

**Technical Support Document
for
EPA's Notice of Proposed Rulemaking
for the
Hawaii State Implementation Plan: Minor New Source Review Program**



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Acronyms and Abbreviations:

CAA	Federal Clean Air Act
CO	Carbon monoxide
EPA	United States Environmental Protection Agency
HDOH	Hawaii State Department of Health
NAAQS	National Ambient Air Quality Standards
NO _x	Reactive oxides of nitrogen
NSR	New Source Review
PM ₁₀	Particulate matter with an aerodynamic diameter less than 10 micrometers
PM _{2.5}	Particulate matter with an aerodynamic diameter less than 2.5 micrometers
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO ₂	Sulfur dioxide

Hawaii Department of Health (HDOH)

Submitted Rules (Revised November 14, 2003 and submitted on December 14, 2011)

Subchapter 1: General Requirements

Rule 11-60.1-1	Definitions*
Rule 11-60.1-2	Prohibition of air pollution*
Rule 11-60.1-3	General conditions for considering applications
Rule 11-60.1-5	Permit conditions
Rule 11-60.1-7	Transfer of permit
Rule 11-60.1-12	Air quality models
Rule 11-60.1-19	Penalties and remedies

Subchapter 5: Covered Sources

Rule 11-60.1-81	Definitions
Rule 11-60.1-82	Applicability
Rule 11-60.1-83	Initial covered source permit application
Rule 11-60.1-84	Duty to supplement or correct permit applications
Rule 11-60.1-91	Temporary covered source permits
Rule 11-60.1-92	Covered source general permits
Rule 11-60.1-93	Federally-enforceable permit terms and conditions
Rule 11-60.1-99	Public participation
Rule 11-60.1-103	Applications for minor modifications
Rule 11-60.1-104	Applications for significant modifications

*Note: Rules 11-60.1-1 and 11-60.1-2 were previously reviewed by EPA and signed by the Regional Administrator on February 1, 2012 for inclusion in the Hawaii State Implementation Plan (publication in the Federal Register pending).

Introduction

The rules listed above, which were submitted by HDOH as revisions to their State Implementation Plan (SIP) constitute their minor new source review (NSR) permitting program. These rules will replace the permitting provisions in Hawaii's existing SIP which were submitted to EPA on November 9, 1982 and published in the Federal Register on August 18, 1983 (48 FR 37402). The superseded SIP rules are listed here:

Rule 11-60-02	Permit system, applicability
Rule 11-60-03	Permit system, applications
Rule 11-60-04	Permit system, conditions for considering applications
Rule 11-60-05	Permit system, action on application
Rule 11-60-07	Permit system, cancellation of authority to construct
Rule 11-60-08	Permit system, suspension or revocation of permit to operate
Rule 11-60-09	Permit system, transfer of permit to operate
Rule 11-60-11	Permit system, posting of permit to operate
Rule 11-60-12	Permit system, fees
Rule 11-60-13	Permit system, fee schedule for a permit to operate
Rule 11-60-14	Permit system, period of a permit
Rule 11-60-37	Penalties and Remedies

Hawaii's Permitting Programs

HDOH is the only Clean Air Act (CAA) permitting authority in the State of Hawaii.

Any sources that are not explicitly exempted from permit requirements because of their low potential emissions are required to apply for and obtain permits from HDOH prior to construction, reconstruction, or modification. The permit serves as both a preconstruction permit and an operating permit.

HDOH's permitting program differentiates between covered and noncovered sources. Covered sources include all title V (part 70) major sources, all PSD major sources, all sources subject to a standard under Section 111 of the CAA, and all sources subject to a standard pursuant to part 112 of the CAA, excluding Section 112(r), *Prevention of Accidental Releases*.

Noncovered sources include all stationary sources that have been constructed, modified, or relocated since March 20, 1972 that are not covered sources.

The submitted rules constitute HDOH's minor NSR permitting program, where *minor* means activities that do not trigger major NSR, such as PSD. Hawaii HDOH has submitted portions of their covered source permitting program to satisfy the requirements of the federal minor NSR

program because the rules submitted by Hawaii apply to all covered sources and the covered sources contribute the majority of stationary source air emissions within the state.¹ For example, according to Hawaii's 2008 stationary source emissions inventory, covered sources emitted 94% of PM₁₀, 95% of PM_{2.5}, 89% of SO₂, 97% of CO, 96% of NO_x, 80% of VOC and 98% of Lead. Thus, the submitted rules would apply to all the sources that would be subject to the minor NSR program in Hawaii.

HDOH also implements a delegated PSD permitting program based on the requirements of 40 CFR 52.21.

Rule Summaries

The following are brief descriptions of rules reviewed by EPA staff as a part of this review. These descriptions are for informational purposes only and anyone interested in more detail is advised to read the rules directly.

Rule #	Title	Brief Description
11-60.1-1	Definitions	Defines terms used the air pollution control rules, including the definitions of covered and noncovered sources.
11.60.1-2	Prohibition of air pollution	Requires approval in writing from the director before engaging in any activity that causes air pollution.
11-60.1-3	General conditions for considering applications	Sets general criteria for approval of applications for noncovered or covered source permits.
11-60.1-5	Permit conditions	Under certain circumstances, allows the director to set more stringent conditions of approval than would otherwise be required.
11-60.1-7	Transfer of permit	Forbids transfer of permits between pieces of equipment or between persons without prior approval.
11-60.1-12	Air quality models	Requires dispersion modeling to be performed in accordance with 40 CFR part 51, appendix W unless prior approval is granted.
11-60.1-19	Penalties and remedies	Incorporates penalties and remedies from Hawaii Revised Statutes
11-60.1-81	Definitions	Defines terms in the covered source permit section
11-60.1-82	Applicability	Requires covered sources to obtain covered source permits unless they meet one of the listed exemptions
11-60.1-83	Initial covered source permit application	Sets requirements for a covered source permit application and procedures for processing the application
11-60.1-84	Duty to supplement or correct permit applications	Requires applicants to correct errors or supply additional information if needed
11-60.1-91	Temporary covered source permits	Sets criteria for permitting covered sources that can operate at multiple locations
11-60.1-92	Covered source general permits	Allows the director to establish general permits for similar nonmajor covered sources
11-60.1-93	Federally-enforceable permit terms and conditions	Conditions in covered source permits are federally enforceable unless otherwise specified
11-60.1-99	Public participation	Establishes procedures for public noticing covered source permits and accepting comments
11-60.1-103	Applications for minor modifications	Establishes procedures for submitting and processing applications for minor modifications of covered source permits

¹ Letter from HDOH to EPA Region 9, dated March 13, 2012, Re: Adequacy of Minor Source Review.

Rule #	Title	Brief Description
11-60.1-104	Applications for significant modifications	Establishes procedures for submitting and processing applications for significant modifications of covered source permits

Regulatory Analysis

Part A of title I of the CAA requires states to include in their SIPs permit programs that regulate the construction and modification of stationary sources adequate to ensure that the NAAQS are achieved. (See CAA § 110(a)(2)(C)). This is the legal basis for the NSR permitting program.

Part C of title I of the CAA (Part C) adds additional NSR requirements that apply to major stationary sources located in areas that are classified as attainment or unclassifiable of the NAAQS. This program is known as the PSD permitting program. Part D of title I of the CAA (Part D) adds additional NSR requirements to major stationary sources of non-attainment pollutants for sources proposing to locate within areas that are classified as nonattainment (i.e. nonattainment NSR). Hawaii implements the PSD program through a delegation agreement with EPA. As there are no nonattainment areas in Hawaii, the state does not need to implement part D. This submittal only pertains to the minor source permit program, and therefore we are not evaluating the submittal under Part C of the CAA.

The criteria that EPA uses to evaluate NSR programs included in a SIP submittal can be found in subpart I of 40 CFR 51: *Review of New Sources and Modifications*. Because Hawaii's SIP submittal is only meant to satisfy the requirements of minor NSR, EPA Staff compared the submitted rules with subpart I, excluding 40 CFR 51.165 and 51.166, which relate to review and permitting of new major sources and major modifications under Parts C and D.

In addition, SIP rules must be enforceable (see section 110(a) of the CAA) and must not relax existing requirements (see section 110(l)).

Below is our comparison of the federal regulatory requirements and the rules submitted by the State of Hawaii to comply with the applicable CAA requirements.

1. 40 CFR 51.160 – Legally enforceable procedures

(a) Each plan must set forth legally enforceable procedures that enable the State or local agency to determine whether the construction or modification of a facility, building, structure or installation or combination of these will result in (1) a violation of applicable portions of the control strategy; or (2) interference with attainment or maintenance of a national standard in the state in which the proposed source (or modification) is located or in a neighboring State.

The State of Hawaii submitted the following rules to comply with this requirement.

Rules 11-60.1-83(a)(11)&(12) require applicants for covered source permits for new construction and modifications to existing sources to provide an assessment of the ambient air quality impact of the source including a comparison with the NAAQS.

Rule 11-60.1-83(a)(4) requires applicants for covered source permits to provide the maximum emission rates of all regulated and hazardous air pollutants in such terms necessary to establish compliance consistent with the applicable requirements and standard reference test methods.

Rule 11-60.1-83(a)(7) requires applicants for covered source permits to cite all applicable requirements in the application and describe test methods to demonstrate compliance.

Upon review, EPA agrees that these rules satisfy the requirements under 40 CFR 51.160(a).

(b) Such procedures must include means by which the State or local agency responsible for final decision-making on the application for approval to construct or modify will prevent such construction or modification if (1) it will result in a violation of applicable portions of the control strategy; or (2) it will interfere with the attainment or maintenance of a national standard.

The State of Hawaii submitted the following rule to comply with this requirement.

Rule 11-60.1-83(h) allows the director to approve a covered source permit application *only* if the director determines that construction or operation of the source, or significant modification, will be in compliance with all applicable requirements including the NAAQS.

Upon review, EPA agrees that this rule satisfies the requirements under 40 CFR 51.160(b).

(c) The procedures must provide for the submission, by the owner or operator of the building, facility, structure, or installation to be constructed or modified, of such information on (1) the nature and amounts of emissions to be emitted by it or emitted by associated mobile sources; (2) the location, design, construction, and operation of such facility, building, structure, or installation as may be necessary to permit the State or local agency to make the determination referred to in paragraph (a) of this section.

The State of Hawaii submitted the following rules to comply with this requirement.

Rules 11-60.1-83(a)(2)&(4) require applicants for covered source permits to submit descriptions 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 and calculations of emission rates in pounds per hour, tons per year, and other terms as needed.

Rule 11-60.1-83(a)(9) requires applicants for covered source permits to supply all assumptions and calculations used to prepare the application.

Upon review, EPA agrees that these rules satisfy the requirements under 40 CFR 51.160(c).

(d) The procedures must provide that approval of any construction or modification must not affect the responsibility on the owner or operator to comply with applicable portions of the control strategy.

The State of Hawaii submitted the following rule to comply with this requirement.

Rule 11-60.1-2, which was reviewed as part of a separate SIP modification², states explicitly that written approval from the director to engage in any activity that causes air pollution does not release the person from the responsibility to comply with other statutes, laws, regulations, or ordinances.

Upon review, EPA agrees that this rule satisfied the requirements under 40 CFR 51.160(d).

(e) The procedures must identify types and sizes of facilities, buildings, structures, or installations which will be subject to review under this section. The plan must discuss the basis for determining which facilities will be subject to review.

The State of Hawaii submitted the following rules to comply with this requirement.

Rule 11-60.1-1, which was reviewed as part of a separate SIP modification³, contains the definition of a covered source. Rule 11-60.1-82(a) requires all covered sources to obtain a covered source permit before commencing construction, reconstruction, or modification, unless the source is exempt as provided in subsection (d), (e), and (k) of Rule 11-60.1-82.

HDOH has provided information demonstrating that emissions from sources subject to the covered source program represent between 80 and 98 percent of criteria pollutants emitted from all regulated stationary sources and therefore the covered source program provides an adequate program to ensure new and modified sources will not interfere with continued compliance with the NAAQS.⁴

In 2008, for example, HDOH reports that covered sources, in relation to all regulated stationary sources, emitted 80 percent of VOC, 89 percent of SO₂, 94 percent of PM₁₀, and at least 95 percent of CO, lead, NO_x, and PM_{2.5}.

Thus, given the additional information supplemented by the State of Hawaii, EPA agrees that these rules satisfy the requirements under 40 CFR 51.160(e).

(f) The procedures must discuss the air quality data and the dispersion or other air quality modeling used to meet the requirements of this subpart. (1) All applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other

² Signed by the Regional Administrator on February 1, 2012 and pending publication in the Federal Register

³ Signed by the Regional Administrator on February 1, 2012 and pending publication in the Federal Register

⁴ Letter from HDOH to EPA Region 9 dated March 13, 2012, Re: Adequacy of Minor Source Review

requirements specified in appendix W of this part (Guidelines on Air Quality Models). (2) Where an air quality model specified in appendix W of this part (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific State program. Written approval of the EPA must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures set forth in 40 CFR 51.102.

The State of Hawaii submitted the following rule to comply with this requirement.

Rule 11-60.1-12 requires estimates of ambient concentrations to be based on the models, databases, and other requirements specified in 40 CFR part 51, appendix W unless written approval is obtained from the director, in which case the director will provide for public notice and opportunity for public comment. Written approval from EPA is also required if an alternate or substitute model is used.

Upon review, EPA agrees that this rule satisfies the requirements under 40 CFR 51.160(f).

2. 40 CFR 51.161 – Public availability of information

(a) The legally enforceable procedures in 40 CFR 51.160 must also require the State or local agency to provide opportunity for public comment on information submitted by owners and operators. The public information must include the agency's analysis of the effect of construction or modification on ambient air quality, including the agency's proposed approval or disapproval.

The State of Hawaii submitted the following rules to comply with this requirement.

Rule 11-60.1-99(a) requires the director to provide all draft covered source permits except for administrative amendments and minor modifications for public notice, the opportunity for public comment, and the opportunity to request a public hearing.

The term *administrative amendment* is defined in Rule 11-60.1-1 and only refers to permit changes with negligible or no change in emissions.

The term *minor modification* is defined in Rule 11-60.1-80 and refers to a change in a covered source permit that: does not result in an increase in emissions above the permit limits or results in an increase in emissions of less than 5 tons per year of carbon monoxide or less than 2 tons per year of any other criteria pollutant provided there is no pollutant specific limit in the permit and otherwise meets the criteria for a minor permit modification in 40 CFR 70.7(e)(2).

We asked HDOH to provide further clarification regarding how minor modification determinations are performed to ensure appropriate public noticing procedures are being followed.

In summary, all major sources use an actual to potential to emit (PTE) or projected actual test, consistent with 40 CFR 52.21. If the project will result in a major modification, then a 30 day public notice, consistent with 40 CFR 52.21 is required. If the project is not a major modification, then a PTE to PTE test is used to determine if project will result in a “minor modification”, as defined in HAR § 11-60.1-81. If the project cannot be classified as a minor mod, then a 30 day public notice period is required.

For sources *with* a pollutant specific emission limit, to qualify as a minor modification, the project must not result in an emission increase above the permitted emission limit. For sources *without* a pollutant specific emission limit, to qualify as a minor modification, the project must not result in an emission increase above any of these specified levels, on a PTE to PTE basis:

- 500 lbs/yr of each HAP;
- 25% of each pollutant level defined in paragraph (1) in the definition of *significant*;
- 5 tpy of CO; and
- 2 tpy of any regulated air pollutants

For minor sources HDOH has significant flexibility to tailor their minor source permit program and EPA finds the minor source public notice thresholds in the submitted rules to be acceptable. However, at major sources the public notice applicability test for projects that do not trigger PSD review should be based on an actual to potential basis to determine if the project will result in an emission increase sufficiently large enough to trigger public notice requirements.

HDOH has committed to use an actual to PTE or projected actual test to determine if a project located at a major source constitutes a significant modification (i.e. is not a minor modification) and is therefore subject to public notice requirements. HDOH will use a “50% of each pollutant level defined in paragraph (1) in the definition of *significant*” to determine if the project results in a minor modification. In addition, HDOH commits to using this methodology until they can revise their current regulations to clarify the methods to be used for determining if emission increases at major sources result in significant revisions and therefore require public notice.⁵

Upon review, EPA agrees that these rules and procedures satisfy the requirements under 40 CFR 51.161(a).

⁵ Letter from HDOH to EPA Region 9, dated March 13, 2012, Re: Public Noticing and Permit Modification Procedures.

(b) For the purposes of paragraph (a) of this section, opportunity for public comment shall include, as a minimum, (1) Availability for public inspection in at least one location in the area affected of the information submitted by the owner or operator and of the State or local agency's analysis of the effect on air quality; (2) A 30-day period for submittal of public comment; and (3) A notice by prominent advertisement in the area affected of the location of the source information and analysis specified in paragraph (b)(1) of this section.

The State of Hawaii submitted the following rule to comply with this requirement

Rule 11-60.1-99 requires a public review period of at least 30 days and availability of the required information to evaluate the department's action, including the application (except confidential business information) and the department's analysis. Notification of the department's proposed action must be made in a prominent newspaper in the county affected by the proposed action, to persons on a mailing list developed by the director, and other means, as necessary.

Upon review, EPA agrees that this rule satisfies the requirements under 40 CFR 51.161(b).

(c) Where the 30-day comment period required in paragraph (b) of this section would conflict with existing requirements for acting on requests for permission to construct or modify, the State may submit for approval a comment period which is consistent with such existing requirements.

The State of Hawaii did not identify any conflicts. Therefore the provisions under 40 CFR 51.161(c) are not applicable.

(d) A copy of the notice required by paragraph (b) of this section must also be sent to the EPA through the appropriate Regional Office, and to all other State and local air pollution control agencies having jurisdiction in the region in which such new or modified installation will be located. The notice also must be sent to any other agency in the region having responsibility for implementing the procedures required under this subpart. For lead, a copy of the notice is required for all point sources. The definition of point source for lead is given in 40 CFR 51.100(k)(2).

Because of its location in the middle of the Pacific Ocean, there are no affected states in the vicinity of Hawaii, nor are there any other CAA permitting authorities in Hawaii.

3. 40 CFR 51.162 – Identification of responsible agency

Each plan must identify the State or local agency which will be responsible for meeting the requirements of this subpart in each area of the State. Where such responsibility rests with an agency other than an air pollution control agency, such agency will consult with the appropriate State or local air pollution control agency in carrying out the provisions of this subpart.

HDOH is the only CAA permitting authority in the State of Hawaii. HDOH is not proposing to delegate this authority. Therefore this requirement under 40 CFR 51.162 is met.

4. 40 CFR 51.163 – Administrative procedures

The plan must include the administrative procedures, which will be followed in making the determination specified in paragraph (a) of 40 CFR 51.160.

The State of Hawaii submitted the following rule to comply with this requirement.

Rules 11-60.1-83(b)-(k) describe the procedures for acting upon and making a decision when an application for a covered source permit is received. This includes determination of application completeness through approval, denial, or conditional approval.

Upon review, EPA agrees that this rule satisfies the requirements under 40 CFR 51.163.

5. 40 CFR 51.164 – Stack height procedures

Such procedures must provide that the degree of emission limitation required of any source for control of any air pollutant must not be affected by so much of any source's stack height that exceeds good engineering practice or by any other dispersion technique, except as provided in 40 CFR 51.118(b). Such procedures must provide that before a State issues a permit to a source based on a good engineering practice stack height that exceeds the height allowed by 40 CFR 51.100(ii)(1) or (2), the State must notify the public of the availability of the demonstration study and must provide opportunity for public hearing on it. This section does not require such procedures to restrict in any manner the actual stack height of any source.

The State of Hawaii submitted the following rules to comply with this requirement.

Rule 11-60.1-83(a)(5) requires applicants for covered source permits to supply stack parameters and stack height limitations developed pursuant to Section 123 of the CAA.

Rule 11-60.1-12 requires estimates of ambient concentrations to be based on the guidance in 40 CFR part 51, appendix W, which includes provisions related to good engineering practice stack height. Deviation from the modeling procedures in appendix W, which requires written approval from the director and EPA, triggers a mandatory public comment period.

Upon review, EPA agrees that these rules and procedures satisfy the requirements under 40 CFR 51.164.

6. Enforceability of SIP Rules

Section 110(a)(2)(A) of the CAA requires SIP rules to be enforceable. Rule 11-60.1-19 specifies that any person who violates any provision of chapter 60 or any term or provision of a permit shall be subject to the penalties and remedies provided for in the Hawaii Revised Statutes.

Furthermore, the rule revisions do nothing to change Hawaii's existing authority or capability to continue as the State's minor NSR permitting authority.

7. SIP Relaxation

Section 110(l) of the CAA states that the Administrator shall not approve any SIP revision that would interfere with any applicable requirement concerning attainment or incremental progress toward attainment of the NAAQS. EPA staff has reviewed the rules in the SIP submittal in comparison to the existing 1983 SIP rules and there are not changes expected to affect Hawaii's attainment status.

Staff Recommendation

Based on the Regulatory Analysis above, EPA staff recommends approval of HDOH's December 14, 2011 SIP submittal. These rules will replace the cited existing SIP rules in their entirety.

Attachments

1. Submitted Hawaii Administrative Rules Title 11, Chapter 60.1 Air Pollution Control, revised on November 14, 2003 and submitted on December 14, 2011.
2. Letter from HDOH to EPA Region 9 dated March 13, 2012, Re: Adequacy of Minor Source Review.
3. Letter from HDOH to EPA Region 9, dated March 13, 2012, Re: Public Noticing and Permit Modification Procedures.

References

1. Applicable SIP Rules revised on November 29, 1982 and approved into the SIP on August 18, 1983, 48 FR 37402.
2. 40 CFR 51, appendix I – Review of New Sources and Modifications.