



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

**Diodes US Manufacturing
Incorporated
Cumberland County
South Portland, Maine
A-370-71-AD-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #3**

FINDINGS OF FACT

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Air Emission License A-370-71-Z-R/A was issued on November 4, 2012, to Fairchild Semiconductor Corporation for the operation of emission sources associated with their semiconductor manufacturing facility. The license was subsequently amended on October 13, 2020 (A-370-71-AA-A), and on March 10, 2022 (A-370-71-AB-M). The Air Emission License was subsequently transferred to Diodes US Manufacturing Incorporated (Diodes) on November 18, 2022 (A-370-71-AC-T).

The equipment addressed in this license amendment is located at 333 Western Avenue, South Portland, Maine.

Diodes has requested a minor revision to their license in order to better align the requirements for distillate fuel sulfur content for Boilers 1 and 2 with those found in the 38 M.R.S. § 603-A. Additionally, Diodes has requested that Boilers 1 and 2 be reclassified as gas fired boilers under 40 C.F.R. Part 63, Subpart JJJJJ.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Stack #
Boiler 1	12.6	89.5 gal/hr	distillate fuel	1982	2
		12,165 scf/hr	natural gas		
Boiler 2	20.9	149.2 gal/hr	distillate fuel	1980	2
		20,097 scf/hr	natural gas		

C. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

D. Application Classification

This amendment will not increase licensed emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

E. Facility Classification

With the annual emissions limits on PM, PM₁₀, SO₂, NO_x, CO, and VOC, the facility is licensed as follows:

- As a synthetic minor source of air emissions for PM, PM₁₀, SO₂, NO_x, CO, and VOC, because Diodes is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Revision Description

1. Reclassification of Boilers 1 and 2 under 40 C.F.R. Part 63, Subpart JJJJJ

Boilers 1 and 2 do not fire distillate fuel as a primary fuel source and have not for several years. As such, Diodes has requested that the boilers be reclassified as ‘gas fired boilers’ pursuant to the definition found in 40 C.F.R. § 63.11237. With the change in classification, Boilers 1 and 2 will no longer be subject to the requirements of Subpart JJJJJ. [40 C.F.R. § 63.11195(e)]

In order to maintain the classification as gas fired boilers, Diodes may only fire distillate fuel in Boilers 1 and 2 during periods of gas curtailment or supply interruption (as defined in 40 C.F.R. § 63.11237 “Period of gas curtailment or supply interruption”), startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
[40 C.F.R. § 63.11237]

2. Fuel Oil Sulfur Content

Pursuant to 38 M.R.S. § 603-A(2)(A) and Low Sulfur Fuel, 06-096 Code of Maine Rules (C.M.R.) ch. 106, § 3(A)(2), beginning July 1, 2018, no person may distribute or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight. Diodes’ license states that, as of July 1, 2018, Diodes may not fire distillate fuel with a sulfur content in excess of 0.0015% by weight and cites 38 M.R.S. § 603-A(2)(A)(3) as the origin and authority for this requirement. Neither the Department’s rule nor the underlying statute restricts the firing of a higher sulfur content fuel by the consumer

who receives the fuel oil. Diodes has requested clarification regarding whether distillate fuel purchased prior to July 2018 may be fired in the facility's equipment.

It was the Department's intent that facilities would be able to continue using fuel purchased and delivered prior to July 2018 until it was depleted and replaced with lower sulfur fuel, and the prohibition on "firing" such residual fuel was included in Diodes' license in error. Therefore, the Department finds that Boilers 1 and 2 may fire distillate fuel that remains on-site that was purchased and delivered prior to July 1, 2018 in accordance with 40 C.F.R. Part 63, Subpart JJJJJ.

C. Annual Emissions

This license amendment will not change the facility's licensed annual emissions.

ORDER

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

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

The Department hereby grants Air Emission License Amendment A-370-71-AD-M subject to the conditions found in Air Emission License A-370-71-Z-R/A, in amendments A-370-71-AA-A, A-370-71-AB-M, and A-370-71-AC-T, and the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following shall replace Specific Condition (16)(A) and (F) of Air Emission License A-370-71-Z-R/A.

(16) Existing Boilers 1 and 2 and Replacement Boilers 3 and 4

A. Fuel

1. Boilers 1 and 2 are licensed to fire either natural gas or distillate fuel.
[06-096 C.M.R. ch. 115, BPT]

2. Replacement Boilers 3 and 4 are licensed to fire natural gas.
[06-096 C.M.R. ch. 115, BPT]
3. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm).
[06-096 C.M.R. ch. 115, BPT]
4. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, certificate of analysis, or testing of the tank containing the fuel to be fired.
[06-096 C.M.R. ch. 115, BPT]

F. Operational Limitations for Boilers 1 and 2

Diodes may only fire distillate fuel in Boilers 1 and 2 during periods of gas curtailment or supply interruption (as defined in 40 C.F.R. § 63.11237 “Period of gas curtailment or supply interruption”), startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
[06-096 C.M.R. ch. 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS 20th DAY OF JUNE, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-370-71-Z-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/11/23

Date of application acceptance: 4/11/23

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

