



DEPARTMENT ORDER

**Cianbro Fabrication and Coating
Corporation
Somerset County
Pittsfield, Maine
A-794-71-J-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment # 2**

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

Cianbro Fabrication and Coating Corporation (Cianbro) was issued Air Emission License A-794-71-H-R on January 11, 2019, for the operation of emission sources associated with their metal fabrication and coatings facility. The license was subsequently amended on February 23, 2021 (A-794-71-I-A).

Cianbro has requested a minor revision to their license in order to remove the existing Blast Booth and replace it with a new unit designated Blast Booth 2.

The equipment addressed in this license amendment is located at 335 Hunnewell Avenue, Pittsfield, Maine.

B. Emission Equipment

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

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Date of Manufacture	Date of Installation
Blast Booth*	8 Tons of Grit/ Month	Bag House	1988	1988
Blast Booth 2	8 Tons of Grit/ Month	Bag House	2021	2022

* Removed from this license

C. Definitions

Metal fabrication and finishing HAP (MFHAP) means any compound of the following metals: cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form except lead.

Material containing MFHAP - A material containing one or more MFHAP. Any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Safety Data Sheet for the material, is considered to be a material containing MFHAP.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

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 VOC and HAP limits associated with the Coating Operations, the facility is licensed as follows:

- As a synthetic minor source of air emissions for VOC and HAP, because Cianbro 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.

Emissions of VOC and HAP are licensed above 80% of the respective major source threshold levels for these pollutants. Therefore, this facility is classified as an “80% Synthetic Minor” for the purpose of determining the minimum required compliance inspection frequency in accordance with Maine’s Compliance Monitoring Strategy.

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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Blast Booth 2

Cianbro will utilize Blast Booth 2 to remove welding slag and rust from components before painting them. During the blast process, Cianbro proposes to exhaust the dust-laden air at a rate of 22,100 cfm from Blast Booth 2 through a cartridge pulse jet dust collector or baghouse, referred to hereafter as the ADFT Dust Collection System. The ADFT Dust Collection System is equipped with a photohelic leak detection system which alerts operators of a malfunction in the dust collection system.

1. BACT Findings

The following is a BACT analysis for control of PM emissions from Blast Booth 2.

For abrasive blasting operations, the control options typically used to minimize particulate emissions fall into two categories: 1) type of blast media used; and 2) capture and control of blasting debris through the use of enclosures and filters. Cianbro will use steel grit, which is an angular shaped media used for aggressive blast applications and is also an inherently low PM emitting blast material. Cianbro will recycle the steel grit for reuse, which also reduces waste.

In addition to using low PM-emitting blast media, Cianbro will conduct the blasting operations inside Blast Booth 2 which is vented through an ADFT Dust Collection System, which utilizes a series of 40 filters achieves a rated control efficiency of 99.999% for particles 0.5 microns and larger. The specifications for the ADFT Dust Collection System are included in the application for this air emission license amendment.

The recovered blasting debris is cleaned routinely to minimize material being tracked outdoors and enables reuse of the blast media.

BACT for PM emissions from Blast Booth 2 is determined to be the use of low PM emitting blasting media, operation of the ADFT Dust Collection System whenever Blast Booth 2 is being used, and regular inspection and maintenance of the ADFT Dust Collection System with records of this activity.

2. Visible Emissions

Blast Booth 2 is exempt from the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 because it is subject to a visible emission standard under 40 C.F.R. Part 63, Subpart XXXXXX, *National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories*.

[06-096 C.M.R. ch. 101, § 1(C)(8)]

The visible emissions requirements of Subpart XXXXXX are addressed in a section below.

The Department finds that BACT for visible emissions from Blast Booth 2 shall not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

The Department has determined that the proposed BACT visible emission limit is more stringent than the applicable limit in 40 C.F.R. Part 60, Subpart XXXXXX. Therefore, the visible emission limit for blasting operations has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be included in the air emission license.

3. Additional BACT Requirements

Cianbro shall comply with the following:

- a. Operate all equipment associated with Blast Booth 2, including all emissions control equipment, according to manufacturer's instructions. Compliance with this requirement will be demonstrated by maintaining a record of the manufacturer's specifications for Blast Booth 2 and the ADFT Dust Collection System;
- b. Use proper housekeeping practices in and around Blast Booth 2, including the proper cleaning and disposal of used or spilled materials, sweeping dust and debris routinely to minimize tracking material by moving vehicles or equipment or personnel, as well as the proper storage and handling of unused material and equipment; and
- c. Collect spent materials in proper containers in a manner that prevents extraneous dust and loss of materials until it is disposed of properly.

[06-096 C.M.R. ch. 115, BACT]

4. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart XXXXXX

Cianbro is subject to the NESHAP 40 C.F.R. Part 63, Subpart XXXXXX, *National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories*. A summary of applicable requirements for Blast Booth 2 are listed below.

- a. Standards and Management Practices [40 C.F.R. § 63.11516]

(1) Standards for Abrasive Blasting in Vented Blast Chambers

- (i) Cianbro shall capture emissions and vent them to a filtration control device. Cianbro shall operate the filtration control device according to manufacturer's instructions and shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in § 63.11519(c)(4).
- (ii) Cianbro shall implement the management practices specified below to minimize emissions of MFHAP.
1. Cianbro shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable.
 2. Cianbro shall enclose dusty abrasive material storage areas and holding bins, seal chutes, and conveyors that transport abrasive materials.
 3. Cianbro shall operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.

(2) Standards for Abrasive Blasting of Objects with Any One Dimension Greater Than Eight Feet (2.4 meters)

For abrasive blasting of objects with any one dimension greater than 8 feet, Cianbro may implement the management practices below to minimize emissions of MFHAP instead of the practices required by paragraph (1). of this section.

- (i) Take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable.
- (ii) Enclose abrasive material storage areas and holding bins, seal chutes, and conveyors that transport abrasive material.

(iii) Operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.

(iv) Do not re-use dry abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size.

b. Notification and Reporting Requirements [40 C.F.R. § 63.11519]

(1) An Initial Notification is required to be submitted no later than July 25, 2011. [40 C.F.R. § 63.11519 (a)]

Cianbro submitted this notification on July 12, 2011.

(2) A Notification of Compliance Status was required to be submitted on or before November 22, 2011. [40 C.F.R. § 63.11519 (2)]

Cianbro submitted this notification on March 5, 2012.

(3) Cianbro shall prepare and submit an annual certification and compliance report to the Department and EPA according to the following:

(i) The report shall be prepared and submitted according to the following dates. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

1. Each annual certification and compliance report shall cover the annual reporting period from January 1 through December 31.

2. Each annual certification and compliance report shall be prepared and submitted no later than January 31 and kept in a readily accessible location for inspector review. If an exceedance has occurred during the year, each exceedance report shall be submitted with the annual certification and compliance report and postmarked or delivered no later than January 31.

(ii) The annual certification and compliance report shall contain the following information:

1. Company name and address;

2. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
 3. Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation;
 4. Records of EPA Method 22 testing as denoted below:
 - A. The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
 - B. A description of the corrective actions taken subsequent to the test; and
 - C. The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.
- (4) Cianbro shall submit a copy of the records of daily visual determinations of emissions recorded in accordance with § 63.11516(f)(7)(iv), along with the annual certification and compliance report.
- c. Recordkeeping Requirements [40 C.F.R. § 63.11519]

Cianbro shall collect and keep records of data and information according to the below paragraphs:

(1) Compliance and Applicability Records

- (i) Each notification and report that was submitted to comply with this subpart, and the documentation supporting each notification and report.
- (ii) Records of the applicability determinations as in § 63.11514(b)(1) through (5), listing equipment included in its affected source, as well as any changes to that and on what date they occurred, shall be maintained for 5 years and be made available for inspector review at any time.

(2) Visual Determination of Fugitive Emissions Records

- (i) The date and results of every visual determination of fugitive emissions;

- (ii) A description of any corrective action taken subsequent to the test; and
 - (iii) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.
- (3) Cianbro shall maintain a record of the manufacturer's specifications for the control devices used to comply with § 63.11516.
- (4) Cianbro shall maintain copies of manufacturer's instructions for operation of equipment, readily available for inspector review.
- (5) Cianbro shall maintain records according to the following requirements:
- (i) Records shall be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.
 - (ii) Cianbro shall keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record.
 - (iii) Cianbro shall keep each record on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record according to § 63.10(b)(1). Cianbro may keep the records off-site for the remaining 3 years.

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-794-71-J-M subject to the conditions found in Air Emission License A-794-71-H-R, in amendment A-794-71-I-A, 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 (19) of Air Emission License A-794-71-H-R.

(19) Blast Booth 2

- A. Cianbro shall exclusively use low PM emitting blasting media in Blast Booth 2. [06-096 C.M.R. ch. 115, BACT]
- B. Cianbro shall operate the ADFT Dust Collection System whenever Blast Booth 2 is being used [06-096 C.M.R. ch. 115, BACT]
- C. Visible emissions from Blast Booth 2 shall not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- D. Cianbro shall operate all equipment associated with Blast Booth 2, including all emissions control equipment, according to manufacturer's instructions. Compliance with this requirement shall be demonstrated by maintaining a record of the manufacturer's specifications for Blast Booth 2 and the ADFT Dust Collection System. [06-096 C.M.R. ch. 115, BACT]
- E. Cianbro shall implement a system for the maintenance, inspection, and repair for the ADFT Dust Collection System. [06-096 C.M.R. ch. 115, BACT]

- F. A written maintenance, inspection, and repair log shall be kept for the ADFT Dust Collection System in which all routine maintenance performed, as well as inspection dates, findings, and subsequent actions are recorded. [06-096 C.M.R. ch. 115, BACT]
- G. Cianbro shall use proper housekeeping practices in and around Blast Booth 2, including the proper cleaning and disposal of used or spilled materials, sweeping dust and debris routinely to minimize tracking material by moving vehicles or equipment or personnel, and the proper storage and handling of unused material and equipment. [06-096 C.M.R. ch. 115, BACT]
- H. Cianbro shall collect spent materials in proper containers in a manner that prevents extraneous dust and loss of materials until it is disposed of properly. [06-096 C.M.R. ch. 115, BACT]
- I. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart XXXXXX
 - 1. Standards and Management Practices [40 C.F.R. § 63.11516]
 - a. Standards for Abrasive Blasting in Vented Blast Chambers
 - (i) Cianbro shall capture emissions and vent them to a filtration control device. Cianbro shall operate the filtration control device according to manufacturer's instructions and shall demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in § 63.11519(c)(4).
 - (ii) Cianbro shall implement the management practices specified below to minimize emissions of MFHAP.
 - 1. Cianbro shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable.
 - 2. Cianbro shall enclose dusty abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive materials.
 - 3. Cianbro shall operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.
 - b. Standards for Abrasive Blasting of Objects with Any One Dimension Greater Than Eight Feet (2.4 meters)

For abrasive blasting of objects with any one dimension greater than 8 feet, Cianbro may implement the below management practices to minimize emissions of MFHAP instead of the practices required by paragraph (a). of this section.

- (i) Take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable.
- (ii) Enclose abrasive material storage areas and holding bins, seal chutes, and conveyors that transport abrasive material.
- (iii) Operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.
- (iv) Do not re-use dry abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size.

2. Notification and Reporting Requirements [40 C.F.R. § 63.11519]

- a. Cianbro shall prepare and submit an annual certification and compliance report to the Department and EPA according to the following:
 - (i) The report shall be prepared and submitted according to the following dates. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
 - 1. Each annual certification and compliance report shall cover the annual reporting period from January 1 through December 31.
 - 2. Each annual certification and compliance report shall be prepared and submitted no later than January 31 and kept in a readily accessible location for inspector review. If an exceedance has occurred during the year, each exceedance report shall be submitted with the annual certification and compliance report and postmarked or delivered no later than January 31.
 - (ii) The annual certification and compliance report shall contain the following information:
 - 1. Company name and address;

2. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
 3. Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation;
 4. Records of EPA Method 22 testing as denoted below:
 - A. The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
 - B. A description of the corrective actions taken subsequent to the test; and
 - C. The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.
- b. Cianbro shall submit a copy of the records of daily visual determinations of emissions recorded in accordance with § 63.11516(f)(7)(iv), along with the annual certification and compliance report.
- (v) Recordkeeping Requirements [40 C.F.R. § 63.11519]

Cianbro shall collect and keep records of data and information according to the below paragraphs:

- a. Compliance and Applicability Records
 - (i) Each notification and report that was submitted to comply with this subpart, and the documentation supporting each notification and report.
 - (ii) Records of the applicability determinations as in § 63.11514(b)(1) through (5), listing equipment included in its affected source, as well as any changes to that and on what date they occurred, shall be maintained for 5 years and be made available for inspector review at any time.
- b. Visual Determination of Fugitive Emissions Records
 - (i) The date and results of every visual determination of fugitive emissions;

- (ii) A description of any corrective action taken subsequent to the test; and
- (iii) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.
- c. Cianbro shall maintain a record of the manufacturer's specifications for the control devices used to comply with § 63.11516.
- d. Cianbro shall maintain copies of manufacturer's instructions for operation of equipment, readily available for inspector review.
- e. Cianbro shall maintain records according to the following requirements:
 - (i) Records shall be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.
 - (ii) Cianbro shall keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record.
 - (iii) Cianbro shall keep each record on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record according to § 63.10(b)(1). Cianbro may keep the records off-site for the remaining 3 years.

DONE AND DATED IN AUGUSTA, MAINE THIS 8th DAY OF FEBRUARY, 2022.

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 -794-71-H-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/19/21

Date of application acceptance: 11/29/21

Date filed with the Board of Environmental Protection:

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

