

National Pollutant Discharge Elimination System
General Permit Fact Sheet for
Hawaii Administrative Rules (HAR) Chapter 11-55, Appendix E
Authorizing Discharges of Once Through Cooling Water
Less Than One (1) Million Gallons Per Day

- (1) A brief description of the type of facility or activity which is the subject of the draft permit.

This general permit covers facilities in the State of Hawaii that discharge once through cooling water of a total flow of less than one million gallons per day.

“Once through cooling water” means water passed through the main cooling condensers one or two times for the purpose of removing waste heat.

This general permit is not intended for use by facilities which discharge once through cooling water of a total flow of one million gallons per day or greater nor for facilities which recirculate and reuse cooling water in excess of the definition of “once through cooling water.”

- (2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

The allowed discharge is of cooling water of a total flow of less than one million gallons per day which is not commingled with other process water.

The most notable pollutant in the discharge is heat, however, additional pollutants may be present in the discharge dependent upon the source of the cooling water.

- (3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity.

Not applicable.

- (4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by 40 CFR §124.9 (for EPA-issued permits).

The General Permit is divided into the following sections:

1. Coverage under this General Permit
2. Limitations on Coverage under this General Permit [Revised]
3. Term of General Permit [Revised]
4. Notice of Intent Requirements [Revised]
5. Standard Conditions
6. Effluent Limitations and Monitoring Requirements [Revised]

7. Corrective Action
8. Reporting Requirements [Revised]
9. Submittal Requirements [Revised]
10. Additional Conditions
11. Record Retention
12. Falsifying Report
13. Renewal [Removed]
14. Forms [Revised]

Table 34.3 Effluent Limitation and Monitoring Requirements for Discharge of Once Through Cooling Water Less Than One (1) Million Gallons Per Day [Revised]

Sections 1 through 5 and 7 through 14 are basic requirements necessary to the General Permit. Section 6 and Table 34.3 detail the effluent limitations and monitoring requirements for once through cooling water discharges.

Basis for Discharge Limitations and Monitoring Requirements

The effluent limitations and monitoring requirements are based on the determinations established for the individual NPDES permits that had been issued for once-through, non-contact cooling water discharges of flow less than one (1) million gallons per day. Accordingly, the bases for the proposed effluent limitations are the HAR Chapter 11-54, Water Quality Standards.

Flow: The monitoring for flow is for quantification of the discharge.

Temperature: The temperature effluent limitation is based on HAR 11-54. Temperature criteria for all waterbody classification types require that the temperature not vary more than one degree Celsius from ambient conditions. This water temperature limitation as a discharge effluent limitation protects aquatic communities from thermal impacts.

Total Residual Oxidants: The permits established an effluent limitation for chlorine expressed as TRO. The source for the cooling water associated with these types of facilities are generally from, but not limited to, potable water systems or on-site ground water. The potable water source water may contain chlorine residuals for disinfection purposes. Also, the application of chlorine may be performed for the operation and maintenance of the piping system in regards to biofouling. Therefore, the general permit includes TRO limitations based on HAR 11-54-4, freshwater and saltwater acute toxicity criteria for chlorine. These limitations protect freshwater and saltwater organisms from acute toxicity chlorine discharges.

Suspended Solids, Oil and Grease: The effluent limitations for suspended solids and oil and grease were based on the individual NPDES permits that were issued for this type of discharge. The limitation for oil and grease are to ensure that pumps and other mechanical equipment are being properly operated and

maintained in regards to oily discharges. In addition, the general permit includes a narrative prohibition that there shall be no visible oil sheen in the effluent. The limitation for suspended solids is to ensure that the operation and maintenance of the cooling water system does not result in excessive discharge of particulate material. In addition, the general permit includes a narrative prohibition that there shall be no discharge of wastes from the physical cleaning of the cooling systems.

pH: The pH effluent limitation is based on HAR Chapter 11-54, Water Quality Standards, for applicable pH criteria.

The general permit contains a narrative prohibition that there shall be no discharge of compounds used in closed-loop systems.

The discharges are not subject to regulations that govern the design and operation of intake structures [316(b) rule] as it has been determined that the discharges are short duration, of limited volume, and result in de minimis impacts.

The discharges covered by the general permit shall comply with the Standard General Permit Conditions of HAR Chapter 11-55, Appendix A.

Requirements for Discharge into Class 1 or Class AA Waters

For discharges to Class 1 and Class AA waters, the treatment system plan will be submitted with the NOI to allow for review of the plan.

Chapter 11-55, Appendix E Revisions

Main

Original: *This General Permit is effective on [date] and expires four years from this date, unless amended earlier.*

Revised: *This General Permit is effective on [date] and expires five years from this date, unless amended earlier.*

Rationale:

Following revision of these general permits, the term will be five years after the effective date of the rules change, which is the maximum allowable term for NPDES permits for NPDES permits per 40 CFR §122.46(a).

Section 2(a)(3) (NEW)

(3) Facilities with cooling water intake structures subject to the requirements of Section 316(b) of the Clean Water Act.

Rationale:

40 CFR 125, Subpart I contains requirements applicable to cooling water intake structures under Section 316(b) of the Clean Water Act for facilities that have at least one cooling water intake structure that uses at least 25 percent of the water it withdraws for cooling purposes and has a design intake flow greater than two (2) million gallons per day. The DOH has decided not to cover these types of facilities under this general permit. The requirements in 40 CFR 125, Subpart I can be substantial, and the DOH believes this is more appropriate for an individual permit.”

Section 3(a)

Original: *This general permit becomes effective ten days after filing with the office of the lieutenant governor.*

Revised: *This general permit becomes effective ten days after filing with the office of the lieutenant governor and shall expire five years after the effective date, unless amended earlier.*

Rationale:

This revision is to make this subsection consistent with the general permit term specified at the beginning of the general permit. The previous language only specified when the general permit term began, and not when it expired. This is a minor change for completeness and consistency and has no functional impact on any permit requirements.

Section 3(b)

Original: *A notice of general permit coverage under this general permit expires:*

- (1) *Four years after the effective date of this general permit;*
- (2) *When the notice of general permit coverage specifies; or*
- (3) *When amendments to section 11-55-34.02(b)(5) are adopted,]*
whichever is earliest, unless the notice of general permit coverage is administratively extended under section 11-55-34.09(d).

Revised: *Unless otherwise specified on the notice of general permit coverage, a notice of general permit coverage granted under this general permit prior to the expiration of this general permit shall expire five years after the effective date of this general permit, unless it is administratively extended in accordance with section 3(c) of this general permit.*

Rationale:

Previously, to maintain coverage under this general permit in instances where the general permit is going to expire prior to its reissuance, permittees would

need to submit a renewal NOI prior to the general permit's expiration date. The previous section 3(b) specified that the Notice of General Permit Coverage (NGPC) expires in the identified 3 scenarios in accordance with this renewal procedure. The Clean Water Branch is now revising the renewal procedures for general permits to no longer require a renewal NOI and administrative extension prior to the expiration of the general permit. Under the new procedure, unless otherwise specified on the notice of general permit coverage, the notice of general permit coverage expires five years after the effective date of the general permit, unless it is administratively extended under the new section 3(c). This revision is necessary to be consistent with the new renewal process. More information explaining this change in the renewal process is provided in the rationale for the new section 3(c).

Section 3(c) [New]

Original: (NEW)

Revised: If the department is unable to reissue this general permit prior to its expiration, a notice of general permit coverage granted under this general permit shall be automatically administratively extended, unless otherwise specified on the notice of general permit coverage. This administrative extension shall expire sixty days after the effective date of the new general permit unless:

(1) A notice of intent for coverage under the new general permit is submitted within sixty days after the effective date of the new general permit. The administrative extension shall thus expire on the effective date of the notice of general permit coverage authorizing the existing discharge under the new general permit;

(2) An application for an individual NPDES permit coverage is submitted within sixty days after the effective date of the new general permit. The administrative extension shall thus expire on the effective date of the individual NPDES permit authorizing the existing discharge; or

(3) A notice of cessation is submitted where the administrative extension shall expire on the date that the discharge ceased.

Rationale:

Previously, to maintain coverage under this general permit in instances where the general permit is going to expire prior to its reissuance, permittees would need to submit a renewal NOI prior to the general permit's expiration date.

This procedure created a situation where a permittee is required to submit an NOI to request coverage under the reissued general permit prior to the reissued permit being finalized and adopted. In essence, permittees would be required to submit an NOI to apply for coverage under a general permit that has not been finalized, or at worst, has not had a draft public noticed yet, and therefore, permittees would not even be aware of what the new general permit's requirements would potentially be. To avoid this situation, the renewal process for general permit coverage has been revised. This new section now specifies that when the department is unable to reissue the general permit prior to its expiration, NGPCs granted under the general permit prior to its expiration are administratively extended until 60 days after effective date of the reissued general permit, unless one of 3 actions are taken by the permittee. In the new process, permittees would have 60 days to submit an NOI to request coverage under the reissued general permit, before their administrative extension expires. This will allow permittees to determine if they are able to comply with the new general permit and provide any newly required information in the NOI to request coverage under the reissued general permit.

Section 4(a)

Original: *The owner or its duly authorized representative shall submit a complete notice of intent no later than thirty days before the proposed starting date of the discharge or thirty days before the expiration date of the applicable notice of general permit coverage.*

Revised:

(a) The owner or operator shall submit a complete notice of intent thirty days before the proposed starting date of the discharge, and at least thirty days before the expiration date of this general permit.

Rationale:

The previous text specified that the owner or its authorized representative shall submit the notice of intent no later than thirty days prior to discharge for new dischargers, and thirty days prior to expiration of their NGPC for existing dischargers. However, dischargers intending to be covered under the general permit must also submit their NOI prior to the expiration date of the general permit to receive coverage as NGPCs cannot be issued under expired general permits. As CWB also needs time to process the NOI, a thirty-day deadline (thirty days prior to the expiration of the general permit) was added, which is the same timeframe for a new proposed discharge. The requirement for permittees to submit an NOI prior to the expiration date of their NGPC was removed, to prevent conflict with the new renewal process.

As an NPDES permittee may be either the owner or operator of a facility or activity, the term “operator” was also added to this section. Further, while the owner or operator’s certifying person or duly authorized representative must sign the notice of intent as applicable, the requirement to submit the notice of intent is still the owner or operator’s responsibility and is separate from notice of intent signatory requirements. To provide clarity, the duly authorized representative language is removed from this section.

Section 4(b)

Original: *The owner or its authorized representative shall;*

Revised: *The owner or operator shall;*

Rationale:

The previous text specified that the owner or its authorized representative shall submit the notice of intent. As an NPDES permittee may be either the owner or operator of a facility or activity, the term “operator” was added to this section. Further, while the owner or operator’s certifying person or duly authorized representative must sign the notice of intent as applicable, the requirement to submit the notice of intent is still the owner or operator’s responsibility and is separate from notice of intent signatory requirements. To provide clarity, the duly authorized representative language is removed from this section.

Section 4(d)

Original: *The owner or its duly authorized representative shall submit a complete notice of intent to the director at the following address or as otherwise specified:*

*Director of Health
Clean Water Branch
Environmental Management Division
State Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378*

Revised: *The initial notice of intent shall be signed by the certifying person as described in section 11-55-07(a). A revised notice of intent (a notice of intent that the department has required to be revised and resubmitted) shall be signed by either the certifying person or duly authorized representative as described in section 11-55-07(b).*

Rationale:

The original text has been moved to the new section 4(e). The revised section 4(d) was revised to clarify the signatory requirements of the notice of intent.

Previously, the DOH would receive questions on who must sign the notice of intent and revised notice of intent (as applicable). The intent of this revision is to clarify the signatory abilities of the certifying person and authorized representative. These signatory requirements are already in practice in current notice of intent processing procedures.

Section 4(e) [New]

Original *[From the previous section 4(d)]: The owner or its duly authorized representative shall submit a complete notice of intent to the director at the following address or as otherwise specified:*

*Director of Health
Clean Water Branch
Environmental Management Division
State Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378*

Revised: *The owner or operator shall submit a complete notice of intent to the director at the following address or as otherwise specified:*

*Director of Health
Clean Water Branch
Environmental Management Division
State Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378*

Rationale:

Most of the original text comes from the previous section 4(d). The previous text specified that the owner or its authorized representative shall submit the notice of intent. As an NPDES permittee may be either the owner or operator of a facility or activity, the term “operator” was added to this section. Further, while the owner or operator’s certifying person or duly authorized representative must sign the notice of intent as applicable, the requirement to provide information in the notice of intent is still the owner or operator’s responsibility and is separate from notice of intent signatory requirements. To provide clarity, the duly authorized representative language is removed from this section.

Section 6(a)(4)(C) [Removed]

Original: *The permittee shall use test methods with detection limits that reflect the applicable numerical limitations as specified in chapter 11-54 and must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). If the test result is not detectable, indicate that the test result*

is "less than #," where the # is the lowest detection limit of the test method used.

Revised: (REMOVED)

Rationale:

The previous language provided directions on how to report non-detects that are not currently used in practice, and therefore the language has been removed. Directions on current procedures are now provided in the revised section 8(a)(6).

Section 8(a)(2)

Original: The permittee shall submit monitoring results obtained during the previous calendar month postmarked or received by the department no later than the twenty-eighth day of the month following the completed reporting period.

Revised: The permittee shall submit monitoring results obtained during the previous calendar month postmarked or received by the department no later than the twenty-eighth day of the month following the completed reporting period. The first reporting period begins on the effective date of the issued notice of general permit coverage (e.g., if the notice of general permit coverage effective date is January 16th, monitoring results shall be reported no later than February 28th).

Rationale:

Previously, the general permit did not include language that explicitly stated when the first reporting period began. This caused confusion among permittees, as the due date for their first DMR was left up to interpretation. Some may interpret the general permit requirements as being required to begin submissions from the issue date of the NGPC, while others may interpret it as beginning when discharge activities begin. Regulatorily, once the NGPC is issued, the permittee is required to comply with the general permit as applicable. Section 8(a)(5) specifies that permittees must submit a DMR specifying "no discharge" when no discharge activities occur in a calendar month. Based on this, the intent of these reporting requirements is to have permittees regularly report to the Clean Water Branch monthly regardless of whether there was a discharge in the calendar month reporting period. Therefore, this revision was made to explicitly state that reporting begins as soon as the notice of general permit coverage is effective, in accordance with the intent of the general permit's reporting requirements.

Section 8(a)(6) (NEW)

(6) For the purposes of reporting, the permittee shall use the reporting threshold equivalent to the laboratory's method detection limit (MDL) and must utilize a standard calibration where the lowest standard point is equal or less than the concentration of the minimum level (ML).

(A) The permittee shall report sample results and calculations at or above the laboratory's ML on DMRs as the measured concentration or calculation.

(B) The permittee shall report sample results and calculations below the laboratory's MDL as NODI(B) on the DMR. NODI(B) means that the concentration of the pollutant in the sample is not detected.

(C) The permittee shall report sample results and calculations between the ML and MDL as NODI(Q) on the DMR. NODI(Q) means that the concentration of the pollutant in a sample is detected, but not quantified.

(D) For purposes of calculating averages, zero shall be assigned for values less than the MDL and the numeric value of the MDL shall be assigned for values between the MDL and the ML. The resulting average value must be compared to the effluent limitation or the ML, whichever is greater, in assessing compliance.

(E) For purposes of calculated geometric means, $0.25 * MDL$ shall be assigned for values less than the MDL and the numeric value of the MDL shall be assigned for values between the MDL and the ML. The resulting geometric mean must be compared to the effluent limitation of the ML, whichever is greater, in assessing compliance.

(F) When NODI(Q) or NODI(B) is reported for a parameter, the laboratory's numeric ML and MDL for that parameter shall also be noted on the DMR or on an attachment.

Rationale:

Requirements on reporting when collecting additional data are now solely identified in Table 34.3 in the proposed revision, and therefore, the previous

language has been added. This language specifies how to report quantifiable, non-quantifiable, and non-detected results, as well as how to calculate averages and geomeans that include these results. This new language is to update the general permit to be in accordance with current compliance practices and procedures.

Section 8(c)(2)

Original: *The permittee shall;*

Revised: *The permittee or its duly authorized representative shall;*

Rationale:

Section 8(c)(1) specifies that the permittee or its duly authorized representative shall orally report certain noncompliances to the Clean Water Branch. Section 8(c)(2) was revised to be consistent with section 8(c)(1) and also specify that the permittee or its duly authorized representative shall make oral reports at the identified phone numbers.

Section 8(c)(3)

Original: *The permittee shall;*

Revised: *The permittee or its duly authorized representative shall;*

Rationale:

Section 8(c)(1) specifies that the permittee or its duly authorized representative shall orally report certain noncompliances to the Clean Water Branch. Section 8(c)(3) was revised to be consistent with section 8(c)(1) and also specify that the permittee or its duly authorized representative shall make written reports.

Section 9(a), 9(b), and 9(c)

Original: *The owner or its duly authorized representative shall;*

Revised: *The permittee or its duly authorized representative shall;*

Rationale:

Previously, the term “owner” was used interchangeably with “permittee”, which potentially caused confusion as the owner is not always the permittee (the permittee may also be the operator of the project/facility). This section was revised to provide clarity and avoid confusion.

Section 13

Original: Request for renewal of general permit coverage must be received no later than 30 calendar days before the expiration of the general permit coverage.

Revised: (DELETED)

Rationale:

As discussed in the rationale for the revisions for section 3(c), the renewal process for notices of general permit coverage has been revised, and no longer requires permittees to submit renewal NOIs prior to the expiration of the general permit. Section 13 was removed in accordance with this new process.

Section 14

Original: 14. Forms;

Revised: 13. Forms;

Rationale:

Section 14 was re-numbered to section 13 to account for the removal of the previous section 13.

Table 34.3

Original:

Effluent Parameter	Effluent Limitation {1}	Minimum Monitoring Frequency	Type of Sample
Flow (MGD)	{2}	Continuous	Recorder/ Totalizer
Temperature (°C)	±1 from ambient	Once/Quarter {11}	Grab
Total Residual Oxidants (mg/l) {3}	0.013{4} 0.019{5}	Once/Quarter {11}	Grab
Total Suspended Solids (mg/l)	5 {6}	Once/Quarter {11}	Grab {7}
Oil and Grease (mg/l)	15	Once/Quarter {11}	Grab {8}

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Effluent Parameter	Effluent Limitation {1}	Minimum Monitoring Frequency	Type of Sample
pH (standard units)	{9}	Once/Quarter {11}	Grab {10}

MGD = million gallons per day

°C = degrees celsius

mg/l = milligrams per liter

Revised:

Effluent Parameter	Effluent Limitation {1}	Minimum Monitoring Frequency	Type of Sample
Flow (MGD)	{2}	Continuous	Recorder/ Totalizer
Temperature (°C)	±1 from ambient	Once/Quarter {11}	Grab
Total Residual Oxidants {3} (<u>µg/l</u>)	<u>13</u> {4} <u>19</u> {5}	Once/Quarter {11}	Grab
Total Suspended Solids (mg/l)	5 {6}	Once/Quarter {11}	Grab {7}
Oil and Grease (mg/l)	15	Once/Quarter {11}	Grab {8}
pH (standard units)	{9}	Once/Quarter {11}	Grab {10}

MGD = million gallons per day

°C = degrees celsius

mg/l = milligrams per liter

µg/l = micrograms per liter

Rationale:

Appendix E limits Total Residual Oxidants to 19 µg/L (0.019 mg/L) for discharges to freshwater and 13 µg/L (0.013 mg/L) for discharges to saltwater. These limitations are derived from the Water Quality criteria in HAR 11-54. Clarifies that units for Appendix E are consistent with Chlorine in HAR Chapter 11-54-4(c)(3), micrograms per liter.

Table 34.3 Footnote 3

Original: Total residual oxidants (TRO) is obtained using the amperometric titration method for total residual chlorine described in 40 CFR Part 136.

Revised: Total residual oxidants (TRO) is obtained using the amperometric titration method for total residual chlorine described in 40 CFR Part 136. If total residual chlorine cannot be analyzed immediately (i.e., within the 15-minute holding time as required by 40 CFR Part 136), total residual chlorine field test kits that are compliant with 40 CFR 136 methods may be utilized for measurement of total residual oxidants for compliance determinations. A test kit with a method detection limit of 20 µg/l or lower must be used. A discharge monitoring result with a total residual chlorine concentration greater than or equal to 20 µg/l shall be deemed out of compliance with the TRO effluent limitation. If the permittee cannot analyze for total residual chlorine within the 15-minute holding time, the permittee shall document the reason(s) why and include this explanation with their DMR.

Rationale:

Appendix E limits Total Residual Oxidants to 19 µg/L (0.019 mg/L) for discharges to freshwater and 13 µg/L (0.013 mg/L) for discharges to saltwater. These limitations are derived from the Water Quality criteria in HAR 11-54. Chlorine- and bromine-based biocides (total residual oxidants or TROs) are widely used for microbiological control in cooling tower systems. These halogen compounds for strong oxidizing agents in water, which is how they kill bacteria and other microorganisms. Therefore, DOH has determined that a reasonable potential exists for non-contact cooling water effluent discharges to cause or contribute to an excursion of the chlorine water quality criteria. Since chlorine makes up a portion of the TRO concentration, DOH has conservatively applied the chlorine limit in 11-54-5(c)(3) to TRO. DOH has thus implemented a water quality-based effluent limit for TROs as required per 40 CFR 122.44(d). 40 CFR 136 requires Total Residual Chlorine to be analyzed within 15 minutes of sample collection. During the past permit term, permittees that operate facilities that use non-contact cooling water informed DOH that their facilities are often located away from laboratories making it difficult, if not infeasible, in certain situations to meet the 15-minute holding time requirement. The laboratory method is ideal for compliance sampling, as it has a method detection limit low enough to determine

compliance with HAR 11-54 water quality standards, as other methods have method detection limits higher than the chlorine water quality standard. This footnote has been revised to specify that field test kits for total residual chlorine are acceptable for compliance monitoring provided that the method detection limit is 20 µg/l or lower which should be achievable by Standard Method 4500-CL G-2011 compliant field colorimeters. The permittee must also document and submit with the DMR why they could not comply with the 15-minute holding time to ensure that the field test kit was only used when the holding time was found to be infeasible.

- (5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

Not applicable.

- (6) A description of the procedures for reaching a final decision on the draft permit including:

- (i) The beginning and ending dates of the comment period under 40 CFR §124.10 and the address where comments will be received;
- (ii) Procedures for requesting a hearing and the nature of that hearing; and
- (iii) Any other procedures by which the public may participate in the final decision.

Refer to HAR Section 11-1-51 procedures for adopting rules. The proposed NPDES General Permit is issued as Appendix E within HAR Chapter 11-55, Water Pollution Control.

- (7) Name and telephone number of a person to contact for additional information.

*Mr. Darryl Lum
Engineering Section Supervisor
Clean Water Branch
Department of Health
Ph. (808) 586-4309*

- (8) For NPDES permits, provisions satisfying the requirements of 40 CFR §124.56.

The CWA requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges. Water quality-based effluent limitations are required by CWA Section 301(b)(1)(C). Both technology-based and water quality-based effluent limitations are implemented through NPDES permits.

For this permit, the effluent limits are based on Hawaii's water quality standards because no effluent limitation guidelines apply.

- (9) Justification for waiver of any application requirements under 40 CFR §122.21(j) or (q) of this chapter.

Not applicable.