

ASSIGNMENT
to
GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
(541) 736-1056

PERMITTEE:

**Hynix Semiconductor
Manufacturing America, Inc.**
1830 Willow Creek Circle
Eugene, Oregon 97402

INFORMATION RELIED UPON:

Application No.: 51517
Date Received: November 14, 2006

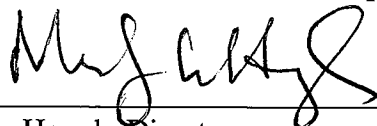
PLANT SITE LOCATION:

1830 Willow Creek Circle
Eugene, Oregon 97402

**LAND USE COMPATABILITY
STATEMENT:**

Date: October 31, 1995
Approving Authority: City of Eugene

ASSIGNMENT: The permittee identified above is assigned by the Lane Regional Air Protection Agency to the General ACDP listed below in accordance with ORS 468A.040, LRAPA Title 37 Section 37-0060(2) and based on the land use compatibility findings included in the permit record (note: land use compatibility statements are not applicable to portable sources).



Merlyn L. Hough, Director

MAY 28 2009

Dated

General Air Contaminant Discharge Permit Issued in Accordance with Section 37-0060:

General ACDP Number	Expiration Date	Source Category Description	SIC
AQGP-011	10/14/2018	Boilers and other Fuel Burning Equipment over 10 million BTU/hr heat input (Title 37, Table 1, Part B, 12)	4961

SUPPLEMENTAL INFORMATION:

Facility contact:		
Name:	Alan Olander	
Phone number:	541-338-5703	
Facsimile number:	Unknown	
e-mail address:	Unknown	
Permit Summary:		
Source Test Requirement	No	N/A
NSPS (40 CFR Part 60)	Yes	Dc
NESHAP (40 CFR Part 63)	No	N/A
Reports Required:		
Annual	Yes	February 15th
NSPS	Yes	February 15 th and July 15th
NESHAP	N/A	N/A
Other	N/A	N/A
Public Notice	Category I	
Application review report:		
LRAPA has reviewed the application for assignment to the General ACDP and determined that the application is complete and the subject facility qualifies for assignment to the General ACDP.		

GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
Telephone: (541) 736-1056

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into Title 37 Section 37-0060 by LRAPA for the following source category:

Oil-fired boilers greater than 10 million Btu/hour heat input and natural gas, propane, or butane-fired boilers (with or without distillate oil backup) 30 million Btu/hour or more heat input. SIC 4961

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1.0 PERMIT ASSIGNMENT

1.1 Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

- a. The permittee is operating oil, natural gas, propane, and/or butane-fired boiler(s) as listed on the cover of this permit, including supporting activities. This permit is not applicable to fuel burning equipment used to support other activities or sources required to have a permit under Section 37-0090, Table 1.
- b. Notwithstanding 1.1a., this permit is applicable to space heating and process boilers described in the table below:

Size	Heat energy input capacity
single boiler	oil-fired boiler, greater than 10 MM Btu/hour;
	natural gas, propane, or butane-fired boiler, 30 MM Btu/hr or more
aggregate on site	between 10 and 250 MM BTU/hour

- c. More than one boiler on site may be permitted with this General Permit provided that aggregate emissions from all boilers do not exceed the generic PSEL.
- d. A Simple or Standard ACDP is not required for the source.
- e. The source is not having ongoing, recurring or serious compliance problems.

1.2 Assignment

LRAPA will assign qualifying permittees to this permit that have and maintain a good record of compliance with the LRAPA's regulations and that LRAPA determines would be appropriately regulated by a General ACDP. LRAPA may rescind assignment if the permittee no longer meets the requirements of Section 37-0060 and the conditions of this permit.

- 1.3 Permitted Activities** This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Standard Permit or additional General ACDPs, if applicable.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

- 2.1 Visible Emissions** The permittee must comply with the following visible emission limits, as applicable:
- a. Emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.
- 2.2 Particulate Matter Emissions** The permittee must comply with the following particulate matter emission limits, as applicable:
- a. Particulate matter emissions from any fuel burning equipment installed on or before June 1, 1970 must not exceed 0.2 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.
 - b. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified after June 1, 1970 must not exceed 0.1 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.

- 2.3 Fugitive Emissions** The permittee must take reasonable precautions for preventing fugitive dust emissions from becoming a nuisance, such as but not limited to:
- a. Treating vehicular traffic areas of the plant site under the control of the permittee.
 - b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.
 - c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.
- 2.4 Particulate Matter Fallout** The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. LRAPA will verify that the deposition exists and will notify the permittee that the deposition must be controlled.
- 2.5 Nuisance and Odors** The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel.
- 2.6 Fuels and Fuel Sulfur Content** The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.
- a. Fuel oils must not contain more than:
 - i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;
 - ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil;
 - iii. 1.75% sulfur by weight for residual oil;
 - b. The permittee is allowed to use on-specification used oil that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that the used oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

3.0 NEW SOURCE PERFORMANCE STANDARDS

- 3.1 **Applicability** Federal requirements apply to boilers for which construction, modification, or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 100 million Btu per hour (Btu/hr) or less, but greater than or equal to 10 million Btu/hr. These requirements are in addition to requirements listed elsewhere in the permit. The full text of the federal standards are found in 40 CFR 60, Subpart Dc.
- 3.2 **Definitions**
- a. **Construction** means fabrication, erection, or installation of an affected facility.
 - b. **Modification** means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.
- 3.3 **Visible emissions limit** If oil is burned in the boiler and the heat input is greater than 30 million Btu/hr, visible emissions must not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.
- 3.4 **Particulate matter emission limits** The following particulate matter emission standards apply to each boiler that commences construction, reconstruction, or modification after February 28, 2005, and that has a heat input capacity greater than or equal to 30 million Btu/hr.
- a. If oil, gas, or a mixture of these fuels is burned in the boiler, particulate matter emissions must not exceed 0.030 lbs/MMBtu heat input, except as provided in condition 3.4b.
 - b. As an alternative to meeting the requirements of condition 3.4a for a boiler that commenced modification after February 28, 2005, particulate matter emissions must not exceed 0.051 lbs/MMBtu heat input and particulate matter emissions must be reduced by 99.8 percent from uncontrolled.
- 3.5 **Visible emissions monitoring**
- a. If residual oil is burned in the boiler and the heat input is greater than 30 million Btu/hr, visible emissions must be monitored with a continuous opacity monitoring system (COMS) installed, operated, and maintained in accordance with 40 CFR 60.13.

- 3.6 Particulate matter emission testing** For each boiler subject to the PM and/or opacity standards under Conditions 3.3 and/or 3.4 must conduct an initial performance test in accordance with 40 CFR 60.45c(a), and must conduct subsequent performance tests as requested by LRAPA, to determine compliance with the standards, except as specified in Condition 3.7.
- 3.7 Emissions testing and monitoring exemption** Boilers that burn only oil that contains no more than 0.5 weight percent sulfur or gaseous fuels with potential sulfur emission rates of 0.54 lbs/MMBtu heat input or less are not required to conduct emissions testing or monitoring if they maintain fuel supply certifications of the sulfur content of the fuels burned.
- 3.8 Sulfur Limits** The sulfur content of fuel oil burned in the boiler must not exceed 0.5% by weight.
- 3.9 Fuel sulfur monitoring** Unless an approved alternate monitoring frequency is obtained from the EPA Administrator, the permittee must record and maintain records of the amounts of each fuel combusted during each day in each subject boiler.
- a. If oil is burned, the permittee must maintain records of the sulfur content of the fuel oil by either obtaining fuel supplier certifications or sampling and analyzing the fuel oil in accordance with ASTM procedures.
 - b. If relying on fuel samples for demonstrating compliance with the fuel sulfur content limits, a sample must be collected and analyzed after each shipment of fuel is added to the storage tank.
- 3.10 NSPS boiler Reporting Requirement** Unless an approved alternate monitoring frequency is obtained from the EPA Administrator, the permittee must submit semi-annual reports for periods during which oil was burned that include the following information:
- a. The calendar dates covered in the reporting period;
 - b. Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period in the quarter; including:
 - i. reasons for any noncompliance with the emission standards; and
 - ii. a description of corrective actions taken.
 - c. Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period in accordance with Condition 3.7, ending with the last 30-day period, including:

- i. reasons for any noncompliance with the emission standards; and
 - ii. a description of corrective actions taken.
- d. If fuel supplier certifications are used to demonstrate compliance, records of fuel supplier certifications that include:
- i. For distillate oil:
 - The name of the oil supplier; and
 - A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 61.41c.
 - ii. For residual oil:
 - The name of the oil supplier;
 - The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
 - The sulfur content of the oil from which the shipment came (or of the shipment itself); and
 - The method used to determine the sulfur content of the oil.

Note: If using ASTM grade 3, include the most relevant information depending on whether the blend exhibits the characteristics of a distillate or residual oil

- e. If residual oil is burned in the boiler and the heat input is greater than 30 million Btu/hr, the semi-annual report must include a summary of any excess visible emissions recorded by the COMS.
- f. The initial semi-annual report must be postmarked by the 30th day of the third month following the actual date of startup. Each subsequent semi-annual report must be postmarked by the 30th day following the end of the reporting period.
- g. If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of

fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

3.11 Performance testing reporting

The permittee must submit to LRAPA the performance test data from the initial and any subsequent performance tests.

3.12 Recordkeeping

The permittee must maintain on-site for a period of at least two (2) years, records of the amount and type of fuels burned each day and calendar month and the information in Conditions 3.9 through 3.11 .

3.13 Construction or Modification

In addition to the Notice of Intent to Construct (NC) requirement in Condition 8.5a, the permittee must notify LRAPA and the EPA when equipment becomes subject to NSPS as summarized below:

If	Notification of	Due Date
Constructing or installing a new affected NSPS boiler	The date construction began	Within 30 days of commencing construction
	Actual start-up date	Within 15 days after start-up
Modifying existing equipment	The nature of the change, present and future emissions, productive capacity differences, expected completion date of change	60 days prior to expected completion date

3.14 EPA Submittal Address

All submittals to the EPA must be sent to the following address:

Director
 Air and Waste Management Division
 EPA Region X
 Mail Stop OAQ-107
 1200 Sixth Avenue
 Seattle, WA 98101-3123

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

- 4.1 Work practices** The permittee must perform a maintenance service on each boiler at least once in every 2-year period. As a minimum, the service must include an inspection of the burners and refractory chamber; cleaning, adjustment, and repair as necessary. For water tube boilers, the service must include flushing the tubes.

5.0 PLANT SITE EMISSION LIMITS

- 5.1 Plant Site Emission Limits (PSEL)** Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM ₁₀	14	tons per year
SO ₂	39	tons per year
NO _x	39	tons per year
CO	99	tons per year
VOC	39	tons per year

- 5.2 Annual Period** The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

- 6.1 PSEL Compliance Monitoring** Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times F)/2000 \text{ lbs}$$

where,

- E = pollutant emissions (ton/yr);
 EF = pollutant emission factor (see Condition 6.2);
 F = quantity of fuel burned (million cubic feet of natural gas or 1000 gallons of oil, propane, or butane)

- 6.2 Emission Factors** The permittee must use the default emission factors provided in the attachment to the review report for calculating pollutant emissions, unless alternative emission factors are approved by LRAPA. The permittee may request or LRAPA may require using alternative emission factors provided they are based on

actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by LRAPA.

7.0 RECORDKEEPING REQUIREMENTS

- 7.1 Operation and Maintenance** The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:
- a. Maintenance log and operation and maintenance plan as required in Section 4.0; and
 - b. Sulfur content of fuel oil used at the plant.
 - c. Sulfur content and analysis of used oil, as required by condition 2.6b; and
- 7.2 Excess Emissions** The permittee must maintain records of excess emissions as defined in Section 36-001 through 36-025 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period.
- 7.3 Complaint Log** The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.
- 7.4 Retention of Records** Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to LRAPA upon request.

8.0 REPORTING REQUIREMENTS

- 8.1 Excess Emissions** The permittee must notify LRAPA by telephone or in person of any excess emissions which are of a nature that could endanger public health.
- a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the

problem. Notice must be made to the regional office identified in Condition 9.3.

- b. If the excess emissions occur during non-business hours, the permittee must notify the LRAPA by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
- c. The permittee must also submit follow-up reports when required by LRAPA.

8.2 Annual Report

The permittee must submit to LRAPA by **February 15** of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year:

- a. Operating parameters:
 - i. Type and quantity of fuels burned on an annual basis; and
 - ii. Annual emissions as calculated according to Condition 6.1.
- b. Records of all planned and unplanned excess emissions events.
- c. Summary of complaints relating to air quality received by permittee during the year.
- d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
- e. List major maintenance performed on pollution control equipment.

8.3 Initial Startup Notice

The permittee must notify LRAPA in writing of the date a new facility is started up. The notification must be submitted no later than seven (7) days after startup.

8.4 Notice of Change of Ownership or Company Name

The permittee must notify LRAPA in writing using a LRAPA "Permit Application Form" within 60 days after the following:

- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
- b. Sale or exchange of the activity or facility.

8.5 Construction or Modification Notices

The permittee must notify LRAPA in writing using a LRAPA "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with LRAPA Title 34 Section 34-010 through 34-038 before:

- a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment;
- b. Modifying or altering an existing source that may significantly affect the emission of air contaminants;
- c. Making any physical change which increases emissions; or
- d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation that result in increased emissions.

8.6 Where to Send Reports and Notices The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the LRAPA office as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1 Reassignment to the General ACDP A complete application for reassignment to this permit is due within 60 days after the permit is reissued. LRAPA will notify the permittee when the permit is reissued.

- a. If LRAPA is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.
- b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until LRAPA takes final action on the Simple or Standard ACDP application.
- c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with LRAPA in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2 Permit Coordinator Address All reports, notices, and applications should be directed to the Permit Coordinator as follows:

Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477

Telephone: (541) 736-1056

- 9.3 LRAPA Contacts** Information about air quality permits and the LRAPA's regulations may be obtained from the LRAPA web page at www.lrapa.org. All inquiries about this permit should be directed to the LRAPA office noted in 9.2 above.

10.0 FEES

- 10.1 Annual Compliance Fee** The Annual Compliance Determination Fee specified in LRAPA Title 37, Section 37-0090, Table 2, Part 2(c) for a Class Two General ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by LRAPA regulations, will be mailed prior to the above date.
- 10.2 Change of Ownership or Company Name Fee** The non-technical permit modification fee specified in LRAPA Title 37, Section 37-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.
- 10.3 Where to Submit Fees** Fees must be submitted to:
Lane Regional Air Protection Agency
1010 Main Street
Springfield, OR 97477
Telephone: (541) 736-1056

11.0 GENERAL CONDITIONS AND DISCLAIMERS

- 11.1 Other Regulations** In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by LRAPA.
- 11.2 Conflicting Conditions** In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
- 11.3 Masking of Emissions** The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
- 11.4 LRAPA Access** The permittee must allow the LRAPA's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related

to this permit in accordance with ORS 468-095.

- 11.5 Permit Availability** The permittee must have a copy of the permit available at the facility at all times.
- 11.6 Open Burning** The permittee may not conduct any open burning except as allowed by LRAPA Title 47.
- 11.7 Asbestos** The permittee must comply with the asbestos abatement requirements in LRAPA Title 43 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
- 11.8 Property Rights** The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
- 11.9 Termination, Revocation, or Modification** LRAPA may modify or revoke this permit pursuant to Section 37-0060(3) and (4).

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	NSR	New Source Review
ASTM	American Society for Testing and Materials	O ₂	oxygen
AQMA	Air Quality Maintenance Area	OAR	Oregon Administrative Rules
bbl	barrel (42 gal)	ORS	Oregon Revised Statutes
calendar year	The 12-month period beginning January 1st and ending December 31st	O&M	operation and maintenance
CFR	Code of Federal Regulations	Pb	lead
CO	carbon monoxide	PCD	pollution control device
date	mm/dd/yy	PM	particulate matter
DEQ	Oregon Department of Environmental Quality	PM ₁₀	particulate matter less than 10 microns in size
dscf	dry standard cubic foot	ppm	part per million
EPA	US Environmental Protection Agency	ppmv	part per million by volume
FCAA	Federal Clean Air Act	PSD	Prevention of Significant Deterioration
gal	gallon(s)	PSEL	Plant Site Emission Limit
gr/dscf	grains per dry standard cubic foot	PTE	Potential to Emit
HAP	Hazardous Air Pollutant as defined by LRAPA Title 44	RACT	Reasonably Available Control Technology
ID	identification number	scf	standard cubic foot
I&M	inspection and maintenance	SER	Significant Emission Rate
lb	pound(s)	SERP	Source Emission Reduction Plan
LRAPA	Lane Regional Air Protection Agency	SIC	Standard Industrial Code
MMBtu	million British thermal units	SIP	State Implementation Plan
NA	not applicable	SO ₂	sulfur dioxide
NESHAP	National Emissions Standards for Hazardous Air Pollutants	Special Control Area	as defined in LRAPA Title 29
NO _x	nitrogen oxides	VE	visible emissions
NSPS	New Source Performance Standard	VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months

maa/tjj/msf:7/25/01
AQGP-011, boilers
Max 3/28/07

Lane Regional Air Protection Agency

**GENERAL
AIR CONTAMINANT DISCHARGE PERMIT
ASSESSMENT REPORT**

BOILERS

SOURCE DESCRIPTION AND QUALIFICATION

1. This General Permit is designed to regulate air contaminant emissions from oil or gas fired boilers that have individual heat input capacities greater than 10 and 30 million Btu per hour; respectively.
2. The facilities assigned to this General Permit have no other air pollution sources which require regulation beyond that specified in this permit, or have other pollution sources that also qualify for General Permits. Facilities eligible for assignment to this permit have not experienced recurring or serious compliance problems.

ASSESSMENT OF EMISSIONS

3. Facilities assigned to this General Permit are sources of PM and PM₁₀, SO₂, CO, NO_x, and VOC emissions. Some boilers burn only natural gas or only oil, and some boilers can burn either fuel. The type of fuel burned in the boiler affects the type and amount of emissions.
4. LRAPA has assessed the level of emissions of all air pollutants from these facilities and determined that facilities complying with the operational limits and monitoring requirements of this permit have emission levels below the established levels of concern stated in Tables 2 and 3 of LRAPA Title 12.

SPECIFIC AIR PROGRAM APPLICABILITY

5. Facilities assigned to this General Permit are subject to the general visible emissions standards, nuisance requirements (control of fugitive dust and odors), particulate matter standards, and fuel sulfur limits in LRAPA Title 32. The permit contains requirements and limitations to ensure compliance with these standards.
6. Some of the boilers at facilities assigned to this General Permit may be subject to federal New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units found in Title 40, Code of Federal Regulations, Part 60, Subpart Dc. Facilities for which construction, modification, or reconstruction was commenced after June 9, 1989 are subject to these federal requirements, which include sulfur limits for fuel oil. The permit contains requirements and limitations to ensure compliance with these

federal standards.

COMPLIANCE ASSURANCE

7. Permittees are required to maintain records of fuel use, upset conditions, and complaints received at the facility. These items are reported to LRAPA annually.
8. LRAPA staff members perform site inspections of the permitted facilities on a routine basis, and more frequently if complaints are received.

REVOCAION OF ASSIGNMENT

9. Any facility that fails to demonstrate compliance, generates complaints, or fails to conform to the requirements and limitations contained in the permit may have its assignment to the General Permit revoked. The facility would then be subject to a higher, more stringent level of permitting.

PUBLIC NOTICE

10. General Air Contaminant Discharge Permits are incorporated into LRAPA Rules and Regulations by reference and are part of the State Implementation Plan. As part of the rulemaking process, the public will be provided at least 30 days to submit written comments or may provide oral testimony at a public hearing that will be held at the end of the comment period. Notice of when and where the hearings will be held will be provided at least 30 days in advance of the hearings. LRAPA will review any comments and may modify the permits in response to the comments. The final permits will be issued after approval by the LRAPA Director.

AQGP-011r, boilers

7/25/01

Max 4/6/07

EMISSION FACTORS

Emission Factors (EF) for Boilers

Fuel type	Boiler type or controls	EF units	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Natural Gas	Uncontrolled	lb/million cubic feet	2.5	2.5	1.7	100	84	5.5
	Low NO _x burners	lb/million cubic feet	2.5	2.5	1.7	50	84	5.5
	Flue gas recirculation	lb/million cubic feet	2.5	2.5	1.7	32	84	5.5
Propane	All	lb/1000 gallons	0.6	0.6	0.10S ¹	19	3.2	0.5
Butane	All	lb/1000 gallons	0.6	0.6	0.09S ¹	21	3.6	0.6
#1 distillate oil	All	lb/1000 gallons	3.3	1.7 ²	142S ¹	18	5	0.2 ³
#2 distillate oil	All	lb/1000 gallons	3.3	1.7 ²	142S ¹	20	5	0.2 ³
#4 residual oil	All	lb/1000 gallons	8.5	7.3 ⁴	150S ¹	20	5	0.2 ³
#5 & #6 residual oil	All	lb/1000 gallons	11.5	9.9 ⁴	157S ¹	55	5	0.28 ³

¹The sulfur dioxide emission factor is based on the sulfur content of the fuel expressed as a percent by weight. For example, if the sulfur content of #1 distillate oil is 0.3%, the emission factor is $142 \times 0.3 = 42.6$ lb/1000 gallons of oil burned.

²PM₁₀ is 50% of total PM. Total PM is the sum of filterable PM and condensable PM. [AP-42 tables 1.3-1, 1.3-2, and 1.3-6]

³VOC reported as non-methane total organic carbon (NMTOC).