.) shall be considered a failure to pay. Returned checks are subject to an additional \$15 handling charge.

(d) From the effective date of this chapter, the fee schedule for filing an agricultural burning permit shall be as follows:

- | | |
|---|----------|
| (1) Less than ten acres | \$ 50 |
| (2) Ten to less than one hundred acres | \$ 150 |
| (3) One hundred to less than one thousand acres | \$ 750 |
| (4) One thousand or more acres | \$ 1,500 |

(e) The acreage shall be the total acreage designated to be burned or cleared for burning as specified in the permit. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14; comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416)

SUBCHAPTER 7

PREVENTION OF SIGNIFICANT DETERIORATION REVIEW

§11-60.1-131 Definitions. All of the definitions in 40 CFR 52.21(b) as they existed on May 1, 2023 are hereby incorporated by reference. This section incorporates these definitions to support the implementation of 40 CFR Section 52.21, Prevention of Significant Deterioration of Air Quality. Selected definitions are included here for convenience. If a conflict is found, the definition in 40 CFR Section 52.21 shall apply.

"Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase as defined in 40 CFR 52.21(b)(40) of a regulated NSR pollutant, and a significant net emissions increase as defined in 40 CFR 52.21(b)(3) of that pollutant from the major stationary source. Any significant emissions increase from any emissions unit or net emissions increase at a major stationary source that is significant for volatile organic compounds or nitrogen oxides shall be considered significant for ozone.

A physical change or change in the method of operation shall not include:

- (1) Routine maintenance, repair, and replacement;
- (2) Use of an alternative fuel or raw material by reason of an order pursuant to Sections 2(a) and 2(b) of the Energy Supply and Environmental Coordination Act of 1974 or any superseding legislation or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (3) Use of an alternative fuel by reason of an order or rule under Section 125 of the Act;
- (4) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- (5) Use of an alternative fuel or raw material by a stationary source which:
 - (A) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited pursuant to any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR Section 52.21 or to regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR Section 51.166; or
 - (B) The source is approved to use under any permit issued pursuant to 40 CFR

- Section 52.21 or regulations approved pursuant to 40 CFR Section 51.166;
- (6) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR Section 52.21 or regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR Section 51.166;
 - (7) Any change in ownership at a stationary source;
 - (8) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project as defined in 40 CFR 52.21(b)(36), provided the project complies with:
 - (A) Hawaii state implementation plan; and
 - (B) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated;
 - (9) The installation or operation of a permanent clean coal technology demonstration project as defined in 40 CFR 52.21(b)(34-35) that constitutes repowering as defined in 40 CFR 52.21(b)(37), provided that the project does not result in an increase in the potential to emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis; or
 - (10) The reactivation of a very clean coal-fired electric utility steam generating unit as defined in 40 CFR 52.21(b)(38);

This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under 40 CFR Paragraph 52.21(aa) for a Plant Applicability Limitation (PAL) for that pollutant. Instead, the definition at 40 CFR Paragraph 52.21(aa)(2)(viii) shall apply.

"Major stationary source" means:

- (1) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, one hundred tons per year or more of any regulated NSR pollutant other than the pollutant greenhouse gases:
 - (A) Fossil fuel fired steam electric plants of more than two hundred fifty million BTU per hour heat input;
 - (B) Coal cleaning plants (with thermal dryers);
 - (C) Kraft pulp mills;
 - (D) Portland cement plants;
 - (E) Primary zinc smelters;
 - (F) Iron and steel mills;
 - (G) Primary aluminum ore reduction plants (with thermal dryers);
 - (H) Primary copper smelters;
 - (I) Municipal incinerators capable of charging more than two hundred fifty tons of refuse per day;
 - (J) Hydrofluoric, sulfuric, and nitric acid plants;
 - (K) Petroleum refineries;
 - (L) Lime plants;
 - (M) Phosphate rock processing plants;
 - (N) Coke oven batteries;
 - (O) Sulfur recovery plants;
 - (P) Carbon black plants (furnace process);
 - (Q) Primary lead smelters;
 - (R) Fuel conversion plants;
 - (S) Sintering plants;
 - (T) Secondary metal production plants;
 - (U) Chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140);
 - (V) Fossil fuel boilers (or combinations thereof) totaling more than two hundred fifty million BTU per hour heat input;

- (W) Petroleum storage and transfer units with a total storage capacity exceeding three hundred thousand barrels;
- (X) Taconite ore processing plants;
- (Y) Glass fiber processing plants; and
- (Z) Charcoal production plants;
- (2) Notwithstanding the stationary source size specified in this definition, any stationary source which emits, or has the potential to emit two hundred fifty tons per year or more of a regulated NSR pollutant other than the pollutant greenhouse gases; or
- (3) Any physical change that would occur at a stationary source not otherwise qualifying under this definition as a major stationary source, if the changes would constitute a major stationary source by itself.

A major stationary source that is major for volatile organic compounds or nitrogen oxides shall be considered major for ozone. The fugitive emissions of a stationary source shall not be included in determining whether the source is a major stationary source, unless the source belongs to one of the following categories of stationary sources:

- (1) Coal cleaning plants (with thermal dryers);
- (2) Kraft pulp mills;
- (3) Portland cement plants;
- (4) Primary zinc smelters;
- (5) Iron and steel mills;
- (6) Primary aluminum ore reduction plants;
- (7) Primary copper smelters;
- (8) Municipal incinerators capable of charging more than two hundred fifty tons of refuse per day;
- (9) Hydrofluoric, sulfuric, or nitric acid plants;
- (10) Petroleum refineries;
- (11) Lime plants;
- (12) Phosphate rock processing plants;
- (13) Coke oven batteries;
- (14) Sulfur recovery plants;
- (15) Carbon black plants (furnace process);

- (16) Primary lead smelters;
- (17) Fuel conversion plants;
- (18) Sintering plants;
- (19) Secondary metal production plants;
- (20) Chemical process plants - the term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
- (21) Fossil fuel boilers (or combination thereof) totaling more than two hundred fifty million BTU per hour heat input;
- (22) Petroleum storage and transfer units with a total storage capacity exceeding three hundred thousand barrels;
- (23) Taconite ore processing plants;
- (24) Glass fiber processing plants;
- (25) Charcoal production plants;
- (26) Fossil fuel fired steam electric plants of more than two hundred fifty million BTU per hour heat input; and
- (27) Any other stationary source category which, as of August 7, 1980, is being regulated under Section 111 or 112 of the Act.

"NSR" means New Source Review and is synonymous to PSD Review.

"Regulated NSR pollutant" means the following:

- (1) Any pollutant for which a national ambient air quality standard has been promulgated and any pollutant identified under this paragraph as a constituent or precursor for such pollutant. Precursors identified by the Administrator for purposes of NSR are the following:
 - (A) Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas;
 - (B) Sulfur dioxide is a precursor to PM_{2.5} in all attainment and unclassifiable areas; and
 - (C) Nitrogen oxides are presumed to be precursors to PM_{2.5} in all attainment and

unclassifiable areas.

- (2) Any pollutant that is subject to any standard promulgated under section 111 of the Act;
- (3) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act;
- (4) Any pollutant that otherwise is subject to regulation under the Act as defined in this subchapter.
- (5) Notwithstanding paragraphs (1) through (4) of this definition, the term "regulated NSR pollutant" shall not include any or all hazardous air pollutants either listed in section 112 of the Act, or added to the list pursuant to section 112(b)(2) of the Act, and which have not been delisted pursuant to section 112(b)(3) of the Act, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act.
- (6) PM_{2.5} and PM₁₀ emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. Compliance with emissions limitations for PM_{2.5} and PM₁₀ issued prior to January 1, 2011 shall not be based on condensable particulate matter unless required by the terms and conditions of the permit or the Hawaii state implementation plan. Applicability determinations made prior to January 1, 2011 without accounting for condensable particulate matter shall not be considered in violation of this subchapter.

"Significant" means in reference to a net emissions increase or the potential of a source to emit any of the following pollutants:

- (1) A rate of emissions that would equal or exceed any of the following pollutant emission rates:

- (A) Carbon monoxide: one hundred tpy;
- (B) Nitrogen oxides: forty tpy;
- (C) Sulfur dioxide: forty tpy;
- (D) Particulate matter: twenty-five tpy of particulate matter emissions;
- (E) PM₁₀: fifteen tpy;
- (F) PM_{2.5}: ten tpy of direct PM_{2.5} emissions; forty tpy of sulfur dioxide emissions; forty tpy of nitrogen oxide emissions unless demonstrated not to be a PM_{2.5} precursor under 40 CFR 52.21(b) (50);
- (G) Ozone: forty tpy of volatile organic compounds or nitrogen oxides;
- (H) Lead: 0.6 tpy;
- (I) Fluorides: three tpy;
- (J) Sulfuric acid mist: seven tpy;
- (K) Hydrogen sulfide (H₂S): ten tpy;
- (L) Total reduced sulfur (including H₂S): ten tpy;
- (M) Reduced sulfur compounds (including H₂S): ten tpy;
- (N) Municipal waste combustor organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans): 3.2×10^{-6} megagrams per year (3.5×10^{-6} tpy);
- (O) Municipal waste combustor metals (measured as particulate matter): fourteen megagrams per year (fifteen tpy);
- (P) Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): thirty-six megagrams per year (forty tpy);
- (Q) Municipal solid waste landfills emissions (measured as nonmethane organic compounds): forty-five megagrams per year (50 tpy); or
- (R) Greenhouse gases: as specified in paragraphs (3) and (4) under the

definition of "Subject to Regulation" of this subchapter.

- (2) Any net emissions increase or the potential of a major stationary source to emit a regulated NSR pollutant that is not listed in paragraph (1), any emissions rate.
- (3) Notwithstanding paragraph (1), any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within ten kilometers of a Class I area, and have an impact on such area equal to or greater than 1 $\mu\text{g}/\text{m}^3$, (twenty-four-hour average).

"Subject to Regulation" means for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable regulation codified in Title 40 CFR Chapter I, Subchapter C, Air Programs, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that:

- (1) Greenhouse gases (GHGs), the air pollutant defined in 40 CFR Subsection 86.1818-12(a) as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation except as provided in paragraph(4) of this definition and shall not be subject to regulation if the stationary source maintains its total source-wide emissions below the GHG PAL level, meets the requirements of paragraphs 40 CFR 52.21(aa)(1) through(15), and complies with the PAL permit containing the GHG PAL.
- (2) For purposes of paragraphs (3) and (4) of this definition, the term tpy CO₂ equivalent emissions (CO₂e) shall represent an amount of

GHGs emitted, and shall be computed as follows:

- (A) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of 40 CFR Part 98-Global Warming Potentials.
 - (B) Sum the resultant value from paragraph (2)(A) above for each gas to compute a tpy CO₂e.
- (3) The term "emissions increase" as used in paragraph (4) of this definition shall mean that both a significant emissions increase (as calculated using the procedures in 40 CFR 52.21(a)(2)(iv)) and a significant net emissions increase (as defined in 40 CFR 52.21(b)(3) and (b)(23)) occur. For the pollutant GHGs, an emissions increase shall be based on tpy CO₂e, and shall be calculated assuming the pollutant GHGs is a regulated NSR pollutant, and "significant" is defined as 75,000 tpy CO₂e instead of applying the value in 40 CFR 52.21(b)(23)(ii).
- (4) GHGs are subject to regulation for major stationary source prevention of significant deterioration permits as follows:
- (A) For existing stationary sources, GHGs are subject to regulation (GHG BACT analysis) only if:
 - (i) the stationary source is major due to the potential to emit of a non-GHG pollutant;
 - (ii) the project would cause both a significant emissions increase and significant net emissions increase for a non-GHG pollutant; and
 - (iii) the project would cause both CO₂e emissions increase and CO₂e net emissions increase equal to or greater than 75,000 tpy.

- (B) For new stationary sources, GHGs are subject to regulation (BACT analysis for GHGs) only if the stationary source:
 - (i) is major due to the potential to emit another pollutant; and
 - (ii) would have the potential to emit equal to or greater than 75,000 tpy of CO₂e emissions. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7475; 40 C.F.R. Part 52) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7475; 40 C.F.R. Part 52)

§11-60.1-132 Source applicability. (a) This subchapter incorporates by reference, provisions of 40 CFR Section 52.21, Prevention of Significant Deterioration of Air Quality, as it existed on May 1, 2023 and applies to owners or operators planning to construct a major stationary source or to make a major modification to such a stationary source. Provisions of 40 CFR Section 52.21 are additional requirements for considering an application for a covered source permit required by subchapter 5.

(b) No stationary source or modification to which the requirements of this subchapter apply shall begin actual construction without a covered source permit which states that the stationary source or modification would meet the requirements of 40 CFR Section 52.21. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14; am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7475; 40 C.F.R. Part

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52) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7475; 40 C.F.R. Part 52)

§11-60.1-133 REPEALED. [R 6/30/14]

§11-60.1-134 REPEALED. [R 6/30/14]

§11-60.1-135 REPEALED. [R 6/30/14]

§11-60.1-136 REPEALED. [R 6/30/14]

§11-60.1-137 REPEALED. [R 6/30/14]

§11-60.1-138 REPEALED. [R 6/30/14]

§11-60.1-139 REPEALED. [R 6/30/14]

§11-60.1-140 REPEALED. [R 6/30/14]

§11-60.1-141 REPEALED. [R 6/30/14]

§11-60.1-142 REPEALED. [R 6/30/14]

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§11-60.1-161

§11-60.1-143 REPEALED. [R 6/30/14]

§11-60.1-144 REPEALED. [R 6/30/14]

§11-60.1-145 REPEALED. [R 6/30/14]

§11-60.1-146 REPEALED. [R 6/30/14]

§11-60.1-147 REPEALED. [R 6/30/14]

§11-60.1-148 REPEALED. [R 6/30/14]

§11-60.1-149 REPEALED. [R 6/30/14]

§11-60.1-150 REPEALED. [R 6/30/14]

SUBCHAPTER 8

STANDARDS OF PERFORMANCE FOR STATIONARY SOURCES

§11-60.1-161 New source performance standards.

- (a) This section applies to an owner or operator

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subject to a promulgated federal standard of performance for new stationary sources. An owner or operator of an affected facility shall comply with all applicable provisions of 40 CFR Part 60, entitled "Standards of Performance for New Stationary Sources," including the following subparts:

- (1) Subpart A, General Provisions;
- (2) Subpart D, Standards of Performance for Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971;
- (3) Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978;
- (4) Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units;
- (5) Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units;
- (6) Subpart E, Standards of Performance for Incinerators;
- (7) Subpart Ea, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994;
- (8) Subpart Eb, Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996;
- (9) Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996;
- (10) Subpart F, Standards of Performance for Portland Cement Plants;
- (11) Subpart I, Standards of Performance for Hot Mix Asphalt Facilities;

- (12) Subpart J, Standards of Performance for Petroleum Refineries;
- (13) Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007;
- (14) Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978;
- (15) Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984;
- (16) Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984;
- (17) Subpart O, Standards of Performance for Sewage Treatment Plants;
- (18) Subpart Y, Standards of Performance for Coal Preparation Plants;
- (19) Subpart AA, Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983;
- (20) Subpart AAa, Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983;
- (21) Subpart GG, Standards of Performance for Stationary Gas Turbines;
- (22) Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture;
- (23) Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or

- Modification Commenced After January 5, 1981, and on or Before November 7, 2006;
- (24) Subpart VVa, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006;
 - (25) Subpart WW, Standards of Performance for the Beverage Can Surface Coating Industry;
 - (26) Subpart XX, Standards of Performance for Bulk Gasoline Terminals;
 - (27) Subpart GGG, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006;
 - (28) Subpart GGGa, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006;
 - (29) Subpart JJJ, Standards of Performance for Petroleum Dry Cleaners;
 - (30) Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations;
 - (31) Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants;
 - (32) Subpart QQQ, Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems;
 - (33) Subpart VVV, Standards of Performance for Polymeric Coating of Supporting Substrates Facilities;
 - (34) Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills;
 - (35) Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That

- Commenced Construction, Reconstruction, or Modification After July 17, 2014;
- (36) Subpart AAAA, Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction Commenced After June 6, 2001;
 - (37) Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units;
 - (38) Subpart EEEE, Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006;
 - (39) Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines;
 - (40) Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines;
 - (41) Subpart KKKK, Standards of Performance for Stationary Combustion Turbines;
 - (42) Subpart LLLL, Standards of Performance for New Sewage Sludge Incineration Units; and
 - (43) Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units.

(b) Any owner or operator who constructs, reconstructs, modifies, or operates an affected facility subject to covered source permitting is subject to the application and permitting requirements of subchapter 5. If there is a conflict between the application deadlines in subchapter 5 and the applicable federal standard, the earlier deadline shall apply. Each federal standard of performance for new stationary sources (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of

subchapter 5, Covered Sources. If there is a conflict between an applicable requirement of subchapter 5, or any other subchapter of these rules, and the applicable federal standard, the most stringent requirement shall apply. "Affected facility" as used in this section shall have the same meaning as in 40 CFR §60.2.

(c) Any owner or operator who constructs, reconstructs, modifies, or operates an affected facility subject to noncovered source permitting requirements is subject to the application and permitting requirements of subchapter 4. Each federal standard of performance for new stationary sources (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 4, Noncovered Sources. "Affected facility" as used in this section shall have the same meaning as in 40 CFR §60.2. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Part 60) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Part 60)

§11-60.1-162 REPEALED. [R 9/15/01]

§11-60.1-163 Federal plans. (a) This section applies to an owner or operator subject to a promulgated federal plan for designated or affected facilities, where the facility is not covered by an EPA approved state plan. "State plan" as used in this subsection means a plan submitted pursuant to section 111(d) and section 129(b)(2) of the Clean Air Act and 40 CFR Part 60, subpart B that implements and enforces 40 CFR Part 60, subpart C.

(b) An owner or operator of a designated or affected facility, as defined in the applicable federal plan, shall comply with all applicable requirements of the federal plan, including the following:

- (1) 40 CFR Part 62, Subpart FFF, Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or Before September 20, 1994;
- (2) 40 CFR Part 62, Subpart GGG, Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991;
- (3) 40 CFR Part 62, Subpart HHH, Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed on or Before June 20, 1996;
- (4) 40 CFR Part 62, Subpart III, Federal Plan Requirements for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or Before November 30, 1999;
- (5) 40 CFR Part 62, Subpart JJJ, Federal Plan Requirements for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999;
- (6) 40 CFR Part 62, Subpart LLL, Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or Before October 14, 2010; and
- (7) 40 CFR Part 62, Subpart OOO, Federal Plan Requirements for Municipal Solid Waste Landfills that Commenced Construction on or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014.

(c) Any owner or operator who constructs, reconstructs, modifies, or operates a designated or affected facility subject to covered source permitting is subject to the application and permitting requirements of subchapter 5. Each federal plan for

designated or affected facilities (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 5, Covered Sources.

(d) Any owner or operator who constructs, reconstructs, modifies, or operates an affected facility subject to noncovered source permitting requirements is subject to the application and permitting requirements of subchapter 4. Each federal plan for designated or affected facilities (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 4, Noncovered Sources. [Eff and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416, 7661a; 40 C.F.R. Part 70)

SUBCHAPTER 9

HAZARDOUS AIR POLLUTANT SOURCES

§11-60.1-171 Definitions. As used in this subchapter:

"Accidental release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

"Affected source" means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to Section 112 of the Act.

"Area source" means any stationary source of hazardous air pollutants that is not a major source

but shall not include motor vehicles or nonroad vehicles subject to regulation approved pursuant to Title II of the Act.

"Carcinogenic hazardous air pollutant" means any hazardous air pollutant recognized as known, probable, or potential human carcinogen by the EPA's Integrated Risk Information System (IRIS), or other documented studies or information by recognized authorities and approved by the director.

"Category" means any category of major sources and area sources of hazardous air pollutants listed pursuant to Section 112(c) of the Act.

"Commenced" as used in this subchapter means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

"Construction" means the on-site fabrication, erection, or installation of an affected source as defined in 40 CFR §63.2.

"EPA risk assessment guidelines" means the U.S. Environmental Protection Agency's Guidelines for Carcinogenic Risk Assessment, 51 FR 33992 (September 24, 1986).

"Emission standard" means a national standard, limitation, prohibition, or other regulation promulgated in 40 CFR Part 63 pursuant to Sections 112(d), 112(h), or 112(f) of the Act.

"Equivalent MACT" means the MACT emission limitation or requirements which are applicable to major sources of hazardous air pollutants and are approved by the director on a case-by-case basis, pursuant to Sections 112(g) or 112(j) of the Act.

"Existing source" means any affected source that is not a new source as defined in this subchapter.

"MACT" means maximum achievable control technology.

"New source", unless otherwise defined in an applicable Section 112 standard, means any affected source which is:

- (1) Major, or located within a major source of hazardous air pollutants, and in a category or subcategory for which construction or reconstruction is commenced after the Section 112(j) deadline, or after the Administrator proposes a relevant emission standard pursuant to Sections 112(d) or (h) of the Act, whichever comes first;
- (2) Major, subject to 112(g) of the Act, and for which construction or reconstruction commenced after January 27, 1997; or
- (3) Nonmajor, in a category or subcategory, and for which construction or reconstruction is commenced after the Administrator first proposes a relevant emission standard pursuant to Section 112(d) or (h) of the Act.

"Reconstruction", unless otherwise defined in an applicable Section 112 standard, means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

- (1) The fixed capital cost of the new components exceeds fifty percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the applicable MACT or equivalent MACT standard(s). Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to the applicable standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from the source.

"Regulated substance" means a substance listed pursuant to Section 112(r)(3) of the Act.

"Risk management plan" means a plan to detect and prevent or minimize accidental releases of regulated

substances from a stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment.

"Section 112(j)" means Section 112(j) of the Act.

"Section 112(j) deadline" means the date 18 months after the date by which a relevant standard is scheduled to be promulgated by the Administrator pursuant to Section 112(e) of the Act; except that for all major sources listed in the source category schedule for which a relevant standard is scheduled to be promulgated by November 15, 1994, the Section 112(j) deadline is November 15, 1996, and for all major sources listed in the source category schedule for which a relevant standard is scheduled to be promulgated by November 15, 1997, the Section 112(j) deadline is December 15, 1999.

"Stationary regulated substance source" means buildings, structures, equipment, installations, or substance-emitting stationary activities:

- (1) Which belong to the same industrial group;
- (2) Which are located on one or more contiguous properties;
- (3) Which are under the control of the same person or persons under common control; and
- (4) From which an accidental release may occur.

"Subcategory" means any subcategory of major sources and area sources of hazardous air pollutants listed pursuant to Section 112(c) of the Act.

"Threshold limit value" means the airborne concentration of a substance that, according to the American Conference of Governmental Industrial Hygienists, represents conditions under which nearly all workers may be repeatedly exposed day after day without adverse effects.

"Threshold limit value-time weighted average" means the threshold limit value for a normal eight-hour workday and a forty-hour workweek as specified in the TLV book.

"TLV-TWA" means threshold limit value-time weighted average.

"TLV book" means the "Documentation of the Threshold Limit Value and Biological Exposure

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Indices," seventh edition, published by the American Conference of Governmental Industrial Hygienists, Inc. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-172 List of hazardous air pollutants.

The following are hazardous air pollutants:

	<u>CAS number</u>	<u>Chemical name</u>
(1)	75070	Acetaldehyde
(2)	60355	Acetamide
(3)	75058	Acetonitrile
(4)	98862	Acetophenone
(5)	53963	2-Acetylaminofluorene
(6)	107028	Acrolein
(7)	79061	Acrylamide
(8)	79107	Acrylic acid
(9)	107131	Acrylonitrile
(10)	107051	Allyl chloride
(11)	92671	4-Aminobiphenyl
(12)	62533	Aniline
(13)	90040	o-Anisidine
(14)	1332214	Asbestos
(15)	71432	Benzene (including benzene from gasoline)
(16)	92875	Benzidine
(17)	98077	Benzotrichloride
(18)	100447	Benzyl chloride
(19)	92524	Biphenyl
(20)	117817	Bis(2-ethylhexyl)phthalate (DEHP)
(21)	542881	Bis(chloromethyl)ether
(22)	75252	Bromoform
(23)	106945	1-Bromopropane (1-BP)
(24)	106990	1,3-Butadiene
(25)	156627	Calcium cyanamide
(26)	133062	Captan
(27)	63252	Carbaryl

(28)	75150	Carbon disulfide
(29)	56235	Carbon tetrachloride
(30)	463581	Carbonyl sulfide
(31)	120809	Catechol
(32)	133904	Chloramben
(33)	57749	Chlordane
(34)	7782505	Chlorine
(35)	79118	Chloroacetic acid
(36)	532274	2-Chloroacetophenone
(37)	108907	Chlorobenzene
(38)	510156	Chlorobenzilate
(39)	67663	Chloroform
(40)	107302	Chloromethyl methyl ether
(41)	126998	Chloroprene
(42)	1319773	Cresols/Cresylic acid (isomers and mixture)
(43)	95487	o-Cresol
(44)	108394	m-Cresol
(45)	106445	p-Cresol
(46)	98828	Cumene
(47)	94757	2,4-D, salts and esters
(48)	3547044	DDE
(49)	334883	Diazomethane
(50)	132649	Dibenzofurans
(51)	96128	1,2-Dibromo-3-chloropropane
(52)	84742	Dibutylphthalate
(53)	106467	1,4-Dichlorobenzene (p)
(54)	91941	3,3-Dichlorobenzidene
(55)	111444	Dichloroethyl ether (Bis (2-chloroethyl) ether)
(56)	542756	1,3-Dichloropropene
(57)	62737	Dichlorvos
(58)	111422	Diethanolamine
(59)	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
(60)	64675	Diethyl sulfate
(61)	119904	3,3-Dimethoxybenzidine
(62)	60117	Dimethyl aminoazobenzene
(63)	119937	3,3-Dimethyl benzidine
(64)	79447	Dimethyl carbamoyl chloride
(65)	68122	Dimethyl formamide
(66)	57147	1,1-Dimethyl hydrazine

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(67)	131113	Dimethyl phthalate
(68)	77781	Dimethyl sulfate
(69)	534521	4,6-Dinitro-o-cresol, and salts
(70)	51285	2,4-Dinitrophenol
(71)	121142	2,4-Dinitrotoluene
(72)	123911	1,4-Dioxane (1,4-Diethyleneoxide)
(73)	122667	1,2-Diphenylhydrazine
(74)	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
(75)	106887	1,2-Epoxybutane
(76)	140885	Ethyl acrylate
(77)	100414	Ethyl benzene
(78)	51796	Ethyl carbamate (Urethane)
(79)	75003	Ethyl chloride (Chloroethane)
(80)	106934	Ethylene dibromide (Dibromoethane)
(81)	107062	Ethylene dichloride (1,2-Dichloroethane)
(82)	107211	Ethylene glycol
(83)	151564	Ethyleneimine (Aziridine)
(84)	75218	Ethylene oxide
(85)	96457	Ethylene thiourea
(86)	75343	Ethylidene dichloride (1,1-Dichloroethane)
(87)	50000	Formaldehyde
(88)	76448	Heptachlor
(89)	11874	Hexachlorobenzene
(90)	87683	Hexachlorobutadiene
(91)	77474	Hexachlorocyclopentadiene
(92)	67721	Hexachloroethane
(93)	82206	Hexamethylene-1,6-diisocyanate
(94)	680319	Hexamethylphosphoramide
(95)	110543	Hexane
(96)	302012	Hydrazine
(97)	7647010	Hydrochloric acid
(98)	7664393	Hydrogen fluoride (Hydrofluoric acid)
(99)	123319	Hydroquinone
(100)	78591	Isophorone
(101)	58899	Lindane (all isomers)
(102)	108316	Maleic anhydride
(103)	67561	Methanol

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(104)	72435	Methoxychlor
(105)	74839	Methyl bromide (Bromomethane)
(106)	74873	Methyl chloride (Chloromethane)
(107)	71556	Methyl chloroform (1,1,1-Trichloroethane)
—(108)	60344	Methyl hydrazine
(109)	74884	Methyl iodide (Iodomethane)
(110)	108101	Methyl isobutyl ketone (Hexone)
(111)	624839	Methyl isocyanate
(112)	80626	Methyl methacrylate
(113)	1634044	Methyl tert butyl ether
(114)	101144	4,4-Methylene bis(2-chloroaniline)
(115)	75092	Methylene chloride (Dichloromethane)
(116)	101688	Methylene diphenyl diisocyanate (MDI)
(117)	101779	4,4'-Methylenedianiline
(118)	91203	Naphthalene
(119)	98953	Nitrobenzene
(120)	92933	4-Nitrobiphenyl
(121)	100027	4-Nitrophenol
(122)	79469	2-Nitropropane
(123)	684935	N-Nitroso-N-methylurea
(124)	62759	N-Nitrosodimethylamine
(125)	59892	N-Nitrosomorpholine
(126)	56382	Parathion
(127)	82688	Pentachloronitrobenzene (Quintobenzene)
(128)	87865	Pentachlorophenol
(129)	108952	Phenol
(130)	106503	p-Phenylenediamine
(131)	75445	Phosgene
(132)	7803512	Phosphine
(133)	7723140	Phosphorus
(134)	85449	Phthalic anhydride
(135)	1336363	Polychlorinated biphenyls (Aroclors)
(136)	1120714	1,3-Propane sultone
(137)	57578	beta-Propiolactone
(138)	123386	Propionaldehyde
(139)	114261	Propoxur (Baygon)

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(140)	78875	Propylene dichloride (1,2-Dichloropropane)
(141)	75569	Propylene oxide
(142)	75558	1,2-Propylenimine (2-Methylaziridine)
(143)	91225	Quinoline
(144)	106514	Quinone
(145)	100425	Styrene
(146)	96093	Styrene oxide
(147)	1746016	2,3,7,8-Tetrachlorodibenzo- p-dioxin
(148)	79345	1,1,2,2-Tetrachloroethane
(149)	127184	Tetrachloroethylene (Perchloroethylene)
(150)	7550450	Titanium tetrachloride
(151)	108883	Toluene
(152)	95807	2,4-Toluene diamine
(153)	584849	2,4-Toluene diisocyanate
(154)	95534	o-Toluidine
(155)	8001352	Toxaphene (chlorinated camphene)
(156)	120821	1,2,4-Trichlorobenzene
(157)	79005	1,1,2-Trichloroethane
(158)	79016	Trichloroethylene
(159)	95954	2,4,5-Trichlorophenol
(160)	88062	2,4,6-Trichlorophenol
(161)	121448	Triethylamine
(162)	1582098	Trifluralin
(163)	540841	2,2,4-Trimethylpentane
(164)	108054	Vinyl acetate
(165)	593602	Vinyl bromide
(166)	75014	Vinyl
(167)	75354	Vinylidene chloride (1,1-Dichloroethylene)
(168)	1330207	Xylenes (isomers and mixture)
(169)	95476	o-Xylenes
(170)	108383	m-Xylenes
(171)	106423	p-Xylenes
(172)	0	Antimony Compounds
(173)	0	Arsenic Compounds (inorganic including arsine)
(174)	0	Beryllium Compounds
(175)	0	Cadmium Compounds

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(176)	0	Chromium Compounds
(177)	0	Cobalt Compounds
(178)	0	Coke Oven Emissions
(179)	0	Cyanide Compounds ¹
(180)	0	Glycol ethers ²
(181)	0	Lead Compounds
(182)	0	Manganese Compounds
(183)	0	Mercury Compounds
(184)	0	Fine mineral fibers ³
(185)	0	Nickel Compounds
(186)	0	Polycyclic Organic Matter ⁴
(187)	0	Radionuclides (including radon) ⁵
(188)	0	Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

¹ X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)₂.

² Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR' where:

n = 1, 2, or 3;

R = alkyl C7 or less; or R = phenyl or alkyl substituted phenyl;

R' = H or alkyl C7 or less; or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

³ Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter one micrometer or less.

⁴ Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

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⁵ A type of atom which spontaneously undergoes radioactive decay. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, am and comp] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-173 Applicability. The provisions of this subchapter are applicable to any stationary source which emits or has the potential to emit any hazardous air pollutant. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-174 Maximum achievable control technology (MACT) emission standards. (a) This section applies to an owner or operator of a major or area source of hazardous air pollutants that has or will have affected source(s) in a category or subcategory subject to a promulgated MACT emission standard. An owner or operator of an affected source shall comply with all applicable provisions of 40 CFR Part 63, entitled "National Emission Standards for Hazardous Air Pollutants for Source Categories," including the following subparts:

- (1) Subpart A, General Provisions;
- (2) Subpart D, Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants;
- (3) Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks;

- (4) Subpart M, National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities;
- (5) Subpart N, National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Anodizing Tanks;
- (6) Subpart O, Ethylene Oxide Emissions Standards for Sterilization Facilities;
- (7) Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers;
- (8) Subpart R, National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations);
- (9) Subpart T, National Emission Standards for Halogenated Solvent Cleaning;
- (10) Subpart U, National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins;
- (11) Subpart W, National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production;
- (12) Subpart Y, National Emission Standards for Marine Tank Vessel Loading Operations;
- (13) Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries;
- (14) Subpart DD, National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations;
- (15) Subpart GG, National Emission Standards for Aerospace Manufacturing and Rework Facilities;
- (16) Subpart II, National Emission Standards for Shipbuilding and Ship Repair (Surface Coating);
- (17) Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations;
- (18) Subpart KK, National Emission Standards for the Printing and Publishing Industry;

- (19) Subpart OO, National Emission Standards for Tanks-Level 1;
- (20) Subpart PP, National Emission Standards for Containers;
- (21) Subpart QQ, National Emission Standards for Surface Impoundments;
- (22) Subpart RR, National Emission Standards for Individual Drain Systems;
- (23) Subpart SS, National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process;
- (24) Subpart VV, National Emission Standards for Oil-Water Separators and Organic Water Separators;
- (25) Subpart WW, National Emission Standards for Storage Vessels (Tanks)—Control Level 2;
- (26) Subpart JJJ, National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins;
- (27) Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units;
- (28) Subpart VVV, National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works;
- (29) Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills;
- (30) Subpart HHHH, National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production;
- (31) Subpart VVVV, National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing;
- (32) Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines;

- (33) Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines;
- (34) Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters;
- (35) Subpart PPPPP, National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stand;
- (36) Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units;
- (37) Subpart BBBBBB, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities;
- (38) Subpart CCCCCC, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities;
- (39) Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources; and
- (40) Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.

(b) Any owner or operator who constructs, reconstructs, modifies, or operates an affected source subject to covered source permitting is subject to the application and permitting requirements of subchapter 5. Each MACT emission standard (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 5, Covered Sources.

(c) Any owner or operator who constructs, reconstructs, modifies, or operates an affected source

subject to noncovered source permitting requirements is subject to the application and permitting requirements of subchapter 4. Each MACT emission standard (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 4, Noncovered Sources.

(d) The deadlines for submitting the required initial notification, and applying for or obtaining a noncovered or covered source permit to address the MACT emission standard are as follows:

- (1) The owner or operator of a new affected source subject to noncovered or covered source permitting shall submit a complete noncovered or covered source permit application for and obtain a noncovered or covered source permit prior to commencing construction or reconstruction of an affected source, except as provided below.
- (2) The owner or operator of a new major affected source for which construction or reconstruction had commenced, and initial startup had not occurred before the standard's effective date, shall submit a complete and timely covered source permit application within sixty calendar days after the standard's effective date. The covered source permit application may be used to fulfill the initial notification requirements of 40 CFR §63.9(b).
- (3) The owner or operator of:
 - (A) an existing affected source;
 - (B) a new nonmajor affected source for which construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date; or
 - (C) a new affected source for which construction or reconstruction had commenced and initial startup had

occurred before the standard's effective date; shall submit written notification to the director of being subject to the MACT emission standard within 120 calendar days after the effective date of the applicable standard or within 120 calendar days after the source becomes subject to the applicable standard. The owner or operator may submit an initial notification later than the deadline required above, if the applicable MACT standard sets a later deadline. Notification shall be provided pursuant to 40 CFR §63.9(b)(2). The owner or operator shall also submit a complete and timely noncovered or covered source permit application, as applicable, within twelve months after the effective date of the standard, or within twelve months after the source becomes subject to the standard.

(e) In addressing the MACT emission standard, the owner or operator of an affected source shall provide as part of the noncovered or covered source permit application, any other additional information listed in 40 CFR 63.5(d)(1)(ii), (2), and (3). [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-175 Equivalent maximum achievable control technology (MACT) limitation. (a) This section applies to:

- (1) an owner or operator of a major source of hazardous air pollutants which includes one or more stationary sources that are within a source category or subcategory for which the Administrator has failed to promulgate an

- applicable emission standard under 40 CFR Part 63 by the section 112(j) deadline; and
- (2) an owner or operator who constructs or reconstructs a major source (as defined in 40 CFR §63.41) of hazardous air pollutants after January 27, 1997, and an owner or operator of an area source that converts to a major source of hazardous air pollutants after January 27, 1997, unless the major source has been specifically regulated or exempted from regulation under a standard issued pursuant to section 112(d), 112(h), or 112(j) of the Act.

(b) An owner or operator subject to this section is subject to an equivalent MACT limitation and shall comply with the applicable provisions of 40 CFR Part 63, entitled National Emission Standards for Hazardous Air Pollutants for Source Categories:

- (1) Subpart A, General Provisions; and
- (2) Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j) (40 CFR §63.40 to §63.44 and §63.50 to §63.56).

(c) The director shall determine, on a case-by-case basis, the equivalent MACT emission limitation in accordance with applicable provisions of 40 CFR Part 63, Subpart B, and impose any other requirements necessary to ensure the enforceability of the equivalent MACT emission limitation.

(d) Each equivalent MACT limitation (including emission limits, control, operational, and maintenance requirements, compliance dates, and any associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 5, Covered Sources. Any owner or operator who constructs, reconstructs, modifies, or operates an affected source is subject to the application and permitting requirements of subchapter 5.

(e) An owner or operator subject to paragraph (a)(1) shall comply with the following deadlines for

applying for and obtaining a covered source permit to address the equivalent MACT limitation:

- (1) For existing sources:
 - (A) The owner or operator of a major source or an affected source within a major source shall submit a complete and timely covered source permit application by the Section 112(j) deadline.
 - (B) The owner or operator who reconstructs a major source or an affected source within a major source, and the owner or operator of an area source that becomes a major source by the addition or reconstruction of an affected source or by the increase in the source's potential to emit (e.g., increased hours of operation or fuel usage, etc.) shall submit a complete covered source permit application and obtain a covered source permit prior to reconstruction or conversion to a major source.
 - (C) The owner or operator of an area source that becomes major and subject to paragraph (a)(1) due to the Administrator establishing a lesser quantity emission rate for a "major source" under Section 112(a)(1) of the Act shall submit a complete and timely covered source permit application within six months from the date that the source becomes major.
- (2) For new sources:
 - (A) The owner or operator who constructs or reconstructs a major source or an affected source within a major source, and the owner or operator of an area source that becomes a major source by the addition or reconstruction of an affected source or by the increase in the source's potential to emit (e.g., increased hours of operation or fuel

usage, etc.) shall submit a complete covered source permit application and obtain a covered source permit prior to construction, reconstruction, or conversion to a major source.

- (B) The owner or operator of an area source that becomes major and subject to paragraph (a)(1) due to the Administrator establishing a lesser quantity emission rate for a "major source" under Section 112(a)(1) of the Act shall submit a complete and timely covered source permit application within six months from the date that the source becomes major.

In addressing equivalent MACT, the owner or operator of the source shall provide, as part of the covered source permit application, any additional information required by 40 CFR §63.53.

(f) An owner or operator subject to paragraph (a)(2) who constructs or reconstructs a major source, and the owner or operator of an area source that becomes a major source by the increase in the source's potential to emit (e.g., increased hours of operation or fuel usage, etc.) shall submit a complete covered source permit application and obtain a covered source permit prior to construction, reconstruction, or conversion to a major source. In addressing equivalent MACT, the owner or operator of the affected major source shall provide, as part of the covered source permit application, any additional information required by 40 CFR §63.43(e). [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; am and comp 11/14/03; comp 1/13/12; am and comp 6/30/14, comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-176 REPEALED. [R 9/15/01]

§11-60.1-177 Early reduction. (a)

Notwithstanding sections 11-60.1-174 and 11-60.1-175, the director may allow an existing source, for which the owner or operator demonstrates that the source has achieved a reduction pursuant to 40 CFR Part 63, Subpart D, to meet an alternative emission limitation reflecting that reduction in lieu of an emission limitation promulgated pursuant to Section 112(d) of the Act.

(b) The alternative emission limitation specified in subsection (a) shall be considered an applicable requirement pursuant to subchapter 5. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Parts 63 and 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Parts 63 and 70)

§11-60.1-178 Accidental releases. The owner or operator of a stationary regulated substance source shall comply with any standard or other requirement concerning accidental releases, including the preparation, submittal, and implementation of a risk management plan pursuant to Section 112(r) of the Act. [Eff 11/26/93; comp 10/26/98; comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-179 Ambient air concentrations of hazardous air pollutants. (a) No person shall emit or cause to emit from any stationary source, hazardous air pollutants in such quantities that result in, or

contribute to, an ambient air concentration which endangers human health.

(b) The director shall not approve any application for a permit required by this chapter, for a new major source of hazardous air pollutants, or for the modification or reconstruction of any major source of hazardous air pollutants, or for any stationary source that the director has reason to believe that the emissions of hazardous air pollutants from the source may result in an unacceptable ambient air concentration, unless the owner or operator of the source, and except as provided in subsection (d), complies with one or more of the following:

- (1) Demonstrate that the emissions of hazardous air pollutants from the source will not result in, or contribute to, any significant ambient air concentrations as defined in subsection (c); or
- (2) Demonstrate that the applicable significant ambient air concentration in subsection (c) is inappropriate for the hazardous air pollutant in question and that the emissions of hazardous air pollutants from the source will not result in, or contribute to, any ambient air concentration which endangers human health. The demonstration shall include documented studies or information by recognized authorities on the specific health effects of such hazardous air pollutants and a detailed analysis, including a risk assessment, that demonstrates that the emissions from the sources will not endanger human health.

(c) For purposes of this subchapter, "significant ambient air concentration of any hazardous air pollutant" shall be defined as follows:

- (1) For any non-carcinogenic hazardous air pollutant with a TLV-TWA, and except as provided in subsection (e), any eight-hour average ambient air concentration in excess of 1/100 of the TLV-TWA, and any annual

average ambient air concentration in excess of 1/420 of the TLV-TWA;

- (2) For any non-carcinogenic hazardous air pollutant not having a TLV-TWA, any ambient air concentration greater than the concentration which the director determines to cause, to have the potential to cause, or to contribute to, the unreasonable endangerment of human health. The determination shall be made on a case-by-case basis, consider documented studies or information by recognized authorities on the specific health effects of such hazardous air pollutants, and include a reasonable margin of safety for the protection of the general public; or
- (3) For any carcinogenic hazardous air pollutant, any ambient air concentration that may result in an excess individual lifetime cancer risk of more than ten in one million assuming continuous exposure for seventy years. The ambient air concentration of a carcinogenic hazardous air pollutant shall be determined by performing a risk assessment based on procedures consistent with EPA's risk assessment guidelines or other alternative risk assessment procedures approved by the director.

(d) The emission of any hazardous air pollutants from a stationary source shall be exempt from the provisions of subsection (b) if:

- (1) The total allowable emissions of the hazardous air pollutant from the stationary source are below 0.1 pounds per hour; and
- (2) The significant ambient air concentration for the hazardous air pollutant as determined in accordance with subsection (c) is greater than two hundred $\mu\text{g}/\text{m}^3$ for all applicable averaging periods.

(e) Notwithstanding paragraph (c)(1), the director may at any time establish a lower

concentration than the significant ambient air concentration specified in paragraph (c)(1) if the director determines that such lower concentration is required for the protection of the public health or welfare. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; am and comp 6/30/14, comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 70)

§11-60.1-180 National emission standards for hazardous air pollutants. (a) This section applies to an owner or operator of a major or area source of hazardous air pollutants that has or will have source(s) that emit designated hazardous air pollutants listed in 40 CFR Part 61. An owner or operator of a stationary source shall comply with all applicable provisions of 40 CFR Part 61, entitled National Emission Standards for Hazardous Air Pollutants, including the following subparts:

- (1) Subpart A, General Provisions;
- (2) Subpart C, National Emission Standard for Beryllium;
- (3) Subpart D, National Emission Standard for Beryllium Rocket Motor Firing;
- (4) Subpart E, National Emission Standard for Mercury;
- (5) Subpart J, National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene;
- (6) Subpart V, National Emission Standard for Equipment Leaks (Fugitive Emission Sources);
- (7) Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels;
- (8) Subpart BB, National Emission Standard for Benzene Emissions from Benzene Transfer Operations; and

(9) Subpart FF, National Emission Standard for Benzene Waste Operations.

(b) Any owner or operator who constructs, reconstructs, modifies, or operates an applicable source subject to covered source permitting is subject to the application and permitting requirements of subchapter 5. Each emission standard in 40 CFR Part 61 (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 5, Covered Sources.

c) Any owner or operator who constructs, reconstructs, modifies, or operates an applicable source subject to noncovered source permitting requirements is subject to the application and permitting requirements of subchapter 4. Each emission standard in 40 CFR Part 61 (including emission limits, control, operational, and maintenance requirements, compliance dates, and associated recordkeeping, monitoring, testing, notification, and reporting requirements) is an applicable requirement of subchapter 4, Noncovered Sources. [Eff 11/26/93; comp 10/26/98; am and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7412, 7416; 40 C.F.R. Part 61) (Imp: HRS §§342B-3, 342B-12; 42 U.S.C. §§7407, 7416; 40 C.F.R. Part 61)

SUBCHAPTER 10

FIELD CITATIONS

§11-60.1-191 Purpose. The purpose of this subchapter is to create a field citation program that facilitates the effective and expeditious settlement of easily verifiable violations of chapter 342B, HRS, and this chapter, as listed in §11-60.1-192(a). The field citation program creates an expedited

administrative settlement process that is an alternative to the often costly and lengthy traditional administrative enforcement process. [Eff and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, comp 02/08/24] (Auth: HRS §342B-42)

§11-60.1-192 Offer to settle; penalties. (a) A field citation is an offer to settle an administrative case. In lieu of issuing a formal notice and finding of violation and order, the director may, at the director's sole discretion, through any authorized employee, issue a field citation by personal service or certified mail to a person who:

- (1) Causes or permits visible fugitive dust to become airborne without taking reasonable precautions, in violation of subsection 11-60.1-33(a);
- (2) Causes or permits the discharge of visible fugitive dust beyond the property lot line on which the fugitive dust originates, in violation of subsection 11-60.1-33(b);
- (3) Cause or permit visible fugitive dust emissions equal to or in excess of twenty percent opacity for more than twenty-four individual readings recorded during any one hour period, as determined by using EPA 40 CFR 51 Appendix M, Method 203B, in violation of subsection 11-60.1-33(c);
- (4) Causes or allows open burning in violation of subsection 11-60.1-52(a);
- (5) Fails to comply with the notification requirement for fires found in subsection 11-60.1-52(c);
- (6) Fails to comply with any approved condition or requirement for fires described in subsection 11-60.1-52(d);
- (7) Fails to comply with any approved condition or requirement for fires described in subsection 11-60.1-52(e) and allowed under subsections 11-60.1-52(f) and 11-60.1-55;

- (8) Fails to comply with any condition found in a permittee's agricultural burning permit, in violation of the specific condition found in the permittee's applicable agricultural burning permit;
 - (9) Fails to comply with any condition or requirement found in a permittee's noncovered source permit, in violation of the specific condition or requirement found in the permittee's applicable noncovered source permit;
 - (10) Fails to comply with any condition or requirement found in a permittee's covered source permit, in violation of the specific condition or requirement found in the permittee's applicable covered source permit;
 - (11) Fails to obtain a noncovered source permit, in violation of subsection 11-60.1-62(a); or
 - (12) Fails to obtain a covered source permit, in violation of subsection 11-60.1-82(a).
- (b) The notice of citation shall assess the following penalties for the violations in subsection (a):
- (1) Any person who violates paragraph (a)(1) shall be fined \$300 for a first violation, and \$500 for a subsequent violation.
 - (2) Any person who violates paragraph (a)(2) shall be fined \$500 for a first violation, and \$1000 for a subsequent violation.
 - (3) Any person who violates paragraph (a)(3) shall be fined \$200 for a first violation, and \$400 for a subsequent violation.
 - (4) Any person who violates paragraph (a)(4) shall be fined \$100 for a first violation, and \$300 for a subsequent violation.
 - (5) Any person who violates paragraph (a)(5) shall be fined \$250 for a first violation, and \$500 for a subsequent violation.
 - (6) Any person who violates paragraph (a)(6) shall be fined \$250 for a first violation, and \$500 for a subsequent violation.

- (7) Any person who violates paragraph (a)(7) shall be fined \$250 for a first violation, and \$500 for a subsequent violation.
- (8) Any person who violates paragraph (a)(8) shall be fined \$250 for a first violation, and \$500 for a subsequent violation.
- (9) Any person who violates paragraph (a)(9) shall be fined \$500 for a first violation, and \$1,000 for a subsequent violation.
- (10) Any person who violates paragraph (a)(10) shall be fined \$750 for a first violation, and \$1,500 for a subsequent violation.
- (11) Any person who violates paragraph (a)(11) shall be fined \$750 for a first violation, and \$1500 for a subsequent violation.
- (12) Any person who violates paragraph (a)(12) shall be fined \$1000 for a first violation, and \$2000 for a subsequent violation. [Eff and comp 9/15/01; comp 11/14/03; am and comp 1/13/12; am and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §342B-42)

§11-60.1-193 Acceptance or withdrawal of citation. (a) To accept the director's offer to settle, the person to whom a field citation was issued must, within twenty days of its issuance, correct the violations, sign the settlement agreement, and deliver the signed agreement with payment of the penalty by check or money order to the State of Hawaii. The director, on the director's own initiative, or upon request from the person to whom a field citation was issued, may extend the deadline to accept the offer to settle if the director determines that reasonable justification exists for the extension.

- (b) By signing the settlement agreement, the person to whom a field citation was issued agrees to:
- (1) waive the person's right to a contested case hearing pursuant to chapter 91, HRS;
 - (2) waive any challenge to the field citation;
 - (3) pay the penalty assessed;

- (4) correct the violation; and
- (5) enter into the settlement agreement.
- (c) The settlement agreement is not effective until it is signed by both the person to whom the field citation was issued and by the director. Approval by the director shall be at the director's sole discretion.
- (d) The director may withdraw the field citation if the person to whom it is issued:
 - (1) declines to accept the director's offer to settle;
 - (2) fails to satisfactorily meet any of the conditions set forth in subsection 11-60.1-193(a); or
 - (3) fails to satisfactorily meet any of the conditions set forth in subsection 11-60.1-193(b), in which case the director may bring a formal administrative action under HRS, §342B-42 and pursue any remedies available under this chapter, HRS, chapter 342B, or any other law. [Eff and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, am and comp 02/08/24] (Auth: HRS §342B-42)

§11-60.1-194 Form of citation. A field citation issued pursuant to this section shall be in the form prescribed by the department. [Eff and comp 9/15/01; comp 11/14/03; comp 1/13/12; comp 6/30/14, comp 02/08/24] (Auth: HRS §342B-42)

SUBCHAPTER 11

GREENHOUSE GAS EMISSIONS

§11-60.1-201 Purpose. The purpose of this subchapter is to further implement the goals of Act 234, 2007 Hawaii Session Laws. A statewide greenhouse gas emission (GHG) limit, to be achieved by 2020, is

set to equal or below the 1990 statewide greenhouse gas emission levels. Greenhouse gas emissions from airplanes shall not be included. [Eff and comp 6/30/14, comp 02/08/24] (Auth: HRS §§342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-202 Definitions. As used in this subchapter:

"Carbon sink or carbon dioxide sink" means a carbon reservoir that removes a greenhouse gas or a precursor of a greenhouse gas or aerosol from the atmosphere, and is the opposite of a carbon source. The main sinks are the oceans and growing vegetation that absorb CO₂.

"Facility-wide GHG emissions cap" means a permit emissions limitation, applicable to a covered source, limiting the entire source's annual non-biogenic greenhouse gas, and biogenic nitrous oxide and methane emissions. A facility-wide GHG emissions cap may also be defined in multiple covered source permits to identify partnering facilities with an approved combined GHG emissions cap as described in subparagraph 11-60.1-204(d)(6)(A).

"Municipal waste combustion operations" means a permitted covered source that combusts solid, liquid, or gasified household, commercial/retail, and/or institutional waste.

"On-the-Book" means control measures or operational practices affecting GHG emissions that the owner or operator of a facility plans, or is undertaking to implement because of regulatory or legal obligations; or as demonstrated through financial and resource commitments. Examples include required controls or practices mandated by a state or federal law; or budgeted and contracted/funded projects or resources.

"Permitted covered source" means a stationary source or facility issued or required to hold a

covered source permit pursuant to this chapter, and has begun construction or operation by the effective date of this subchapter. [Eff and comp 6/30/14, comp 02/08/24] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-203 Greenhouse gas emission limit.

The statewide GHG emission limit to be achieved by 2020, is equal to or below 13.66 million metric tons (or 15.06 million tons) per year of CO₂e, based on Hawaii's 1990 GHG emission estimates prepared under Act 234, 2007 Hawaii Session Laws. The GHG limit excludes aviation and international bunker fuel emissions, and includes carbon sinks. The director may update the numerical GHG emission limit should improved methodologies and data become available for estimating emissions. The limit serves as an indicator to measure progress of the state's GHG reduction measures and to determine the achievement and maintenance of the state's GHG limit by 2020.

[Eff and comp 6/30/14, comp 02/08/24] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-204 Greenhouse gas emission reduction

plan. (a) This section applies to an owner or operator of a permitted covered source, except for municipal waste combustion operations, with the potential to emit GHG emissions (biogenic plus non-biogenic) equal to or above 100,000 tons per year CO₂e. Each owner or operator of an affected source shall submit a GHG emission reduction plan for the director's approval within twelve (12) months of the effective date of this section. An owner or operator

may submit a written request for an extension 30 days prior to the deadline.

(b) The GHG emission reduction plan will be used to evaluate and establish an annual facility-wide GHG emissions cap for the affected source in support of achieving and maintaining the statewide GHG limit. The approved facility-wide GHG emissions cap and the associated provisions will be made a part of the covered source permit, and may be revised through the permit process to respond to new rules, updated technology, GHG reduction initiatives, and any other circumstances deemed necessary by the director to facilitate the state's GHG limit.

(c) Unless substantiated by the owner or operator of an affected source and approved by the director to be unattainable pursuant to the GHG control assessment described in subsection 11-60.1-204(d), each GHG emission reduction plan shall establish a minimum facility-wide GHG emissions cap in tons per year CO₂e, to be achieved by 2020 and maintained thereafter. The minimum facility-wide GHG emissions cap shall be sixteen percent (16%) below the facility's total baseline GHG emission levels less biogenic CO₂ emissions, as follows:

$$\text{Facility-wide cap} = (1 - 0.16) \times \left(\begin{array}{cc} \text{Facility} & \text{Facility} \\ \text{Total} & - \text{Baseline} \\ \text{Baseline} & \text{Biogenic} \\ \text{Emissions} & \text{CO}_2 \text{ Emissions} \end{array} \right) \text{ (tpy CO}_2\text{e)}$$

Where:

Facility Total Baseline Emissions (tpy CO₂e) =
Baseline[Biogenic + Non-Biogenic GHG Emissions]

Calendar year 2010 shall be used as the baseline year, unless the owner or operator can provide records for the director's approval demonstrating another year or an average of other years to be more representative of normal operations. Newly permitted sources without an operating history, shall estimate normal operations

for the director's approval in establishing the facility-wide GHG emissions cap.

(d) The GHG emission reduction plan required of affected sources shall at a minimum include:

(1) The facility-wide baseline annual emission rate (tpy CO₂e). Calendar year 2010 annual emissions shall be used as the baseline emissions to calculate the required facility-wide GHG emissions cap, unless another baseline year or period is approved by the director. Baseline emissions shall be determined in accordance with section 11-60.1-115, separated between biogenic and non-biogenic emissions, and exclude all emissions of noncompliance with an applicable requirement or permit limit. The owner or operator shall include the data and calculations used to determine the baseline emissions. If calendar year 2010 is deemed unrepresentative of normal operations, then the owner or operator may propose an alternate baseline annual emission rate for the director's approval, as follows:

(A) The owner or operator shall clearly document why calendar year 2010 is not representative of normal operations and why the proposed alternate year or period is more suitable based on trends, existing equipment and controls, scheduled maintenance, operational practices, and any other relevant information. Acceptable methods for determining alternate facility-wide baseline annual emissions include:

- (i) the facility-wide GHG emissions (less biogenic CO₂) based on the most recent representative year during the five-year period ending 2010;
- (ii) average facility-wide GHG emissions (less biogenic CO₂) over

- any consecutive two-year period during the five-year period ending in 2010;
 - (iii) average facility-wide GHG emissions (less biogenic CO₂) for the five-year period ending in 2010; or
 - (iv) comparable methods as approved by the director. The director will not consider the use of periods greater than five years from 2010, except for extreme cases such as where an affected source may not have been fully operational for an extended period of time.
- (B) For newly permitted covered sources without a 2010 operating history, the owner or operator shall make the best estimate of normal operations based on contract agreements, available operational records, required scheduled maintenance, market forecast, or any other information for projecting the affected source emissions. Potential emissions shall not be used, unless the owner or operator can clearly demonstrate that the facility will be continually operating at the maximum capacity for each and every year.

The owner or operator shall provide all supporting documentation for the proposed alternate baseline emission rate. The director, based on available information, may reject and modify the baseline emission rate in establishing the final facility-wide GHG emissions cap.
- (2) The 2020 facility-wide GHG emissions cap. Determine the facility-wide GHG emissions cap in accordance with subsection(c), using calendar year 2010 or the proposed GHG baseline emission rate determined by

paragraph (1) above. If the required emissions cap requiring a sixteen percent (16%) emission reduction from baseline year emissions is deemed unattainable, the owner or operator shall provide, as part of the reduction plan:

- (A) The justification and supporting documentation of why the required emissions cap cannot be met; and
- (B) A proposal, for the director's approval, of an alternate emissions cap resulting in the maximum achievable GHG reductions.

In determining whether or not the required GHG emissions cap is attainable, the owner or operator of an affected source shall first conduct the GHG control assessment described in paragraphs (3) to (5).

Available EPA guidelines for GHG Best Available Control Technology analysis, and GHG control measures by source type shall be used as applicable for this assessment.

- (3) Available Control Measures. Identify all available control measures with potential application for each source type, and all on-the-book control measures the facility is committed or will be required to implement affecting GHG emissions. At a minimum, the following shall be considered as applicable:

- (A) Available technologies for direct GHG capture and control;
- (B) Fuel switching or co-fired fuels;
- (C) Energy efficiency upgrades;
- (D) Combustion or operational improvements;
- (E) Restrictive operations;
- (F) Planned upgrades, overhaul, or retirement of equipment;
- (G) Outstanding regulatory mandates, emission standards, and binding agreements; and
- (H) Other GHG reduction initiatives that may affect the facility's GHG

emissions. Unless the owner or operator of the source has direct ownership or legal control over a GHG reduction initiative, that initiative cannot be relied upon as a proposed control strategy. Identification of GHG reduction initiatives, whether or not the owner or operator has ownership or legal control, will serve to highlight their potential importance for reducing GHG emissions in the state. The owner or operator of an affected source will only benefit from a GHG initiative, if the initiative reduces or helps to reduce and maintain the source's GHG emissions below its permitted facility-wide GHG emissions cap.

- (4) The Technically Feasible Measures. For any new control measure identified for the facility, eliminate all technically infeasible options based on physical, chemical, or engineering principles that would preclude the successful operation of the control with the applicable emission unit or source. Document the basis of elimination, and generate the list of technically feasible control options for further evaluation. All committed and required on-the-book measures shall remain on the list.
- (5) Control Effectiveness and Cost Evaluation. List the technically feasible control options and identify the following for each control measure as applicable. All cost data shall be provided in present dollars.
 - (A) Control effectiveness (percent pollutant removed);
 - (B) Expected emission rate (tons per year CO₂e, pounds CO₂e/kilowatt-hour);
 - (C) Expected emission reduction (tons per year CO₂e);

- (D) Energy impacts (BTU, kilowatt-hour);
- (E) Environmental impacts (other media and the emissions of other regulated air pollutants);
- (F) Any secondary emissions or impacts resulting from the production or acquisition of the control measure; and
- (G) Economic impact (cost effectiveness: annualized control cost, dollar/megawatt-hr, dollar/ton CO₂e removed, and incremental cost effectiveness between the control and status quo).

For committed or required on-the-books control measures and any other GHG control initiatives, identify at a minimum, items (A) through (C) above. Considering the energy, environmental, and economic impact, determine the GHG control or suite of controls found to be feasible in achieving the maximum degree of GHG reductions for the facility. Determine whether the required GHG emissions cap, pursuant to subsection (c) will be met. If an alternate cap must be proposed for approval, declare the proposed percentage GHG reduction and the alternate GHG reduction cap. Provide the justification and associated support information (e.g., references, assumptions, vendor quotes, sample calculations, etc.) to substantiate the control analysis and alternate GHG emissions cap.

- (6) The proposed Control Strategy. Present the listing of control measures to be used for implementation in meeting the required or proposed alternate 2020 facility-wide GHG emissions cap. Include discussion of the control effectiveness, control implementation schedule, and the overall expected GHG CO₂e emission reductions (tpy) for the entire facility. Owners or operators shall also consider the following:

- (A) Affected sources may propose to combine their facility-wide GHG emissions caps to leverage emission reductions among partnering facilities in meeting the combined GHG emissions caps. If approved by the director, each partnering facility will be responsible for complying with its own adjusted GHG facility-wide emissions cap.
- (B) Except for fee assessments and determining applicability to this section, biogenic CO₂ emissions will not be included when determining compliance with the facility-wide emissions cap until further guidance can be provided by EPA, or the director, through rulemaking.
- (C) The approved facility-wide GHG emissions cap and the associated monitoring, recordkeeping, and reporting provisions will be made a part of the covered source permit, enforceable by the director.

(e) Failure to submit an adequate GHG emission reduction plan, or failure to submit relevant facts or correct information upon becoming aware of such failure, constitutes a violation of this chapter. The owner or operator of an affected source has the same duty to certify the GHG emission reduction plan in accordance with section 11-60.1-4, and supplement or correct the GHG emission reduction plan, similar to the provisions in section 11-60.1-84 for covered source permit applications. During the processing of a GHG emission reduction plan, if the director determines that a re-submittal of the plan is required, or submittal of additional information is necessary to evaluate or take final action on the plan, the director may make the request in writing and set a reasonable deadline for the response.

(f) If the owner or operator of an affected source fails to submit an adequate GHG emission reduction plan, or if a facility-wide GHG emissions

cap cannot be mutually agreed upon, the director reserves the right to establish, and incorporate into the applicable covered source permit, a facility-wide GHG emissions cap as required or the lowest cap deemed achievable by the affected source based on the intent of this subchapter.

(g) Once a facility-wide GHG emissions cap is established and placed into the covered source permit, the GHG emission reduction plan shall become a part of the covered source permit application process for renewals and any required modifications pursuant to subchapter 5. With each subsequent GHG emission reduction plan submittal, the owner or operator of the affected source shall report:

- (1) The GHG emission reduction status;
- (2) Factors contributing to the emission changes;
- (3) Any control measure updates; and
- (4) Any new developments or changes that would affect the basis of the facility-wide GHG emissions cap.

(h) The facility-wide GHG emissions cap may be re-evaluated and revised by the director if any of the following events or circumstances exists:

- (1) Consideration for new rules, updated technology, implementation of GHG reduction initiatives, significant changes with renewable energy cost and supply, and any other measures deemed necessary by the director to facilitate the state's GHG limit;
- (2) The basis for establishing the facility-wide GHG emissions cap is found to be incorrect;
- (3) The methodology for calculating GHG emissions is updated or modified;
- (4) Renewable energy producers cease operations or fail to meet contractual obligations with the affected source, and there are no other reasonable alternatives; or
- (5) Reasonably unforeseen events beyond the control of the owner or operator of an affected source, resulting in long-term or

temporary emission changes, whereby the maintenance of the GHG emissions cap would be detrimental to the health and welfare of the public.

Any revision to a facility-wide GHG emissions cap is considered a significant modification subject to the application and review requirements of section 11-60.1-104. The owner or operator of an affected source seeking a GHG emissions cap change has the burden of proof to substantiate any requested change for the director's approval. Upon approving any GHG emissions cap revision, the director may impose additional emission limits or requirements on the affected source, or limit the time-frame allowed for the revised GHG emissions cap.

(i) Municipal solid waste landfills required by 40 CFR Part 60, Subpart Cc or 40 CFR Part 60, Subpart WWW to use gas collection and control systems are conditionally exempt from the GHG emission reduction requirements of Subsection 11-60.1-204(c).

(j) Should the permitted facility-wide GHG emissions cap not be met by January 1, 2020 and annually maintained thereafter, the owner or operator of the covered source shall be subject to enforcement action for each year after 2019 that the facility-wide cap is not met. Compliance with the facility-wide cap shall be determined at the end of each calendar year, or January 1 of the following year, starting with the end of 2019 or January 1, 2020. Each CO₂e ton over the cap shall constitute a separate offense and violation.

(k) The director shall conduct an evaluation in 2016, and annually thereafter, to determine the progress of achieving and if applicable, ongoing maintenance of the statewide GHG emissions limit specified in HRS, Chapter 342B-71 and section 11-60.1-203. The evaluation of the statewide GHG emission limit shall be conducted in a manner consistent with the procedures used to prepare the 1990 emission estimates under Act 234, 2007 Hawaii Session Laws. The director shall produce and make public annual progress reports listing GHG emissions levels for each affected facility and the statewide progress relative

to the statewide GHG emission limit. If the director determines that statewide GHG emission limit is met prior to 2020 and GHG emission projections indicate ongoing maintenance of the limit, the requirements of this section shall no longer be applicable to the affected facilities. Prior to finalizing any determination that the statewide GHG emission limit has been met, the director shall provide for public notice and an opportunity for public comment in accordance with the requirements specified in section 11-60.1-205. Upon achieving the statewide GHG emission limit, the director may revise or adopt additional rules to ensure the ongoing maintenance of the statewide GHG emission limit. [Eff and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-205 Public participation. (a) The director shall provide for public notice, including the method by which a public hearing can be requested, and an opportunity for public comment on all draft GHG emission reduction plans from §11-60.1-204. Any person requesting a public hearing shall do so during the public comment period. Any request from a person for a public hearing shall indicate the interest of the person filing the request and the reasons why a public hearing is warranted.

(b) Procedures for public notice, public comment periods, and public hearings shall be as follows:

- (1) The director shall make available for public inspection in at least one location in the county affected by the proposed action, or in which the source is or would be located:
 - (A) Information on the subject matter;
 - (B) Information submitted by the proposing party, except for that determined to be confidential pursuant to section 11-60.1-14;

- (C) The department's analysis and proposed action; and
 - (D) Other information and documents determined to be appropriate by the department;
- (2) Notification of a public hearing shall be given at least thirty days in advance of the hearing date;
- (3) A public comment period shall be no less than thirty days following the date of the public notice, during which time interested persons may submit to the department written comments on:
 - (A) The subject matter;
 - (B) The greenhouse gas emission reduction plan;
 - (C) The department's analysis;
 - (D) The proposed actions; and
 - (E) Other considerations as determined to be appropriate by the department;
- (4) Notification of a public comment period or a public hearing shall be made:
 - (A) By publication in a newspaper which is printed and issued at least twice weekly in the county affected by the proposed action, or in which the source is or would be located;
 - (B) To persons on a mailing list developed by the director, including those who request in writing to be on the list; and
 - (C) If necessary by other means to assure adequate notice to the affected public;
- (5) Notice of public comment and public hearing shall identify:
 - (A) The affected facility;
 - (B) The name and address of the proposing party;
 - (C) The name and address of the agency of the department reviewing the plan;
 - (D) The activity or activities involved in the plan, including, but not limited

to, whether the proposing party proposes:

- (i) an alternate baseline year;
 - (ii) an alternate facility-wide GHG emissions cap;
 - (iii) a control strategy involving partnering with one or more facilities.
- (E) The emissions change involved in the plan;
 - (F) The name, address, and telephone number of a person from whom interested persons may obtain additional information, including copies of the draft plan, all relevant supporting materials, and all other materials available to the department that are relevant to the decision, except for information that is determined to be confidential, including information determined to be confidential pursuant to section 11-60.1-14;
 - (G) A brief description of the comment procedures;
 - (H) The time and place of any hearing that may be held, including a statement of procedures to request a hearing if one has not already been scheduled; and
 - (I) The availability of the information listed in paragraph (1), and the location and times the information will be available for inspection; and
- (6) The director shall maintain a record of the commenters and the issues raised during the public participation process and shall provide this information to the Administrator upon request. [Eff and comp 6/30/14, comp 02/08/24] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

§11-60.1-206 Public petitions. (a) The applicant and any person who participated in the public comment or hearing process and objects to the grant or denial of a draft GHG emission reduction plan, may petition the department for a contested case hearing by submitting a written request to the director.

(b) The petition shall be based solely upon objections to the draft GHG emission reduction plan, that were raised with reasonable specificity during the public participation process, unless the petitioner demonstrates that it was impracticable to raise such objections; for example, the grounds for such objections arose after the public participation process.

(c) Any petitioner shall file a petition for a contested case hearing within ninety days of the date of the department's approval or disapproval of the proposed draft GHG emission reduction plan.

(d) Notwithstanding the provisions of subsection (b), if based solely on objections which were impracticable to raise during the public participation process, a petition for a contested case hearing may be filed up to ninety days after the objections could be reasonably raised.

(e) Except as provided in subsection (f), any draft GHG emission reduction plan that has been issued shall not be invalidated by a petition for a contested case hearing. If a draft GHG emission reduction plan is issued by the director, the owner or operator of the source shall not be in violation of the requirement to have submitted a timely and complete application.

(f) The effective date of draft GHG emission reduction plan shall be as specified for permits in 40 CFR Part 124.15 as it existed on May 1, 2023.

(g) Any person may petition for a contested case hearing for the director's failure to take final action on an application for draft GHG emission

reduction plan, within the time required for permits by this chapter. Such petition shall be submitted in writing and may be filed any time before the director issues a proposed draft GHG emission reduction.

(h) Any person aggrieved by a final administrative decision and order, including the denial of any contested case hearing, may petition for judicial review pursuant to section 91-14, HRS. A petition for judicial review shall be filed no later than thirty days after service of the certified copy of the final administrative decision and order. [Eff and comp 6/30/14, am and comp 02/08/24] (Auth: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416) (Imp: HRS §§ 342B-3, 342B-12, 342B-71, 342B-72, 342B-73; 42 U.S.C. §§7407, 7416)

DEPARTMENT OF HEALTH

Amendments to and compilation of chapter 11-60.1, Hawaii Administrative Rules, on the Summary Page dated February 8, 2024 were adopted on February 8, 2024 following a public hearing held on April 28, 2023, after public notice was given in the *Honolulu Star Advertiser*, *The Maui News*, *The Garden Island*, and *Hawaii Tribune-Herald* on March 30, 2023.

The rules shall take effect ten days after filing with the Office of the Lieutenant Governor.

(signed)

KENNETH S. FINK, MD, MGA, MPH
Director of Health

APPROVED:

(signed)

JOSH GREEN, MD
Governor, State of Hawaii

APPROVED AS TO FORM:

(signed)

Deputy Attorney General

IV. Administrative Matters

A. Update on the Board's Upcoming Advocacy Activities and Programs in accordance with the Board's Powers under Section 201M-5, Hawaii Revised Statutes (HRS)

1. Update and Discussion on Becker Communications Inc., regarding the Board's Small Business Outreach – *No Attachment*
2. Presentations to Industry Associations – *No Attachment*
3. Staff's Small Business Outreach – *No Attachment*

V. Legislative Matters

A. Update on the following legislative matters:

- 1. House Bill 2354 HD1 SD2 CD1 “Relating to the Small Business Regulatory Review Board”** – Clarifies that the Small Business Regulatory Review Board has the authority to review legislation affecting small businesses in response to a request from small business owners
- 2. Senate 2974 SD2 HD1 CD1 “Bill Relating to Economic Development”** – Establishes a Business Revitalization Task Force within the Department of Business, Economic Development, and Tourism to identify methods to improve Hawaii’s general economic competitiveness and business climate, including by mitigating regulatory and tax burdens; requires a report to the legislature

HOUSE OF REPRESENTATIVES
THIRTY-SECOND LEGISLATURE, 2024
STATE OF HAWAII

H.B. NO. 2354
H.D. 1
S.D. 2
C.D. 1

A BILL FOR AN ACT

RELATING TO THE SMALL BUSINESS REGULATORY REVIEW BOARD.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. Section 201M-5, Hawaii Revised Statutes, is amended as follows:

1. By amending subsection (a) to read:

"(a) There shall be established within the department of business, economic development, and tourism, for administrative purposes, a small business regulatory review board to review any proposed new or amended rule. If the board determines that a proposed rule will not have a significant economic impact on a substantial number of small businesses, the board shall submit a statement to that effect to the agency that sets forth the reason for the board's decision. If the board determines that the proposed rule will have a significant economic impact on a substantial number of small businesses, the board may submit to the agency suggested changes in the proposed rule to minimize the economic impact of the proposed rule, or may recommend the withdrawal of the proposed rule. The board may also consider any request from small business owners for review of any rule proposed, amended, or adopted by a state agency or for review of any legislation affecting small businesses, and to make recommendations to the agency or the legislature regarding the need for a rule change or legislation. For requests regarding county rules, the board may make recommendations to the county council or the mayor for appropriate action."

2. By amending subsection (f) to read:

"(f) The board shall submit an annual report to the legislature twenty days prior to each regular session detailing any requests from small business owners for review of any rule proposed, amended, or adopted by a state agency~~[7]~~ or for review

of any legislation affecting small businesses, and any recommendations made by the board to an agency or the legislature regarding the need for a rule change or legislation. The report shall also contain a summary of the comments made by the board to agencies regarding its review of proposed new or amended rules."

SECTION 2. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 3. This Act shall take effect upon its approval.

Report Title:

Small Business Regulatory Review Board; Legislation; Small Business

Description:

Clarifies that the Small Business Regulatory Review Board has the authority to review legislation affecting small businesses in response to requests from small business owners. (CD1)

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

THE SENATE
THIRTY-SECOND LEGISLATURE, 2024
STATE OF HAWAII

S.B. NO. 2974
S.D. 2
H.D. 1
C.D. 1

A BILL FOR AN ACT

RELATING TO ECONOMIC DEVELOPMENT.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that while new business formations have grown by thirty-seven per cent in Hawaii since the beginning of 2020, this rate is well below the national average and among the bottom ten nationally. In the latest comprehensive entrepreneurial study from the Kauffman Foundation, the early survival rate for startups in Hawaii is the lowest in the country. Self-employment in Hawaii has consistently been lower than in the United States as a whole, and in 2020, Hawaii ranked fortieth for the percentage of self-employed individuals.

The legislature further finds that tax rates are a factor in business investment decisions and often affect the movement of individuals. Recent reports show both companies and individuals are more likely to move to a location with lower taxes. Hawaii currently ranks the sixth highest for state and local taxes per capita and was ranked forty-second for business climate by the Tax Foundation.

The purpose of this Act is to establish a task force to identify methods to improve Hawaii's general economic competitiveness and business climate, including the mitigation of regulatory and tax burdens.

SECTION 2. (a) There is established a business revitalization task force within the department of business, economic development, and tourism for administrative purposes.

(b) The task force shall consist of the following members:

- (1) The director of business, economic development, and tourism or the director's designee;
- (2) The director of commerce and consumer affairs or the director's designee;

- (3) The director of taxation or the director's designee;
- (4) The director of labor and industrial relations or the director's designee;
- (5) A member of the small business regulatory review board, to be appointed by the chair of the board;
- (6) The dean of the university of Hawaii at Manoa Shidler college of business or the dean's designee; and
- (7) The director of each county agency with jurisdiction over economic development or each respective director's designee.

(c) The chair of the house of representatives standing committee with primary jurisdiction over economic development and the chair of the senate standing committee with primary jurisdiction over economic development may invite one person from each of the following entities to join the task force:

- (1) One representative of the construction industry;
- (2) One representative of the agriculture industry;
- (3) One representative of the visitor industry;
- (4) One representative of the food industry;
- (5) One representative of the retail industry;
- (6) One representative of the high technology industry;
- (7) One representative of the regional and ethnic chambers of commerce; and
- (8) One representative from the Chamber of Commerce Hawaii.

(d) The task force shall select a chairperson from among the members listed in subsection (b) and a vice chairperson from among any of its members.

(e) Local business community members of the task force shall serve without compensation.

(f) The task force shall meet as necessary but not less than quarterly. The task force may conduct its meetings by teleconference or other similar means.

(g) The task force shall:

(1) Identify methods to improve Hawaii's general economic competitiveness and business climate, including the mitigation of regulatory and tax burdens;

(2) Develop and recommend legislation to increase Hawaii's general economic competitiveness; and

(3) Develop recommendations for improving governmental operations and reducing costs.

(h) Staff to assist the task force in performing its duties shall be assigned by the department of business, economic development, and tourism or the president of the senate, speaker of the house of representatives, and governor.

(i) In performing its duties as required by subsection (g), the task force shall consider reports issued by the auditor; state ethics commission; department of business, economic development, and tourism; and university of Hawaii economic research organization and any other relevant reports.

(j) The task force shall submit a report of its findings and recommendations, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2026; provided that the task force may

submit all or parts of its recommendations to the legislature prior to the submission of its report.

(k) The task force shall be dissolved on June 30, 2026.

SECTION 3. This Act shall take effect on July 1, 2024.

Report Title:

DBEDT; Task Force; Business Revitalization; Report

Description:

Establishes a Business Revitalization Task Force within the Department of Business, Economic Development, and Tourism to identify methods to improve Hawaii's general economic competitiveness and business climate, including the mitigation of regulatory and tax burdens. Requires a report to the Legislature. (CD1)

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