Gulf Marine Repair/Hendry Marine Industries
Tampa, Florida

Facility ID No. 0570442
Hillsborough County

Title V Air Operation Permit Revision

Permit No. 0570442-018-AV
(Revision of Title V Air Operation Permit No. 0570442-017-AV)

Permitting and Compliance Authority:

Environmental Protection Commission
of Hillsborough County
3629 Queen Palm Drive
Tampa, FL 33619
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Title V Air Operation Permit Revision

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Table of Contents

Section **Page Number**

Placard Page 1

I. Facility Information.
- A. Facility Description. ..... 2 - 3
- B. Summary of Emissions Units. 4
- C. Applicable Regulations. 4

II. Facility-wide Conditions. ..... 5 - 8

III. Emissions Units and Conditions.
- A. 001 - Exterior Coating and 002 - Interior Coating ..... 9 - 18
- B. 003 - Abrasive Blasting including Diesel Compressors; 004- Abrasive Silos and Blasting Pots; and 008 - Blasting/Coating Booth ..... …… 19 - 24

IV. Appendices. 25
- Appendix A, Glossary.
- Appendix I, List of Insignificant Emissions Units and/or Activities
- Appendix NESHAP, Subpart A – General Provisions
- Appendix NESHAP, Subpart II
- Appendix RR, Facility-wide Reporting Requirements
- Appendix TR, Facility-wide Testing Requirements
- Appendix TV, Title V General Conditions
- Appendix O&M: Operation and Maintenance (O&M) Plan
- Appendix EPC Shipyard BMP

Referenced Attachments. ..... At End
- Table H, Permit History.
- Table 1, Summary of Air Pollutant Standards and Terms.
- Table 2, Compliance Requirements.

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1800 Grant Street
Tampa, FL 33605

Draft/Proposed Permit No. 0570442-018-AV
Tampa, Florida
Facility ID No. 0570442
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. Gulf Marine Repair/Hendry Marine Industries, a ship building and repair facility, is located in Hillsborough County at 1800 Grant Street, Tampa, Florida. UTM Coordinates are: Zone 17, 358.17 km East and 3091.90 km North; and, Latitude: 27° 56' 46" North and Longitude: 82° 26' 30" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: TBD
Renewal Application Due Date: 10/3/2019
Expiration Date: 5/15/2020

_____
Janet L. Dougherty
Executive Director

JLD/LAW/law

Subsection A. Facility Description.

Gulf Marine Repair (GMR) and Hendry Marine Industries, which are located next to each other at the Port of Tampa, conduct ship building and repair operations. The process includes blasting and painting of ships and miscellaneous metal parts. GMR and Marine Industries operate at Berth Nos. 247, 248, 249, 250, 251, 252 and 253.

Gulf Marine Repair Ship Building and Repair Operations

The activities at GMR include the blasting and coating of marine vessels, which includes external and internal blasting and painting. The abrasive blasting material is stored on-site in prepackaged bags from the manufacturer or in fully enclosed trucks. When needed, the material is transferred into one of four 40-ton storage silos. The silos are pneumatically loaded at a rate of 11.5 tons per hour. The blasting equipment includes five blasting pots, each with a capacity of 40 tons. Compressed air for propelling the abrasive blasting material is provided by up to eight diesel fuel fired compressors.

Particulate matter emissions from the storage silo loading are limited by passing the displaced air through fabric filters (or baghouses). Compressor emissions are controlled by the use of diesel fuel only and by a limitation on the amount of diesel fuel used in any 12 month period. Particulate matter emissions from the blasting are minimized by limiting the amount of abrasive material used in any 12 month period, through the use of tarps/barriers that surround the blasting area, and through other reasonable precautions. When blasting an internal section of a ship, the displaced air is passed through a filter device or a tarp enclosure that covers the exhaust points from the internal blasting prior to exhausting to the atmosphere.

A partially-enclosed blasting/coating booth is used to help prepare miscellaneous metal parts prior to being installed on a ship. The booth is closed on all sides except the east side, which has a curtain/tarp that is capable of being opened and closed as needed to move metal parts in or out of the booth. The curtain/tarp is required to remain closed during any blasting or coating activities to control airborne emissions. Metal parts are blasted within the booth using blasting nozzles powered by diesel fuel fired compressors. Particulate matter emissions from the blasting operation are controlled by the building enclosure and are vented to a 40,000 acfm Industrial Vacuum Equipment Corp., Model 80-HF-4TSE, baghouse on the west side of the booth.

The booth also has a vacuum system, an Industrial Vacuum Equipment Corp., Model Hurricane 500EM Quiet Cube, with a hose to collect spent blast material from the booth. The 2,350 acfm vacuum system is also located on the west side of the booth and collects the spent blast material in two collection pots. Its operation has been determined to be insignificant based on the expected sporadic use of the system and the low airflow fan rate. During coating operations, spray nozzles are used to apply coatings to the metal parts and the baghouse can remain off but the curtain/tarp must remain closed to prevent overspray.

A portable small parts blasting/coating area is also present at the site and is comprised of tarps hung on raised wires to contain particulate matter emissions from the blasting and painting of miscellaneous parts. The small parts blasting/coating area may be used to process the parts that cannot be accommodated in the blasting/coating booth. A separate partially-enclosed storage building is also located on site to store the spent blast material until it is shipped offsite.

After blasting, the surfaces are sprayed with a series of marine coatings, which may contain one or more volatile organic compounds (VOCs) and/or hazardous air pollutants (HAPs). Coating activities covered include the painting of the main deck, the superstructure, the hull exterior, and the ship interior. In addition, a permanent coating building is present for the painting of miscellaneous metal parts. The coating building is located over an impervious surface, and is open on two sides, with tarps/curtains for control of overspray from those openings during coating operations. VOC and HAP emissions are controlled through various coating content restrictions and by limits on usage in any 12-month period.

Gulf Marine Repair/Hendry Marine Industries's Ship Building and Repair

Hendry's operations consist of various abrasive blasting and coating operations associated with ship maintenance and repair. The facility operates the activities through the use of submergible dry docks. The blasting activities involve the use of abrasive blasting material to prepare metal surfaces for painting. The abrasive blasting system consists of the following:

1) Up to two storage silos for blasting abrasive, pneumatically loaded, and equipped with a fabric sock filter. Normal loading rate is 11.5 tons/hour. Maximum loading pressure is 16 psia.
2) Up to two 24-ton capacity blasting pots.
3) A maximum of four abrasive blasting lines per pot, each with one .5" blasting nozzle operating at 100 psig. and capable of delivering 2,149 pounds/hour of abrasive material each. A total of eight blasting lines may be in use simultaneously.
4) One diesel compressor fired on No. 2 fuel oil.

Particulate matter emissions from the abrasive blasting operation are controlled by application practices and total enclosure using portable screens/tarps, which are required at all times when blasting a ship. When blasting an internal section of a ship, the displaced air is passed through a filter device or a tarp enclosure that covers the exhaust points from the internal blasting prior to exhausting to the atmosphere. A portable blasting/coating containment area is also present for the blasting and painting of miscellaneous parts.

After blasting, the surfaces are sprayed with a series of marine coatings, which may contain one or more volatile organic compounds (VOCs) and/or hazardous air pollutants (HAPs). VOC and HAP emissions from the coatings are controlled through the use of low solvent coatings and application practices (e.g. airless, brush, roller, HVLP) and limitations on the usage of coatings. The facility uses airless spray guns along with corresponding pumps as part of the coating operation. Paint overspray is controlled by application practices and total enclosure using portable screens/tarps, which are required at all times when painting a ship.

Several tanks (diesel, propane, oxygen, etc.) are located on the site for various applications but are considered insignificant due to their low level of emissions.

Combined Gulf Marine Repair/Hendry Marine Industries

GMR or Hendry Marine Industries is also authorized to operate at the Hendry's property, Hooker's Point site. The property is located directly south of the main yard and supports up to 3 additional dry docks. Operation at this site also include up to an additional 8 diesel compressors, 4 abrasive material silos, and 5 blasting pots. A maximum of 16 external blasting nozzles and 18 internal blasting nozzles can be operated on a single ship at any time. The facility can operate up to a total of 40 internal or external blasting nozzles at one time.

The combined facility, GMR/Hendry Marine Industries, is a major source of HAPs and is subject to 40 CFR 63, Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating). The combined facility is not subject to 40 CFR 63, Subpart MMMM, for the surface coating of miscellaneous metal parts and products since the facility is already subject to the Subpart II pursuant to 40 CFR 63.3881(c)(12).

In addition, the facility is subject to PM-RACT because the maximum hourly facility-wide PM PTE is greater than 5 lbs/hr and 15 tons/year. Although the silo loading is exempt from PM-RACT pursuant to Rule 62-296.700(2)(c), F.A.C., it is subject to the 5% opacity standard of Chapter 1-3.52, Paragraph 2, Rules of the EPC. The diesel compressors are subject to the 20% opacity standard of Rule 62-296.320, F.A.C. because there is no source specific category in Rule 62-296.700, F.A.C.

The abrasive blasting of ship interiors and exteriors is not subject to PM-RACT, since it is often not reasonable to enclose and vent PM emissions to a control device. However, the abrasive blasting of miscellaneous metal parts in the blasting/coating booth and blasting in the containment area prior to attachment to the ship is subject to the 5% opacity standard of Rule 62-296.712(2), F.A.C. Furthermore, the facility is subject to VOC-RACT Rule 62-296.513, F.A.C., for the surface coating operation of ship interiors and miscellaneous parts, excluding the coating of the exterior of an assembled ship.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	Exterior Coating
002	Interior Coating
003	Abrasive Blasting including Diesel Compressors
004	Abrasive Silos and Blasting Pots
008	Blasting/Coating Booth

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received August 18, 2017, this facility is a major source of hazardous air pollutants (HAP). A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
Federal Rule Citations	
40 CFR 63, Subpart A, NESHAP General Provisions	001, 002, 008
40 CFR 63, Subpart II	001, 002, 008
State Rule Citations	
Rule 62-296.513, F.A.C.	001, 002, 008
Rule 62-296.712, F.A.C.	003, 004, 008
Local Rule Citations	
Ch. 1-3, Rules of the EPCHC	003, 004, 008

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.; and EPCHC Rule 1-3.22]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department or its delegated agent, the Environmental Protection Commission of Hillsborough County.

(A) Maintaining covers, lids, etc., on all containers when they are not being handled, tapped, etc.
(B) Where possible and practical, procuring/fabricating a tightly fitting cover for any open trough, basin, etc., of VOC so that it can be covered when not in use.
(C) Attending to all spills/waste as soon as practical but no later than one hour after the event.
(D) Only airless spray applicators shall be used unless a request for use of another technology is submitted in writing and approved by the Environmental Protection Commissions of Hillsborough County.
(E) Using high solids coatings whenever they are available and whenever they meet customer specifications.
(F) Using tarps or barriers with at least 95% shade factor at all times when painting any vessel or part thereof. The tarps or barriers shall surround and extend above the painting area, with complete enclosure at all times to contain all paint overspray. Only the immediate area around the location of active painting is required to be enclosed, as long as all of the painting is contained.
(G) Enclosing, covering or filtering drains or openings in the dry dock during painting.
(H) The curtain/tarp on the east side of the blasting/coating booth (EU No. 008) shall be closed during any active coating application in order to help prevent overspray from exiting the booth. The baghouse is not required to be in operation during coating operations

[Rule 62-296.320(1)(a), F.A.C., and Permit No. 0570442-007-AC]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. Emissions from the following types of activities in Hillsborough County are further subject to a general 5% opacity standard: loading or unloading of materials to or from containers such as rail cars, trucks, ships, storage structures and stockpiles; permanent conveyor systems; storage of materials in structures such as silos or enclosed bins, which have a storage capacity of fifty cubic yards or more; crushing, grinding, sizing and screening operations; and, static drop transfer points. These regulations do not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW5. In order to limit the potential to emit (PTE), the following limitations and restrictions apply to Gulf Marine Repair/Hendry Marine Industries, as a combined facility: [Rule 62-4.070(3), F.A.C.; and Air Construction Permit Nos. 0570442-010-AC and 0571312-001-AC]

A) The maximum volatile organic compound (VOC) emissions (coating operations and compressors for blasting) shall not exceed 242.4 tons per twelve consecutive month period;
B) The maximum particulate matter (PM) emissions from the abrasive blasting operations (including diesel

compressor emissions) shall not exceed 83.4 tons per twelve consecutive month period;

C) Total HAP emissions (coating operations and compressors for blasting) shall not exceed 189.7 tons per any 12 consecutive month period.

FW6. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: [Rules 62-296.320(4)(c) and 62-213.410, F.A.C.; and Construction Permit No. 0570442-015-AC]

A) Use of coal slag, steel shot, ebony grit or metallic slag for abrasive blasting material. If new blast media material is to be used, the facility shall provide a notification to the EPCHC prior to the usage of this new material and include the corresponding SDS information.

B) Using no spent abrasive material, except for steel shot used within a closed blasting system.

C) Using wet blasting techniques if desired. In the event that wet blasting is used, the permittee shall obtain the appropriate water pollution permits in accordance with Rule 62-4.240, F.A.C., prior to commencing wet blasting.

D) Using tarps or barriers with at least 95% shade factor at all times when blasting any vessel or part thereof. The tarps or barriers shall surround and extend above the blasting surface, with complete enclosure at all times to contain the dust, limit the opacity, and to keep the dust from entering the waters of Tampa Bay. When wet blasting, the extent of the enclosure may be less.

E) Conducting all blasting from the top of the ship down and blasting with the nozzle directed downward in order to control airborne emissions except when blasting beneath the vessel or on a small part which makes it physically impractical.

F) Requiring that all blasting operators be trained on procedures which minimize airborne emissions of blasting materials. Records of training (when it was offered and who attended) shall be maintained and be made available for inspectors of the Environmental Protection Commission of Hillsborough County upon request.

G) Using only manual sweeping and vacuum systems to clean-up spent blasting materials. The permittee shall clean-up spent blasting materials and other waste prior to submerging the dry dock. No blowers are permitted.

H) Equipping all pneumatically loaded abrasive storage silos with a filtration device on the exhaust opening. The device must retain at least 90% of 25 micron or larger particulate matter.

I) Recycling or disposing of all solid waste in a permitted Class I or II landfill or other facility approved by the Environmental Protection Commission of Hillsborough County. Receipt of disposal shall be maintained on site for a period of two years and made available to inspectors upon request. [Rule 62-701, F.A.C.]

J) Enclosing, covering or filtering drains or openings in the dry dock during blasting.

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW7. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount

determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall: [40 CFR 68]

A) Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
B) Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

Other Requirements

FW10. When the Environmental Protection Commission of Hillsborough County (EPC) after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable requirement or permit condition is being violated, it may require the owner or operator of the source to conduct compliance tests which identify the nature and quantity of pollutant emissions from the source and to provide a report on the results of said tests to the EPC. [Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

FW11. **Not Enforceable:** Best Management Practices (BMP). Appendix EPC Shipyard BMP is a part of this permit to be used as a reference guideline for employing best management practices. The permittee should

continue to pursue and implement best management practices in conjunction with this guideline. The content of the BMP itself is not an enforceable part of the permit. [Rule 62-296.320 and 62-4.070(3), F.A.C.]

FW12. The use of property, facilities, equipment, processes, products, or compounds, or the commission of paint overspraying or any other act, that causes or materially contributes to a public nuisance is prohibited. [Hillsborough County Environmental Protection Act, Section 16, Chapter 84-446, Laws of Florida, as Amended.]

FW13. The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit pursuant to Rule 62-210.200, F.A.C., Modification. The changes do not include normal maintenance, but may include, and are not limited to, the following, and may also require prior authorization before implementation: [Rules 62-210.300 and 62-4.070(3), F.A.C.]

A) Alteration or replacement of any equipment* or major component of such equipment.
B) Installation or addition of any equipment* which is a source of air pollution.

*Not applicable to routine maintenance, repair, or replacement of component parts of an air emissions unit.

FW14. If the permittee wishes to transfer this permit to another owner, an "Application for Transfer of Permit" (DEP Form 62-210.900(7)) shall be submitted, in duplicate, to the Environmental Protection Commission of Hillsborough County within 30 days after the sale or legal transfer of the permitted facility. [Rule 62-4.120, F.A.C.]

Subsection A. Emissions Unit Nos. 001, 002, and 008

The specific conditions in this section apply to the following emissions unit(s):

EU No.	Brief Description
001	Exterior Coating
002	Interior Coating
008	Blasting/Coating Booth

The vessel surfaces are sprayed with a series of marine coatings, which may contain one or more volatile organic compounds (VOCs) and/or hazardous air pollutants (HAPs). Coating activities covered include the painting of the main deck, the superstructure, the hull exterior, and the ship interior.

In addition, a partially-enclosed blasting/coating booth is used to help prepare miscellaneous metal parts prior to being installed on a ship. The booth is closed on all sides except the east side, which has a curtain/tarp that is capable of being opened and closed as needed to move metal parts in or out of the booth. The curtain/tarp is required to remain closed during any coating activities to control airborne emissions.

In addition, a permanent coating building is present for the painting of miscellaneous metal parts. VOC and HAP emissions from the coating operations are controlled through various coating content restrictions and by limits on usage in any 12-month period.

For EU No. 008, this section applies only to the coating operation. The blasting operation is subject to the Specific Conditions specified in Section III. Subsection B. below.

{*Permitting note: Exterior and Interior/Miscellaneous Part Coating are regulated under 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating); and Rule 62-296.513, F.A.C. - Surface Coating of Miscellaneous Metal Parts and Products.*}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The facility-wide coating usage is limited to the following per 12 consecutive month period: [Rule 62-212.300(1)(d), F.A.C. and Air Construction Permit Nos. 0570442-010-AC and 0571312-001-AC]

A) 65,000 gallons for coatings applied to ship exteriors,
B) 40,500 gallons for coatings applied to ship interiors and miscellaneous metal parts, and
C) 11,600 gallons of thinners and solvents.

A.2. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

A.3. For any coating applied to the exterior of a completely assembled marine vessel, the volatile organic compound content of the coatings shall not exceed 3.5 pounds per gallon of coating, excluding water, delivered to the coating applicator on an annual average basis. [Rule 62-4.070(3), F.A.C. and Air Construction Permit Nos. 0570442-010-AC and 0571312-001-AC]

[Permitting note: A completely assembled marine vessel is considered a structure that has integral components assembled, including the structural completion of the hull and deck assembly, with the capacity to float.]

A.4. For any coating applied to a metal surface, other than the exterior of a completely assembled marine vessel, the volatile organic compound content of the coatings shall not exceed 3.5 pounds per gallon of coating, excluding water, delivered to the coating applicator. This shall apply to all flat metal plates, miscellaneous metal parts, ship modules, and sections fabricated for the purpose of converting or extending an existing ship. Whenever possible, all miscellaneous metal parts to be coated separate from the dry docks shall be contained within the

blasting/coating booth or the blasting/coating containment area during the coating application process. [Rules 62-296.513(2)(a)2. & 3. and 62-296.513(1)(b)10., F.A.C.; and Construction Permit No. 0570442-014-AC]

[Permitting Note: Portions of a vessel which are removed for convenience and coated separately in the new blasting/coating booth or containment area are subject to the maximum VOC content of 3.5 lb/gal as-applied as dictated in Specific Condition No. A.4. Once a part has been permanently attached to a ship and has become a part of its completed structure, it can then be identified as an external part of the ship and subject to the 3.5 pounds per gallon limit on an annual average as stated in Specific Condition No. A.3]

A.5. The VOC content of any solvents or thinners used shall not exceed 8.0 lbs/gal on an annual average basis. [Rule 62-4.070(3), F.A.C. and Air Construction Permit No. 0570442-014-AC]

A.6. In order to limit the potential to emit, the total volatile organic compound usage and emissions from the coating operations covered under this permit shall not exceed 231 tons per any 12 consecutive month period. Total HAP emissions shall not exceed 189.4 tons per any 12 consecutive month period. [Rules 62-4.070(3) and 62-212.300(1)(d), F.A.C., and Air Construction Permit Nos. 0570442-010-AC and 0571312-001-AC]

A.7. All VOC emissions from solvent washings shall be considered in the usage and emission limitations of coatings subject to Specific Condition Nos. A.1, A.3, A.4.,A.5, and A.6., unless the solvent is directed into containers that prevent evaporation into the atmosphere. [Rule 62-296.513(2)(c), F.A.C.]

40 CFR 63 (NESHAP) Subpart II Requirements

A.8. Each owner or operator of a new or existing affected source shall ensure that: [40 CFR 63.783(b)]

A) All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

B) All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

A.9. No owner or operator of any existing or new affected source shall cause or allow the application of any coating to a ship with an as-applied VOHAP content exceeding the applicable limit given in Table 1 below, as determined by the procedures described in Specific Condition No. A.15. For the compliance procedures described in Specific Condition No. A.15, VOC shall be used as a surrogate for VOHAP, and the EPA Reference Method 24 shall be used as the definitive measure for determining compliance. [40 CFR 63.783(a)]

TABLE 1: VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS

	VOHAP limits[a,b,c]		
Coating Category	grams/liter coating (minus water and exempt compounds)	grams/liter solids[d]	
		t ≥ 4.5°C	t < 4.5°C[e]
General use	340	571	728
Specialty	--	--	--
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597

TABLE 1: VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS			
	VOHAP limits[a,b,c]		
Coating Category	grams/liter coating (minus water and exempt compounds)	grams/liter solids[d]	
		t ≥ 4.5°C	t < 4.5°C[e]
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair and maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapons systems	340	571	728
Weld-through precon. Primer	650	2,885	--

[a] The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in Specific Condition No. A.15.(A), but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in Specific Condition No. A.15.B) and C).

[b] VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in Specific Condition A.15.

[c] To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

[d] VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

[e] These limits apply during cold-weather time periods, as defined in Appendix D-1. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (nonvolatiles). Such coatings are subject to the same limits regardless of weather conditions.

A.10. Specific Condition Nos. A.8. and A.9. do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total volume of coating exempt under this paragraph does not exceed 1,000 liters per year (264 gallons per year) at any facility. Coatings exempt under this paragraph shall be

clearly labeled as ‘‘low-usage exempt,’’ and the volume of each such coating applied shall be maintained in the facility’s records. [40 CFR 63.781(b)]

A.11. Specific Condition Nos. A.8. and A.9. do not apply to coatings applied with hand-held, non-refillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are subject to Specific Condition Nos. A.8. and A.9. [40 CFR 63.781(c)]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.12. For each batch of coating that is received by an affected source, the owner or operator shall (see Appendix F-1 for a flow diagram of the compliance procedures): [40 CFR 63.785(a)]

A) Determine the coating category and the applicable VOHAP limit as specified in Specific Condition No. A.9.

B) Certify the as-supplied VOC content of the batch of coating. The owner or operator may use a certification supplied by the manufacturer for the batch, although the owner or operator retains liability should subsequent testing reveal a violation. If the owner or operator performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

A.13. In lieu of testing each batch of coating, as applied, the owner or operator may determine compliance with the VOHAP limits using any combination of the procedures described in Specific Condition No. A.15. The procedure used for each coating shall be determined and documented prior to application. [40 CFR 63.785(b)(1)]

A.14. The results of any compliance demonstration conducted by the affected source or any regulatory agency using Method 24 shall take precedence over the results using the procedures in Specific Condition No. A.15. [40 CFR 63.785(b)(2)]

A.15. Coating Compliance Methods:

A) **Coatings to which thinning solvent will not be added**. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the owner or operator of an affected source shall comply as follows:

i. Certify the as-applied VOC content of each batch of coating.

ii. Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch.

iii. If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in Specific Condition No. A.8. (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.

B) **Coatings to which thinning solvent will be added--coating-by-coating compliance.** For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall comply as follows: [40 CFR 63.785(c)]

i. Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 1) for each batch as follows:

$$R = \frac{(V_s)(VOHAP\ limit) - m_{VOC}}{D_{th}} \qquad \text{Eqn. 1}$$

where:

R = Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied)

V_s = Volume fraction of solids in the batch as supplied (L solids/L coating as supplied)

VOHAP limit = Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids)

m_{voc} = VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and a exempt compounds) as supplied]

D_{th} = Density of the thinner (g/L)

If V_s is not supplied directly by the coating manufacturer, the owner or operator shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Eqn. 2}$$

where:

$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds, (g/L coating)

D_{avg} = Average density of volatiles in the batch (g/L)

The procedures specified in Specific Condition No. A.19. may be used to determine the values of variables defined in this paragraph. In addition, the owner or operator may choose to construct nomographs, based on Equation 1, similar or identical to the one provided in appendix B as a means of easily estimating the maximum allowable thinning ratio.

ii. Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating.

iii. By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

iv. By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} (R \times V_b)_i + \sum_{i=1}^{n} (R_{cold} \times V_{b\text{-}cold})_i \qquad \text{Eqn. 3}$$

where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner)

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied)

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied)

$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied)

i = Each batch of coating

n = Total number of batches of the coating

v. By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

vi. If the volume of thinner actually used with the coating [paragraph (2)(v) of this specific condition] is less than or equal to the total allowable volume of thinner for the coating [paragraph (2)(iv) of this specific condition], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.

C) **Coatings to which the same thinning solvent will be added -- group compliance.** For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the owner or operator shall comply as follows:

i. Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

ii. Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 1) for each batch of coating in the group using the equations in paragraph (2) of this specific condition.

iii. Prior to the first application of each "batch", notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating.

iv. By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

v. By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.

vi. By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

vii. If the volume of thinner actually used with the group [paragraph (3)(vi) of this section] is less than or equal to the total allowable volume of thinner for the group [paragraph (3)(v) of this specific condition], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.

A.16. A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in Specific Condition No. A.15. shall result in a 30-day violation for enforcement purposes, unless the owner or operator provides sufficient data to demonstrate the specific days during which noncompliant coatings were applied. [40 CFR 63.785(d)]

A.17. Compliance with the emission limitation of Specific Condition Nos. A.3. and A.4. shall be determined using EPA Method 24 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C., and the recordkeeping as required in Specific Condition No. A.23. Instead of Method 24, a certification by the coating manufacturer of the composition of the coating if it is supported by actual batch formulation records is acceptable. The manufacturer's certification must be consistent with EPA's document number 450/3-84-019, "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," as corrected on August 5, 1986. [Rules 62-296.500(2)(b)4. and 62-296.513(4)(a), F.A.C.]

A.18. For the compliance procedures described in Specific Condition No. A.15., Method 24 of 40 CFR 60, Appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the owner or operator shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included. [40 CFR 63.786(a)]

A.19. A coating manufacturer or the owner or operator of an affected source may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the owner or operator has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence. [40 CFR 63786(c)]

A.20. Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A of 40 CFR 63 Subpart II to determine values for the thinner and coating parameters used in Equations 1 and 2 (Specific Condition No. A.15.B)). The owner or operator shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values. [40 CFR 63.786(d)]

A.21. The EPA VOC DATA SHEET - Properties of the Coating "As Supplied" by the Manufacturer (found in 40 CFR 63 Subpart II, Appendix A), shall be kept on-site for each material and made available upon request to the Environmental Protection Commission of Hillsborough County. If any materials are added to an “as supplied” coating, then the EPA VOC DATA SHEET - Properties of the Coating “As Applied” to the Substrate for that coating shall be used. The facility may use those alternative recordkeeping sheets specifically approved in writing by the Environmental Protection Commission of Hillsborough County instead of EPA VOC DATA SHEETS “As Applied” and “As Supplied”. [Rule 62-4.070(3), F.A.C., Rule 62-296.513(4)(a), F.A.C.]

Recordkeeping and Reporting Requirements

A.22. The permittee shall maintain the records from Specific Condition A.17 on site and they shall be made available upon request to the Environmental Protection Commission of Hillsborough County. [Rule 62-296.500(2)(b)4., F.A.C.]

A.23. Compliance with the emission limitations of Specific Condition Nos. A.3., A.4. and A.6. shall be demonstrated by the following records which shall be maintained on a daily basis for the most recent five years of operation. The records shall be made available upon request by any federal, state, or local agency. [Rules 62-296.500(2)(b) and 62-213.440(1)(b)2., F.A.C.]

A) The rule number applicable to the operation for which the records are being maintained and the date.
B) The application method, and the vessel, the vessel location, or part applied to.
C) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent used at each point of application, including exempt compounds in gallons. Segregate the RACT (Specific Condition No. A.5) and non-RACT coatings (Specific Condition No. A.4), and indicate HAPs.
D) The VOC content as applied in each coating and solvent.
E) The amount of surface preparation, clean-up, wash-up solvent (including exempt compounds) used and the VOC content of each.
F) Whether any solvent washings were directed to a container that prevented evaporation into the atmosphere.
G) Sum the total VOC and HAP emissions from the coating operations and the RACT and non-RACT coating usage for each month and maintain a 12 month rolling total.

A.24. In order to demonstrate compliance with Specific Condition Nos. A.1, A.3, A.4 and A.6, the permittee shall maintain monthly records and twelve consecutive month totals on the following. The records shall be maintained for a minimum of 5 years and shall be made available upon request by any federal, state, or local agency. [Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.; and Permit No. 0570442-015-AC]

A) Month, Year
B) The coating (RACT) usage (including thinner and cleanup solvent usage.
C) The volatile organic compound usage.
D) The volatile organic compound emissions.
E) The individual HAP emissions.
F) The total HAP emissions.
G) Rolling twelve month totals of B) through F) above

A.25. Each owner or operator of an affected source shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include the following and shall be made available upon request by any federal, state, or local agency: [40 CFR 63.788(b)(2)]

A) All documentation supporting initial notification.
B) A copy of the affected source's approved implementation plan.
C) The volume of each low-usage-exempt coating applied.
D) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit.
E) Certification of the as-supplied VOC content of each batch of coating.
F) A determination of whether containers meet the standards as described in Specific Condition No. A.8.(B).
G) The results of any Method 24 measurement test conducted on individual containers of coating, as applied.

A.26. The records required by Specific Condition No. A.25. shall include additional information, as determined by the compliance procedure(s) described in Specific Condition No. A.15. that each affected source followed:

A) **Coatings to which thinning solvent will not be added.** The records maintained by facilities demonstrating compliance using the procedure described in Specific Condition No. A.15.A) shall contain the following information:

i. Certification of the as-applied VOC content of each batch of coating; and
ii. The volume of each coating applied.

B) **Coatings to which thinning solvent will be added--coating-by-coating compliance.** The records maintained by facilities demonstrating compliance using the procedure described in Specific Condition No. A.15.B) shall contain the following information:

i. The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (non-volatiles) in each batch, including any calculations;
ii. The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 1) for each batch of coating, including calculations;
iii. If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;
iv. The volume used of each batch of the coating, as supplied;
v. The total allowable volume of thinner for each coating, including calculations; and
vi. The actual volume of thinner used for each coating.

C) **Coatings to which the same thinning solvent will be added--group compliance**. The records maintained by facilities demonstrating compliance using the procedure described in Specific Condition No. A.15.C) shall contain the following information:

i. The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

ii. The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 1) for each batch of coating, including calculations;

iii. If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

iv. Identification of each group of coatings and their designated thinners;

v. The volume used of each batch of coating in the group, as supplied;

vi. The total allowable volume of thinner for the group, including calculations; and

vii. The actual volume of thinner used for the group.

[40 CFR 63.788(b)(3)]

A.27. If the owner or operator of an affected source detects a violation of the standards specified in Specific Condition Nos. A.8.and A.9., the owner or operator shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records: [40 CFR 3.788(b)(4)]

A) A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.

B) Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

C) Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

D) If, pursuant to paragraph (C) of this specific condition, the owner or operator identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

i. The magnitude of each deviation;
ii. The reason for each deviation;
iii. A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and
iv. All quality assurance activities performed on any element of the monitoring protocol.

A.28. Before the 60th day following completion of each 6-month period after the compliance date specified in 40 CFR 63.784 (December 15, 1997), each owner or operator of an affected source shall submit a report to the Environmental Protection Commission of Hillsborough County for each of the previous 6 months. The report shall include all of the information that must be retained pursuant to Specific Condition Nos. A.25. and A.26., except for that information specified in A.25.A), B), and E) and A.26.A)(i), B)(i), C)(i). If a violation at an affected source is detected, the source shall also report the information specified in Specific Condition No. A.27. of this section for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the affected source. [40 CFR 63.788(c)]

A.29. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Subsection B. Emissions Unit Nos. 003, 004, and 008

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
003	Abrasive Blasting and Diesel Compressors
004	Abrasive Silos and Blasting Pots
008	Blasting/Coating Booth

The abrasive blasting equipment used for the blasting of marine vessels and parts includes ten, 40-ton abrasive storage silos and twelve blasting pots. Compressed air for propelling the abrasive blasting material is provided by up to seventeen diesel fuel fired compressors.

A partially-enclosed blasting/coating booth is used to help prepare miscellaneous metal parts prior to being installed on a ship. Particulate matter emissions from the blasting booth are controlled by the building enclosure and are vented to a 40,000 acfm Industrial Vacuum Equipment Corp., Model 80-HF-4TSE, baghouse on the west side of the booth.

A portable small parts blasting/coating area is also present at the site and is comprised of tarps hung on raised wires to contain particulate matter emissions from the blasting of miscellaneous parts. The small parts blasting/coating area may be used to process the parts that cannot be accommodated in the blasting/coating booth.

Particulate matter emissions from the storage silo loading are limited by passing the displaced air through fabric filters (or baghouses). Compressor emissions are controlled by the use of diesel fuel only and by a limitation on the amount of diesel fuel used in any 12 month period. Particulate matter emissions from the blasting are minimized by limiting the amount of abrasive blast material used in any 12 month period, through the use of tarps/barriers that surround the blasting area, and through other reasonable precautions. When blasting an internal section of a ship, the displaced air is passed through a filter device or a tarp enclosure that covers the exhaust points from the internal blasting prior to exhausting to the atmosphere.

For EU No. 008, this section applies only to the blasting operation. The coating operation is subject to the Specific Conditions specified in Section III. Subsection A. above.

{*Permitting note: These emission units are regulated under Rule 62-296.712, F.A.C. - Miscellaneous Manufacturing Process Operations.*}

<u>Essential Potential to Emit (PTE) Parameters</u>

B.1. Only diesel fuel shall be burned in the diesel compressors. No used or waste oils shall be burned in the diesel compressors. [Rule 62-4.070(3), F.A.C.]

B.2. The following operating and usage restrictions shall apply: [Rules 62-212.300(1)(d) and 62-4.070(3), F.A.C., and Permit No. 0570442-010-AC]

A) No more than 24,370 tons of abrasive shall be used in any 12 month period.
B) No more than 473,040 gallons diesel fuel shall be used in any 12 month period. The sulfur content of the fuel shall not exceed 0.05 percent by weight.
C) All dust laden air which is displaced in the silo loading process shall be filtered before being discharged to the ambient air.
D) No more than 4 blasting nozzles shall be in use at any given time in the blasting/coating booth
E) Blasting operations are individually limited to a maximum of 16 external blasting nozzles and 18 internal blasting nozzles in operation on a single ship at any time. The <u>facility</u> may operate up to 40 internal or external blasting nozzles at one time; however, no more than the maximum number as demonstrated by the latest compliance test can be operated on a single ship.
F) The maximum loading pressure for each abrasive blasting storage silo shall not exceed 15 psia.

B.3. The following reasonable precautions shall be taken to control the emissions of unconfined particulate matter associated with the abrasive blasting booth (EU No. 008) and to ensure compliance with Specific Condition Nos. B.2., B.8., and B.9.: [Rules 62-296.320(4)(c)2. and 62-4.070(3), F.A.C.; Permit Nos. 0570442-014/015-AC]

A) The exhaust system (baghouse) for the blasting operation shall be in operation at all times during active blasting of parts in the booth.
B) All miscellaneous metal parts to be blasted separate from the dry docks shall be placed within the blasting/coating booth (EU No. 008) whenever practical. The small parts blasting/coating area may remain active and may be used to process parts that cannot be accommodated in the booth.
C) The permittee shall operate and maintain a measuring device to determine the air pressure differential across the baghouse associated with the blasting/coating booth (EU No. 008) within 10 percent accuracy.
D) A weekly inspection of the blasting control system shall be conducted and recorded (if operated during the week) to ensure that the system is operating as designed.
E) In order to provide reasonable assurance that the pollution control equipment are operated and maintained adequately, the permittee shall comply with the conditions of the Appendix OM-1: Operation and Maintenance (O&M) Plan for particulate matter control of Emission Unit No. 008, which is attached as part of this permit.

B.4. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-212.300(1)(d) and 62-4.070(3), F.A.C., and Permit No. 0570442-010-AC]

B.5. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.6. If a stationary diesel compressor is added to the facility, the permittee shall determine the applicability of 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ, and provide notification of the result to the permitting authority prior to initiating any installation of such a unit. [40 CFR 60.4200(a)(2), 40 CFR 63.6585, and Rule 62-4.070(3), F.A.C.]

B.7. In order to limit the potential to emit to exempt the facility from Rule 62-212.400, F.A.C., the maximum particulate matter emissions from the abrasive blasting operations shall not exceed 83.4 tons (including diesel compressor and silo/pot loading emissions) for any 12 consecutive month period.[Rule 62-212.300(1)(d), F.A.C. and Permit Nos. 0570442-010-AC and 0571312-001-AC]

B.8. The permittee shall not cause, permit, or allow emissions of particulate matter in excess of 0.03 gr/dscf from the baghouse that controls the blasting operation in the blasting/coating booth (EU No. 008). [Rule 62-296.712(2), F.A.C. and Permit No. 0570442-014-AC]

B.9. In order to limit the potential to emit (PTE), the following limitations and restrictions shall apply: [Rules 62-4.070(3), 62-296.320(4)(b)1. and 62-296.712(2), F.A.C., Chapter 1-3.52, Rules of the EPCHC, Permit Nos. 0570442-010-AC, 012-AC and 014-AC]

A) Visible emissions from the abrasive blasting activities (includes external ship blasting operations, internal ship blasting and the diesel air compressors) shall not be equal to or greater than 20% opacity;
B) Visible emissions from the abrasive abrasive storage silos and abrasive blasting of miscellaneous metal parts in the blasting/coating booth or the blasting/coating containment area, shall not be greater than 5% opacity.
C) Visible emissions from any opening of the blasting/coating booth (EU No. 008), or the exhaust from the baghouse controlling the blasting/coating booth, shall not be greater than 5 percent opacity.

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.10. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided (1) best practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the EPCHC for longer duration. [Rule 62-210.700(1), F.A.C.]

B.11. Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(1), F.A.C.]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.12. To ensure compliance with Specific Condition B.9., the permittee shall conduct 12 minute visible emission (VE) observations using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The testing shall be conducted as follows:

A)

Activity/Unit	Frequency	Condition
External Blasting	Once per day[1,2]	At point of maximum opacity leaving the dry dock/tarp enclosure
abrasive Silos	One silo, per ship[2]	During abrasive loading
Diesel Compressors	One compressor, per day[2,3]	Compressor with highest visible emissions

[1] - If multiple ships are being blasted on the same day, the 12-minute VE observation should be performed on the ship with the highest visible emission observed during a comprehensive scan of the area. Records of the total number of nozzles in operation across the facility shall be recorded with each observation.

[2] - Any observed malfunctions from the silos, diesel compressors or blasting activities shall initiate immediate corrective action to maintain visible emissions below the applicable opacity standard. This includes contracted silos brought in for specific blasting activities.

[3] - If multiple ships are being blasted on the same day, the VE observation should be performed on the compressor with the highest visible emission observed during a review of all compressors operating. If wet-blasting of parts is occurring and the diesel compressors are not being utilized, then no 12-minute VE observation is required; however, records indicating this type of blasting and the times in operation must be maintained.

B) Any activity that occurs only during the nighttime hours without the opportunity to perform the appropriate visible emission test shall be excluded from testing; however, detailed records shall be maintained indicating the affected vessels, type of activity, and documentation of times that the activity was occurring. These

records shall be maintained with the test records above and be summarized as stated in Specific Condition No. B.25.E).

[Rules 62-213.440(b)1.b. and 62-4.070(3), F.A.C.]

B.13. When internal blasting is being performed with the displaced air being vented to a portable control device, a visible emissions check shall be performed during the blasting operation as follows: [Rule 62-4.070(3), F.A.C.]

A) If any emissions are observed, the permittee shall immediately conduct a 12-minute visible emission observation using EPA Method 9 contained in 40 CFR 60, Appendix A.
B) If any emissions over 20% opacity are observed, the permittee shall initiate immediate corrective action to eliminate excessive visible emissions.
C) If internal blasting occurs entirely during nighttime hours and VE observations are not practical, detailed records shall be maintained to document the affected vessel and the time of the activity.
D) Records of the VE checks, VE observations, formal VE tests, nighttime internal blasting and any maintenance performed shall be maintained in conjunction with Specific Condition Nos. B.9 and B.25.E).

B.14. To ensure compliance with Specific Condition B.9., a visible emission check of the blasting/coating booth and baghouse exhaust stack shall be performed during active blasting operations on any date that blasting occurs in the booth as follows: [Rules 62-296.320(4)(c)2. and 62-4.070(3), F.A.C.; Permit Nos. 0570442-007/014/015-AC]

A) If any emissions are observed, the permittee shall immediately conduct a 12-minute visible emission observation during active blasting using EPA Method 9 contained in 40 CFR 60, Appendix A to ensure compliance with the 5% opacity limit. If any emissions over 5% opacity are observed, the permittee shall initiate immediate corrective action to eliminate excessive visible emissions.
B) In the event a certified observer is not on-site during blasting operations requiring an EPA Method 9 test, a back-up monitoring approach will be conducted as follows:

a. Inspection of the active blasting area to ensure it meets the criteria of complete enclosure when blasting and to confirm designed operation of the baghouse to capture and control emissions.
b. Inspection of all blasting equipment being used (blast nozzles, blasting pot, compressors, booth enclosure, etc.) for any obvious opacity related problems.
c. An inspection log will be completed with notes on all corrective actions performed.

B.15. During each calendar year (January 1st – December 31st), unless otherwise specified by rule, order, or permit, the permittee shall have a formal compliance test conducted as follows to demonstrate compliance with Specific Condition B.6. [Rule 62-297.310(8)(a)1., F.A.C.]

A) The tests shall include testing at the point of highest observed opacity for external blasting, internal blasting, silo loading, and diesel compressor operations. If a required testing point is not operated during the fiscal year, a test is not required for that affected source; however, a VE test is required at the next instance of that source's operation.

B) Individual testing for both internal and external blasting is required to establish the maximum permitted nozzle usage on a single ship. External nozzle usage is limited to 16 nozzles on a single ship, but must be tested at capacity annually to maintain that limit. Internal nozzle usage is limited to 18 nozzles on a single ship, but must be tested at capacity annually to maintain that limit. Both internal and external nozzle usage is also limited to a facility-wide total of 40 nozzles each.

C) For the blasting/coating booth (EU No. 008), the tests for opacity shall be performed on the following two points: 1) the exhaust of the baghouse controlling the blasting booth operations, and 2) the east side of the blasting booth (tarp enclosure). Particulate matter testing may be required if the EPC has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that the applicable standard is being violated.

B.16. New Blast Media Material: If a new blast media material is to be used, the facility shall notify EPCHC and provide an SDS of the new material. The facility shall perform a VE test the first time the new blast media material is used at the facility and submit the results to the EPCHC. [Rule 62-4.070(3), F.A.C.]

B.17. Compliance with Specific Condition B.9. shall be determined using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. All EPA Method 9 compliance testing observation periods shall be at least thirty (30) minutes in duration, unless specifically defined by another condition within this permit. The observation point for each blasting operation test shall be at the point of maximum opacity leaving the dry dock enclosure, tarp enclosure, or wind screens, whichever is applicable. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rules 62-296.320(4)(b)4. and 62-4.070(3), F.A.C.]

B.18. Compliance testing for the external and internal abrasive blasting operation shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of rated capacity, meaning the uninterrupted operation of sixteen external abrasive blasting nozzles per ship (90% rated capacity is represented by fifteen nozzles) and eighteen internal abrasive blasting nozzles per ship (90% rated capacity is represented by seventeen nozzles). Internal and external blasting must be tested separately to establish individual maximum nozzle usage per ship, up to the maximum stated. Failure to submit the input rates and actual operating conditions, including the number of nozzles that operated, may invalidate the test. Ambient wind speed and direction shall be reported with the test. [Rules 62-4.070(3) and 62-297.310, F.A.C.]

B.19. Compliance testing for the silo loading and compressors should be performed with each operating at the maximum typical loading rates. Silo loading should occur at a minimum of 11 psi to ensure typical loading rates. If it is impracticable to test at the testing capacity, an emissions unit may be tested at less than the testing capacity. If an emissions unit is tested at less than the testing capacity, another emissions test shall be conducted and completed no later than 60 days after the emissions unit operation exceeds 110% of the capacity at which its most recent emissions test was conducted. Failure to submit actual test data including the pneumatic loading pressure from the truck to the silo during silo filling and the operating pressure to the line from the compressor may invalidate the tests. [Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

B.20. Compliance testing for the blasting/coating booth (EU No. 008) shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of rated capacity, meaning the uninterrupted operation of four abrasive blasting nozzles. Testing with only three blasting nozzles does not allow for operation with four nozzles until additional testing, which demonstrates compliance, to regain capacity is completed. Failure to submit the input rates and actual operating conditions, including the number of nozzles and the operating pressure to the line from the compressor that operated, may invalidate the test. [Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

B.21. If it is impracticable to test at the testing capacity, an emissions unit may be tested at less than the testing capacity. If an emissions unit is tested at less than the testing capacity, another emissions test shall be conducted and completed no later than 60 days after the emissions unit operation exceeds 110% of the capacity at which its most recent emissions test was conducted. [Rules 62-4.070(3) and 62-297.310, F.A.C.]

B.22. At least 15 days prior to the date on which each required emissions test is to begin, the owner or operator shall notify the EPCHC, unless shorter notice is agreed to by the EPCHC. The notification shall include the date, time, place of each such test, Facility ID Number, Emission Unit ID Number(s) and description(s),

Emission Point Number(s) and description(s), test method(s), pollutant(s) to be tested, along with the name and telephone number of the person who will be responsible for conducting such test(s) for the owner or operator. If a scheduled emissions test needs to be re-scheduled, the owner or operator shall submit to the appropriate air compliance program a revised notification at least seven days prior to the re-scheduled emissions test date or arrange a re-scheduled test date with the appropriate air compliance program by mutual agreement. In addition, tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(9), F.A.C..]

B.23. Test Methods. When required, tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.]

B.24. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

B.25. In order to insure compliance with the permit restrictions and emission limitations of Specific Condition Nos. B.1., B.2., and B.3., the permittee shall maintain the following records: [Rule 62-4.070(3), F.A.C.]

A) Daily amount and type of abrasive blasting material used.
B) Monthly and 12-month rolling totals of abrasive blasting material used and associated PM emissions.
C) Number of blasting nozzles used per blasting operation on the dry dock and at the blasting/coating booth or containment area for the miscellaneous metals parts blasting.
D) Monthly and 12-month rolling totals of the amount of diesel fuel used.
E) The permittee shall also maintain monthly records of periodic monitoring results in order to demonstrate compliance with Specific Condition Nos. B.9., B.12., B.13., and B.14. The periodic monitoring records should document all required VE observations including dates, times and ship identity. The records should also identify any nighttime blasting activities that prevented required observations or testing including appropriate dates, times and ship identity.

B.26. Records required by Specific Condition B.25. shall be maintained for a minimum of 5 years and the calendar year-ending 12-month totals from Specific Condition B.25. shall be included in the "Annual Operating Report for Air Pollutant Emitting Facility" (see Facility-Wide Condition FW7). [Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]