

OSRAM SYLVANIA Products Inc.
Penobscot County
Bangor, Maine
A-709-70-A-I

Departmental
Findings of Fact and Order
Air Emission License

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	OSRAM SYLVANIA Products Inc. (OSRAM)
LICENSE NUMBER	A-709-70-A-I
LICENSE TYPE	Initial Part 70 License
NAICS CODES	33511
NATURE OF BUSINESS	Electronic Components Manufacturing
FACILITY LOCATION	Bangor, Maine
DATE OF LICENSE ISSUANCE	June 24, 2002
LICENSE EXPIRATION DATE	June 24, 2007

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

UNIT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	5.02 MMBtu/hr	Fuel Burning (#2 oil, 0.5%)
Methanol Dip Tank	N/A	Process Equipment
W9 Wire Welding Machines	N/A	Process Equipment
Other Lead Wire Welding Machines	N/A	Process Equipment
Safety Kleen Solvent Degreasers (2)	20 gallons each	Degreasers

OSRAM has additional insignificant activities which do not need to be listed in the emission equipment table above. These activities include, but are not limited to, the automounts, annealing oven, a 20 kW propane fired emergency generator, and the batch furnace.

C. Application Classification

Potential emissions of criteria pollutants from OSRAM's Bangor facility do not exceed the applicability thresholds of MEDEP Chapter 140. However, potential methanol emissions do exceed the 10 tons/year applicability threshold for a single HAP. Since it is not feasible for them to accept synthetic minor source license restrictions at this time, OSRAM is subject to this Chapter.

The application for OSRAM does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be an Initial Part 70 License issued under Chapter 140 of the Department's regulations for a Part 70 source.

II. EMISSION UNIT DESCRIPTION

A. Boiler # 1

Unit Size and Age

Boiler #1 has a design heat input of 5.02 MMBtu/hr firing #2 fuel oil. Since Boiler #1 has a heat input of less than 10 MMBtu and was installed in 1967 it is not subject to New Source Performance Standards (NSPS) Subpart Dc. The boiler is used for heating purposes. Emission exit through a 24 ft stack.

Streamlining

Opacity

OSRAM accepts streamlining for opacity requirements. Chapter 101, Section 2(A)(1) of the Department's regulations and Best Practical Treatment (BPT) requirements are applicable. The Best Practical Treatment (BPT) opacity limit is more stringent. Therefore, only the more stringent BPT opacity limit is included in this license.

Sulfur Dioxide

OSRAM accepts streamlining for sulfur dioxide requirements. Chapter 106 of the Department's regulations and BPT requirements are applicable. The BPT limit is more stringent. Therefore, only the more stringent sulfur limit is included in this license.

Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes records of fuel use through purchase receipts indicating amounts (gallons) and percent sulfur by weight.

B. Process Description

General

OSRAM produces wire leads at its facility in Bangor. OSRAM operates automounts and one annealing oven in the manufacturing area. Other process equipment at the facility includes a methanol dip tank, W-9 wire welding machines, and other lead wire welding machines. There are two Safety Kleen degreasers on site used for maintenance purposes. Methanol is used as a lubricant and weld enhancer on the welding machines as well as in the dip tank to remove water from wire coils. Stoddard solvent is also used as a process lubricant on the welding machines. Formed pins are cleaned by being immersed in an aqueous cleaning solution. This solution has negligible VOC or HAP content.

Welders

With respect to the use of methanol as a lubricant and weld enhancer, OSRAM has investigated the use of alternative chemicals and the operation of the equipment dry. Methanol is used in part because it leaves a clean and shiny surface on the welded wire. No alternative chemical has been identified which can produce the same appearance necessary for customer specifications. Furthermore, the wire welding machines at OSRAM cannot be run dry. In the past, tests were conducted on the machines without methanol. The results were inconsistent with customer requirements. Without the use of methanol, OSRAM was unable to control the temperature of the material and could not meet wire temper and straightening requirements. No feasible alternative has been identified. Add-on pollution control equipment is not economically feasible for controlling emissions from these machines at this time.

The W-9 machines are distinct in that methanol is squirted onto the wire and collected in a drainage basin below. The other welding machines pass the wire through a felt sponge soaked with methanol. PLC controls are used to operate the W-9 machines. This system electronically controls the length of time the valve is open when methanol is squirted, so that less methanol is excreted to the weld area and the methanol is being applied exactly when needed. In addition, the used methanol collected from the W-9 machines is recycled following removal of weld fume and dirt in a solvent recovery system. Use of the PLC controls and solvent recovery system has resulted in a reduction in methanol usage and is considered BACT for the W-9 wire welding machines. Add-on pollution control equipment is not economically feasible for controlling emissions from the W-9 machines at this time.

OSRAM shall continue to research and develop low VOC/HAP or water based products and alternative control strategies in an effort to reduce overall emissions. OSRAM shall submit a letter to the Department on an annual basis which

documents this research activity. In this letter OSRAM will briefly describe any research they have done into new processes and/or controls that could reduce emissions. OSRAM will also describe any new practices or policies they have put in place to reduce emissions.

Degreasers

Because the methanol dip tank is owned by OSRAM, both the equipment and operation standards of MEDEP Chapter 130 must be met. OSRAM also operates two Safety Klean degreasers.

Periodic monitoring for the degreaser units and the methanol dip tank shall consist of recordkeeping including records of solvent added and removed.

Machine Shop Baghouses

Particulate emissions from the machine shop and development shop area at OSRAM are controlled with baghouses. Particulate emissions from these areas are generated mainly from grinding operations. The activities in the machine shop and development shop area are maintenance operations and are not part of OSRAM's processes, and as such, are exempt activities per MEDEP Chapter 140, Appendix B, Section A.15.

C. Facility Emissions

Total Allowable Annual Emissions for the Facility
(used to calculate the license fee)

Pollutant	Tons/Year
PM	1.3
PM ₁₀	1.3
SO ₂	5.5
NO _x	4.9
CO	0.4
VOC	42.1
Methanol	29.0

III. AIR QUALITY ANALYSIS

According to Chapter 140 of the Department's regulations, an existing Part 70 source shall be exempt from an impact analysis with respect to a regulated pollutant whose allowable emissions do not exceed the following:

<u>Pollutant</u>	<u>Tons/year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on facility license allowed emissions, OSRAM is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-709-70-A-I pursuant to MEDEP Chapter 140 and the preconstruction permitting requirements of MEDEP Chapter 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to OSRAM SYLVANIA Products Inc. pursuant to the Department's preconstruction permitting requirements in Chapters 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in Chapter 115 for making such changes and pursuant to the applicable requirements in Chapter 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only.**

STANDARD STATEMENTS

- (1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both;
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.
- (4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license;
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - (a) Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - (b) The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA

under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated October 27, 1997.

	SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
A	Facility	Chapter 111	Petroleum Liquid Storage Vapor Control	No fixed roof gasoline storage tanks at facility
B	Facility	Chapter 117	Source Surveillance	No applicable sources at this facility
C	Facility	Chapter 129	Surface Coating Facilities	No surface coating operations at the facility
D	Facility	Chapter 134	VOC RACT	Facility wide potential VOC emissions, excluding exempted equipment, do not equal or exceed 40 ton/yr
E	Facility	Chapter 138	NOx RACT	Facility wide potential NOx emissions do not equal or exceed 100 ton/yr
F	Boiler #1	40 CFR Part 60 Subpart Dc	Steam Generating Units	Boiler is <10 MMBtu/hr and built before 1989.

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- (a) Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to Chapter 140;
 - (b) Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

- (c) The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
- (d) The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (Title 38 MRSA §347-C);
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140;
- (3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; **Enforceable by State-only**
- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring

- sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license;
- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license.
- (8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (a) perform stack testing under circumstances representative of the facility's normal process and operating conditions:
 - (i) within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
 - (ii) to demonstrate compliance with the applicable emission standards; or
 - (iii) pursuant to any other requirement of this license to perform stack testing.
 - (b) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (c) submit a written report to the Department within thirty (30) days from date of test completion.

Enforceable by State-only

- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
- (a) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (b) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (c) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

Enforceable by State-only

- (10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.
- (a) The licensee shall notify the Commissioner within 48 hours of a violation in emission standards and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
 - (b) The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 MRSA § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs

during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- (c) All other deviations shall be reported to the Department in the facility's semiannual report.
- (11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- (a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - (b) The compliance status;
 - (c) Whether compliance was continuous or intermittent;
 - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (e) Such other facts as the Department may require to determine the compliance status of the source;

SPECIAL CONDITIONS

- (14) Boiler #1
- A. OSRAM is licensed to operate Boiler #1 (5.02 MMBtu/hr) which is licensed to fire #2 fuel oil. [MEDEP Chapter 140, BPT]

B. The sulfur content of the fuel oil fired shall not exceed 0.5% by weight demonstrated by purchase records from the supplier. [MEDEP Chapter 140, BPT]

C. Emissions from the boiler shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)	-

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.6	MEDEP Chapter 140, BPT	Enforceable by State-only
PM ₁₀	0.6	MEDEP Chapter 140, BPT	Enforceable by State-only
SO ₂	2.5	MEDEP Chapter 140, BPT	Enforceable by State-only
NO _x	2.3	MEDEP Chapter 140, BPT	Enforceable by State-only
CO	0.2	MEDEP Chapter 140, BPT	Enforceable by State-only
VOC	0.1	MEDEP Chapter 140, BPT	Enforceable by State-only

D. OSRAM shall operate the boiler such that the visible emissions from the stack does not exceed 30% opacity on a six (6) minute block average basis, for more than two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 140, BPT]

E. OSRAM shall maintain records of annual #2 fuel use indicating the quantity of fuel consumed (gallons) and the percent (%) sulfur content of the fuel by weight demonstrated by purchase records from the supplier. [MEDEP Chapter 140, BPT]

F. OSRAM shall not exceed an annual #2 fuel cap of 150,000 gallons per year (12 month rolling total) demonstrated by fuel records. [MEDEP Chapter 140, BPT] **Enforceable by State-only**

(15) OSRAM shall not exceed a facility wide HAP emission limit of 29.0 ton/year. Compliance with the HAP limit shall be demonstrated on a 12-month rolling total basis determined by monthly mass balance calculations for process equipment using the amount of material used and its HAP content. [MEDEP Chapter 140, BPT]

(16) OSRAM shall not exceed a facility wide VOC emission limit from process sources of 42.0 ton/year. Compliance with the VOC limit shall be demonstrated on a 12-month rolling total basis determined by monthly mass balance

calculations for process equipment using the amount of material used and its VOC content. [MEDEP Chapter 140, BPT]

- (17) OSRAM shall maintain standard operating and maintenance procedures (SOMP) to minimize VOC & HAP losses, and maintain these procedures at the appropriate locations within the facility. These procedures are as follows:
1. A procedure to minimize the volatilization of solvents during the measuring of VOC/HAP containing material and/or mixing of VOC containing material.
 2. A procedure to minimize VOC/HAP fugitive losses from any chemical and solvent storage rooms. Procedures should include methods of securely sealing containers and methods to clean up accidental spills.
 3. A procedure to minimize VOC/HAP losses during equipment cleanup and during transport (including the transferring of chemicals from the mixing areas to the production lines).

[MEDEP Chapter 140, BPT] **Enforceable by State-only**

- (18) OSRAM shall continue to research and develop water based or low VOC/HAP processes in an effort to reduce overall emissions. OSRAM shall submit a letter to the Department on an annual basis which documents this research activity. [MEDEP Chapter 140, BPT] **Enforceable by State-only**

- (19) OSRAM shall comply with the equipment and operation requirements of MEDEP Chapter 130 for the methanol dip tank. The methanol dip tank and the Safety Kleen degreasers shall be labeled with operational standards and equipped with covers if the vapor pressure is >15 mmHG at 100°F. OSRAM shall close covers when not in use, drain parts for 15 seconds or longer, keep drafts < 40 m/minute, repair leaks, and keep records of solvent added and removed. OSRAM shall not degrease porous material. [MEDEP Chapter 130, Solvent Degreasers]

(20) **Semiannual Reporting**

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The initial semiannual report is due January 30, 2003, 30 days from the end of the second calendar quarter following the date of signature of this license.

- A. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

[MEDEP Chapter 140]

(21) **Annual Compliance Certification**

The licensee shall submit an annual compliance certification to the Department in accordance with Condition (13) of this license. The initial annual compliance certification is due January 30, 2003. [MEDEP Chapter 140]

(22) **Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;
or
- 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

The emission statement must be submitted by September 1.

(23) **Toxic Air Pollutants Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall report, no later than September 1, every two years (1996,1998,etc.) or in a timeframe designated to the Department, the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

(24) The licensee is subject to the State regulations listed below.

<u>Origin and Authority</u>	<u>Requirement Summary</u>
Chapter 102	Open Burning
Chapter 109	Emergency Episode Regulation
Chapter 110	Ambient Air Quality Standard
Chapter 116	Prohibited Dispersion Techniques

(25) The licensee is subject to all applicable requirements of 40 CFR Part 82, Subpart F (Refrigerant Control).

(26) OSRAM shall pay the annual air emission license fee within 30 days of October 31st of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under section 341-D, subsection 3. **Enforceable by State-only**

(27) **Certification by a Responsible Official**
All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official. [MEDEP Chapter 140]

(28) The term of this license shall be five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/27/97

Date of application acceptance: 10/27/97

Date filed with the Board of Environmental Protection _____

This Order prepared by Lynn Ross, Bureau of Air Quality.