Tampa Ship, LLC

Tampa, Florida

Facility ID No. 0570286

Hillsborough County

Title V Air Operation Permit Renewal

FINAL Permit No. 0570286-031-AV

(Renewal of Title V Air Operation Permit No. 0570286-028-AV)

Permitting and Compliance Authority:

Environmental Protection Commission
of Hillsborough County
3629 Queen Palm Drive
Tampa, FL 33619
Telephone: (813) 627-2600
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PERMITTEE:
Tampa Ship, LLC
1130 McClosky Blvd.
Tampa, FL 33605

FINAL Permit No.: 0570286-031-AV
Tampa, Florida
Facility ID No. 0570286
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The shipbuilding and ship repair facility is located in Hillsborough County at 1130 McClosky Blvd., Tampa, Florida. UTM Coordinates are: Zone 17, 358.00 km East and 3089.00 km North. Latitude is: 27° 55' 30" North; and Longitude is: 82° 26' 42" West.

The FINAL 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: November 3, 2011
Renewal Application Due Date: March 23, 2016
Expiration Date: November 3, 2016

_____
Richard D. Garrity, Ph.D.
Executive Director

RDG/SRH/srh

Subsection A. Facility Description.

The primary activities currently at this facility are the blasting and coating of marine parts and vessels (interior and exterior sections) in the process of building new ships, as well as maintaining and repairing existing ships. Metal parts and modules can also be fabricated for new or existing ships which may be expanded though use of expansion modules. Interior and exterior blasting is performed using abrasive grit (coal slag or steel shot/slag) from blasting nozzles with tarps completely enclosing the blasting area to control emissions. Hydroblasting is also used on the exterior and interior of the ships. Coating is performed using spray nozzles, rollers, and brushes with tarps and barriers used to help control overspray. Stationary electric compressors and portable diesel compressors, owned by Tampa Ship or outside contractors, are brought on-site and used to provide pressure for blasting and painting.

The facility is comprised of four dry docks (graving docks), five wet berths, an erection facility that partially covers Graving Dock #4, and a panel line building where parts of modules are fabricated. Other miscellaneous buildings for new and used coating storage, maintenance shops, etc. are also present at the site. The main abrasive material used for ship blasting is coal slag, which is stored on-site in storage silos. The silos are pneumatically loaded, typically at a rate up to 15 tons per hour. The blasting equipment includes blasting pots and a maximum of 16 external blasting nozzles. Both external and internal blasting of ships occurs at the facility. Compressed air for propelling the abrasive grit is provided by diesel compressors, each with a maximum air flow rate of 1,750 cubic feet per minute. Steel shot/slag is also an approved blasting media and hydroblasting is also used on the exterior and interior of the ships.

Particulate matter emissions from the storage silo loading and the transfer of product to the blasting pots are minimized by venting the displaced air through a fabric filter. Dust suppressant(s) may also be utilized to help minimize particulate matter emissions and limit the emissions to 5% opacity or less, pursuant to Rule 1-3.52, Rules of the EPC. Compressor emissions are controlled by the use of diesel fuel only and a limitation on the amount of diesel fuel used in any 12 month period. Particulate matter emissions from blasting are minimized with a limit on the amount of abrasive grit used in any 12 month period, the use of tarps/barriers that completely enclose the blasting area, and best management practices. 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. 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 are controlled through VOC content restrictions and limits on usage in any 12-month period.

The blasting/coating booth (EU 102) is enclosed within a larger exterior building (referred to as the Surface Preparation Building) to help protect it from the elements. Miscellaneous metal parts are fabricated and prepared (steel shot blasted and coated) prior to being installed on a ship. Both blasting and coating can be performed in the same booth, however, parts that are not able to be coated in the blasting/coating booth may be coated in the small/miscellaneous parts blasting/coating area adjacent to the Surface Preparation Building. The small/miscellaneous parts blasting/coating area is completely enclosed with stationary tarps on all sides and the top to control overspray and PM emissions. The small/miscellaneous parts blasting/coating area may be expanded and partitioned with tarps to accommodate multiple color paint spraying, as long as the complete enclosure is maintained and there is an impervious surface underneath the coating area to protect contaminants from entering the soil. The expansion will not exceed the square footage of the current small/miscellaneous parts blasting/coating area. This area will remain active, but it will only be used to process those parts that cannot be accommodated in the Surface Preparation Building in order to minimize emissions to the extent practicable.

PM emissions from blasting and coating inside the blasting/coating booth are controlled by separate control devices. Sliding doors are utilized to cover the inlet coating exhaust filter chambers during blasting operations and, conversely, moved to cover the baffled exhaust plenums to the blasting baghouse during coating operations. Exterior doors of the

booth should be closed as much as practical during any blasting or coating operation. The blasting/coating booth is 30' wide by 25' high by 60' long. The Blasting/Coating Booth (EU 102) and the small/miscellaneous parts blasting/coating area are primarily used for coating small parts, although they can also accommodate larger parts.

The blasting media for the booth is steel shot that is recycled after blasting. Two (2) blasting nozzles are utilized to remove paint, rust, etc. from the metal pieces in preparation for coating. The used blast material is collected, sized and reclaimed through a reclaim hopper, bucket elevator, air wash separator and 200 yd^3 storage hopper. Beneath the hopper is a blasting pot where the shot is pressurized for blasting with electric compressors. The bucket elevator, air wash separator, and storage hopper are located outside of the booth, but within the Surface Preparation Building housing the booth. Particulate Matter emissions from the blasting process and the recycling of the steel shot are vented through a 38,000 acfm Donaldson/Torit Model ADFT 4-64 cartridge baghouse with a pulse jet cleaning mechanism located outside of the exterior building. Particulate Matter emissions from the blasting/steel shot recycling operation exhaust through a single emission point following the Donaldson/Torit baghouse.

The coating operation is controlled by two (2) 37,500 acfm exhaust fans that are used to vent VOC emissions from the building. Each fan is connected to an exhaust plenum that is covered with filters at the wall inlets to collect overspray. Each fan has its own exhaust point above the booth and exterior building that pulls the air from different sides of the booth. VOC emissions from the coatings are controlled through the use of low solvent coatings, application practices, and limitations on the usage of coatings.

Coating of all metal parts within the Surface Preparation Building and small/miscellaneous parts blasting/coating area is subject to VOC-RACT (Rule 62-296.513, F.A.C.) and coatings cannot exceed 3.5 lbs/gallon of VOC as applied. Blasting of all metal parts within the Surface Preparation Building (EU 102) and the small/miscellaneous parts blasting/coating area is subject to PM-RACT (Rule 62.296.712, F.A.C.) and a 5% opacity limit. The transfer of abrasive materials into storage silos and blasting pots is subject to Rule 1-3.52, Rules of the EPC, with a 5% opacity standard. The abrasive blasting of marine vessels is subject to the 20% opacity standard of Rule 62-296.320(4)(b)1., F.A.C. The entire facility falls under the CAA §112(d) MACT category for Shipbuilding and Repair facilities (40 CFR 63, Subpart II).

The current allowable facility-wide emissions for VOC, HAP, and PM are 487, 379, and 92.4 tons per year, respectively. The coating limits for the blasting/coating booth (EU 102) are standalone, but are considered part of the overall facility-wide usage limits.

Also included in this permit is a list of insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Renewal application received January 7, 2011 this facility is a major source of PM, NOx, VOC, and HAPs and is subject to 40 CFR 63, Subpart II – National Emission Standards for Shipbuilding and Ship Repair (Surface Coating).

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
002	Silos
003	Blasting Pots
004	Blasting Nozzles
005	Diesel Compressors
100	Exterior Ship RACT-Exempt Coatings

101	Interior Ship/Miscellaneous Parts RACT Coatings
102	Blasting/Coating Booth

Subsection C. Applicable Regulations.

A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
40 CFR 63, Subpart A, NESHAP General Provisions	100, 101, 102
40 CFR 63, Subpart II, National Emission Standards for Shipbuilding and Ship Repair	100, 101, 102
Rule 62-296.320(4)(b)1., F.A.C., General Visible Emissions Standard	004, 005, 100, 101
Rule 62-296.513, F.A.C., VOC-RACT	101, 102
Rule 62.296.712, F.A.C., PM-RACT	102
Rule 1-3.52.2, Rules of the EPC	002, 003

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.]

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, procure/fabricate 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) Using only airless spray applicators, rollers and brushes unless a request for use of another technology is submitted in writing and approved by the Environmental Protection Commission of Hillsborough County. Air assisted spray applicators may also be used inside the blasting/coating booth (EU102).
E) Using high solids coatings whenever they are available and whenever they meet customer specifications.
F) Using barriers or tarps with at least 95% shade factor at all times when painting any vessel or part thereof above the top of the dock line. Painting that occurs below the top of the dock line must also utilize tarps or barriers, but only a minimum of 80% shade factor is required. 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. Tarps are not required when painting a vessel in a graving dock if the paint is being applied under the level that is 10 feet below the top of the graving dock. Any painting on a vessel above that level must be fully enclosed to contain overspray. Records indicating instances when painting is applied without tarps shall be documented and maintained for the most recent five years of operation.
G) Enclosing, covering or filtering drains or openings in the dry dock during painting.

[Rule 62-296.320(1), F.A.C.; and Permit No. 0570286-028-AV]

FW4. General Visible Emissions. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, 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. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW5. 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:

A) Using only coal slag or steel shot/slag for abrasive blasting material unless prior approval is received from the Environmental Protection Commission of Hillsborough County to use another material. Hydroblasting is also an approved method for ship blasting.

B) Using no spent abrasive material, except for steel shot used within a closed blasting system. Steel shot can be reused within an open system, but only if all foreign material has been removed from the spent steel shot prior to reuse.

C) Using wet grit blasting techniques if desired. In the event that wet grit blasting is used, the permittee may be required to obtain authorization in accordance with Rule 62-4.240, F.A.C., prior to commencing wet blasting. No tarps are required when hydroblasting ship surfaces as long as all of blasted material is contained and prevented from being released as fugitive dust.

D) Using barriers or tarps with at least 95% shade factor at all times when blasting any vessel or part thereof above the top of the dock line. Blasting that occurs below the top of the dock line must also utilize tarps or barriers, but only a minimum of 80% shade factor is required. The tarps or barriers shall surround and extend above the blasting surface, with complete enclosure at all times to contain the dust and limit the opacity to below 20% and to minimize 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) Grit silos and blasting pots shall be equipped with particulate filters to ensure emissions do not exceed 5% opacity. Dust suppressants may be used on the abrasive material in conjunction with particulate filters in order to further reduce particulate matter emissions from the silos and blasting pots.

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

[Rule 62-296.320(4)(c), F.A.C., Rule 62-296.712, F.A.C., Rule 1-3.52, Rules of the EPC, and Permit No. 0570286-028-AV]

Annual Reports and Fees

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

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. Emissions calculations shall be done in accordance with the following emissions factors and control efficiencies:

A) Exterior (RACT-Exempt) Coatings

VOC	actual VOC content, as applied
HAP*	for each HAP, based on actual HAP(s) from MSDS and material usage

B) Interior (RACT) Coatings

VOC	actual VOC content, as applied
HAP*	for each HAP, based on actual HAP(s) from MSDS and material usage

C) Ship Exterior/Interior Abrasive Grit Blasting Operations	0.01 lbs PM/lb abrasive (coal slag) with 90% control efficiency for 95% shade factor tarps and partial enclosure	
D) Ship Exterior/Interior Abrasive Grit Blasting Pots and Silos	0.056 lbs PM/ton	
E) Ship Exterior/Interior Paint Overspray	15 % of Exterior (RACT-Exempt) Coatings contributing to PM emissions	
F) Diesel Combustion**		
NO_x	4.41 lbs/MMBtu	(AP-42, Section 3.3)
PM	0.31 lbs/MMBtu	(AP-42, Section 3.3)
VOC	0.35 lbs/MMBtu	(AP-42, Section 3.3)
CO	0.95 lbs/MMBtu	(AP-42, Section 3.3)
SO_2	0.29 lbs/MMBtu	(AP-42, Section 3.3)
G) Blasting/Coating Booth	0.004 lbs PM/lb abrasive (steel shot) with 99% control efficiency for baghouse	

* Potential HAP emissions are based on the assumption that 80.2% of the VOC emissions are HAPs.
** If compressors greater than 600 hp are utilized at the facility, then emission calculations from those compressors shall utilize emission factors from AP-42, Section 3.4.
[Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download 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. [Rule 62-213.205, F.A.C.]

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 within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

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

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.

[40 CFR 68]

Additional Conditions

FW10. The maximum allowable VOC emissions from this facility shall not exceed 487 tons for any twelve (12) consecutive month period. The maximum allowable PM emissions from this facility shall not exceed 92.4 tons for any twelve (12) consecutive month period. [Rules 62-212.300, 62-4.070(3) and 62-296.320, F.A.C.]

FW11. The HAP, as defined in Rule 62-210.200, F.A.C., emissions shall not exceed 379 tons for any 12 consecutive month period. [Rule 62-210.300(2)(b), F.A.C. and Permit No. 0570286-028-AV]

FW12. 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. For the purpose of confirming compliance with the emission limitations in this permit, the EPC may require the use of EPA Method 9, EPA Method 24, or other approved methods, as deemed necessary.
[Rules 62-297.310(7)(b) and 62-4.070(3), F.A.C.]

FW13. 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.]

FW14. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating an having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C.]

FW15. 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.

FW16. 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.]

FW17. Any reports, data, notifications, certifications, and requests required to be sent to the Environmental Protection Commission of Hillsborough County shall be sent to:

Environmental Protection Commission of Hillsborough County
Air Management Division
3629 Queen Palm Drive
Tampa, FL 33619

FW18. Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency Region 4 should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides and Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

FW19. BMP GUIDANCE (Not Enforceable): Best Management Practices (BMP). Appendix Tampa Ship 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 a permit condition nor will the non-compliance of the stated practices be assumed to be a regulatory requirement. The BMP is a facility goal and Tampa Ship will strive to achieve the practices of the BMP whenever practical. The BMP is considered a work in progress and will reflect practices best utilized at Tampa Ship.
[Rule 62-296.320 and 62-4.070(3), F.A.C.]

FW20. The permittee shall notify the Environmental Protection Commission of Hillsborough County in writing at least 15 days prior to the date or as soon as practicable that blasting and/or painting is scheduled to commence on each vessel of the dates and times that the blasting and painting are scheduled to be performed on that vessel. The primary form of notification will be via fax, but notification by phone or email will be accepted if notification by fax is unavailable.
[Rule 62-4.070(3), F.A.C.]

FW21. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which defines day one.
[Rule 62-213.440, F.A.C.]

FW22. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

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

EU No.	Brief Description
100	Exterior Ship RACT-Exempt Coatings
101	Interior Ship/Miscellaneous Parts RACT Coatings

Miscellaneous internal and external sections of marine vessels and associated parts are coated 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 are controlled through various coating content restrictions and limits on usage in any 12-month period. Overspray from painting is controlled by the use of tarps/screens.

{Permitting note: These emission units are regulated under 40 CFR 63, Subpart A - General Provisions and 40 CFR 63, Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating).}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable coating and solvent usage rate is as follows:

EU No.	Coating Usage Gallons/12-consecutive month period*	Thinner/Solvent Usage Gallons/12-consecutive month period*
100, 101	270,000	16,000

*Limit includes coatings utilized in the Blasting/Coating Booth (EU 102)

[Rule 62-212.300(1)(d), F.A.C., Air Construction Permit Nos. 0570286-023-AC and 0570286-026-AC]

A.2. Hours of Operation. These emissions units may operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-4.070(3), F.A.C.]

Emission Limitations and Standards

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

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 a rolling twelve (12) month basis. [Rule 62-4.070(3), F.A.C. and Air Construction Permit No. 0570286-023-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 parts to be coated should be contained within the blasting/coating booth (EU 102) during the application process.
[Rules 62-296.513(2)(a)2. & 3. and 62-296.513(1)(b)10., F.A.C.]

{Permitting note: Once a module has been permanently attached to a ship and 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 lb/gal limit on an annual average as indicated in A.3.}

A.5. The total facility-wide volatile organic compound (VOC) emissions from the coating operations (including the blasting/coating booth (EU102)) shall not exceed 473 tons per any 12 consecutive month period. The total VOC emissions from the facility (all coating and blasting operations, including compressor emissions) shall not exceed 487 tons per any twelve consecutive month period. Total PM emissions due to paint overspray shall not exceed 25.4 tons per twelve consecutive month period. The total facility-wide HAP emissions shall not exceed 379 tons per any twelve consecutive month period.
[Rules 62-4.070(3), 62-212.300(1)(d), F.A.C., Air Construction Permit Nos. 0570286-023-AC and 0570286-026-AC]

A.6. 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., and A.5., unless the solvent is directed into containers that prevent evaporation into the atmosphere.
[Rule 62-296.513(2)(c), F.A.C.]

A.7. 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 at the end of Subsection A, as determined by the procedures described in Specific Condition A.14. For the compliance procedures described in Specific Condition A.14., 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)]

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

A.9. Specific Conditions A.7. and A.8. 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.10. Specific Conditions A.7. and A.8. do not apply to coatings applied with hand-held, nonrefillable, 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 Conditions A.7. and A.8.
[40 CFR 63.781(c)]

<u>VOHAP Compliance Procedures</u>

A.11. 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):
(A) Determine the coating category and the applicable VOHAP limit as specified in Specific Conditions A.7 and A.14.
(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.
[40 CFR 63.785(a)]

A.12. 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 A.14. The procedure used for each coating shall be determined and documented prior to application.
[40 CFR 63.785(b)]

A.13. 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 A.14. [40 CFR 63.785(b)]

A.14. Coating Compliance Methods:
(1) 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 A.7. (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.

(2) 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:

(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 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); and

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

The procedures specified in Specific Condition 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; and

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.

(3) <u>Coatings to which the same thinning solvent will be added--group compliance</u>. 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.

[40 CFR 63.785(c)]

A.15. 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 A.14., 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)]

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.16. Test Method. Required tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
24	Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings.

The above method is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.

Compliance with the emission limitations of Specific Conditions 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 A.21. 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.17. For the compliance procedures described in Specific Condition A.14., Method 24 of 40 CFR Part 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.18. 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 63.786(c)]

A.19. Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in Appendix A to determine values for the thinner and coating parameters used in Equations 1 and 2. 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)]

Recordkeeping and Reporting Requirements

A.20. The EPA VOC DATA SHEET - Properties of the Coating "As Supplied" by the Manufacturer, 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. Tampa Ship 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., and Air Construction Permit No. 0570286-021-AC]

A.21. Compliance with the emission limitations of Specific Conditions A.3. and A.4. shall be demonstrated by the following records which shall be maintained on a daily basis for the most recent five years of operation:
[Rules 62-296.500(2)(b) and 62-213.440(1)(b)2., F.A.C., and Construction Permit No. 0570286-021-AC]

(1) The rule number applicable to the operation for which the records are being maintained and the date.
(2) The application method, and the vessel, the vessel location, or part applied to.
(3) The amount and type of coatings (including catalyst and reducer for multicomponent coatings) and solvent used at each point of application, including exempt compounds in gallons. Segregate the RACT and non-RACT coatings, and indicate individual HAPs.
(4) The VOC content as applied in each coating and solvent.
(5) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each.
(6) Whether any solvent washings were directed to a container that prevented evaporation into the atmosphere.

A.22. In order to demonstrate compliance with Specific Conditions A.1., A.3., A.4., and A.5., the permittee shall maintain monthly records and rolling twelve month totals on coating usage (RACT and Non-RACT), volatile organic compound usage, volatile organic compound emissions, individual HAP emissions, and total HAP emissions. The records shall be maintained for a minimum of 5 years.
[Rules 62-070(3) and 62-213.440(1)(b)2., F.A.C., and Construction Permit No. 0570286-021-AC]

A.23. The permittee provide notification of anticipated blasting and painting operations in accordance with Facility-wide Condition FW20.
[Rule 62-4.070(3), F.A.C.]

A.24. 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:

(1) All documentation supporting initial notification;
(2) A copy of the affected source's approved implementation plan;
(3) The volume of each low-usage-exempt coating applied;
(4) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
(5) Certification of the as-supplied VOC content of each batch of coating;
(6) A determination of whether containers meet the standards as described in Specific Condition A.8.(B); and
(7) The results of any Method 24 measurement test conducted on individual containers of coating, as applied.

[40 CFR 63.788(b)(2)]

A.25. The records required by Specific Condition A.24. shall include additional information, as determined by the compliance procedure(s) described in Specific Condition A.14. that each affected source followed:

(1) Coatings to which thinning solvent will not be added. The records maintained by facilities demonstrating compliance using the procedure described in Specific Condition A.14.(1) 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.

(2) 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 A.14.(2) 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 (nonvolatiles) 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.

(3) 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 A.14.(3) 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 of this permit 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.26. If the owner or operator of an affected source detects a violation of the standards specified in Specific Conditions A.7. and A.8., 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:

(1) 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.
(2) 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.
(3) 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.
(4) If, pursuant to paragraph (3) 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.

[40 CFR 63.788(b)(4)]

A.27. 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 Conditions A.24. and A.25., except for that information specified in A.24.(1), (2), (5) and A.25.(1)(i), (2)(i), (3)(i). If a violation at an affected source is detected, the source shall also report the information specified in paragraph A.26. 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)]

The following conditions apply to the NESHAP emissions unit listed above:

A.28. The permittee shall comply with 40 CFR Part 63, Subpart A - General Provisions (Appendix GP-1, General Provisions Applicability to Subpart II).
[Rule 62-204.800(10)(d), F.A.C.]

A.29. 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.]

A.30. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

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

Coating Category	VOHAP limits[a,b,c]		
	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
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 A.15.(1), but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in Specific Condition A.15.(2) and (3).

[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.

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

EU No.	Brief Description
002	Abrasive Grit Silos
003	Abrasive Grit Blasting Pots
004	Blasting Nozzles
005	Diesel Compressors

The grit blasting operation includes the internal and external blasting of marine vessels and associated parts. The abrasive material used for blasting is coal slag which is stored on-site in storage silos that are pneumatically loaded. The blasting equipment includes blasting pots and a maximum of 16 external blasting nozzles. Compressed air for propelling the abrasive grit is provided by diesel compressors. Steel shot/slag is also an approved blasting media.

Particulate matter emissions from the storage silo loading and the transfer of product to the blasting pots are minimized by venting the displaced air through a fabric filter. Dust suppressant(s) may also be utilized to help minimize particulate matter emissions and limit the emissions to 5% opacity or less, pursuant to Rule 1-3.52, Rules of the EPC. Compressor emissions are controlled by the use of diesel fuel only and a limitation on the amount of diesel fuel used in any 12 month period. Particulate emissions from blasting are minimized with a limit on the amount of abrasive grit used in any 12 month period, the use of tarps/barriers that surround the blasting area, and best management practices. The displaced air from blasting an internal section of a ship 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 small/miscellaneous parts blasting/coating containment area with stationary tarps on four sides and the top (complete enclosure) is also present at the main yard for control of emissions generated from the blasting or coating of miscellaneous metal parts. However, a significant portion of the metal parts should be processed in the blasting/coating booth (EU 102), which greatly minimizes particulate emissions from miscellaneous parts blasting and coating operations.

Essential Potential to Emit (PTE) Parameters

B.1. Hours of Operation. The equipment associated with these emission units may operate continuously (8,760 hours/year). [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Only diesel fuel, no used or waste oils, shall be burned in the diesel compressors.
[Rule 62-4.070(3), F.A.C.]

B.3. Permitted Capacity. The material usage rates/operational limitations shall not exceed the following:

Abrasive Grit(1)	38,450 tons/12-consecutive month period	
Blasting Nozzles(4), (5)	16 nozzles	
Diesel Fuel(2)	622,440 gallons/12-consecutive month period	0.05% by wt. Sulfur

(1) No more than 38,450 tons of abrasive grit shall be used in any 12-consecutive month period.
(2) No more than 622,440 gallons diesel fuel shall be used in any 12-consecutive month period. Sulfur content of the fuel shall not exceed 0.05 percent by weight.
(3) All abrasive grit stored in silos shall incorporate fabric filters on the silos to limit visible emissions to 5% opacity or less.
(4) No more than 16 external blasting nozzles shall be in use at any given time.

(5) Whenever possible, all miscellaneous parts to be blasted shall be placed within the blasting/coating booth (EU 102) during the blasting process.

[Rules 62-212.300(1)(d), 62-4.070(3), F.A.C., 1-3.52.2., Rules of the EPC, Air Construction Permit Nos. 0570286-017, 0570286-019, 0570286-020, and 0570286-026-AC]

{*Permitting Note: The number of external blasting nozzles is limited by the number of external blasting nozzles operating during the latest successful compliance demonstration (test) or Specific Condition B.3.(4), whichever is less. Internal blasting is limited by the number of internal blasting nozzles operating within a single ship during the latest compliance test, and must be tested separately from external blasting to determine compliance.*}

B.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

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

B.5. In order to limit the potential to emit, the maximum allowable PM emissions from the referenced sources shall not exceed the following during any twelve (12) consecutive month period:

Source	PM Emissions (tons/12 months)
Grit Blasting Operations (including diesel compressor emissions)	53.2

[Rule 62-210.200(PTE), F.A.C., Rule 62-4.070(3), F.A.C., and Air Construction Permit No. 0570286-026-AC]

B.6. Visible emissions from the grit blasting activities (including external and internal ship blasting and the diesel air compressors) shall not be equal to or greater than 20% opacity. Visible emissions from the grit silos and blasting pots shall not exceed 5% opacity.
[Rule 62-296.320(4)(b)1., F.A.C. and Rule 1-3.52.2., Rules of the EPC]

B.7. The permittee shall not cause, permit, or allow visible emissions greater than 5 percent opacity from any enclosed structures performing manufacturing operations or any other methods of processing which emit particulate matter. This includes enclosed new ship or enclosed ship module manufacturing process operations. The Erection Facility is not an enclosed building and therefore shall not be restricted to the 5 percent opacity standard. [Rules 62-296.712, 62-4.070(3), F.A.C. and Air Construction Permit No. 0570286-021-AC]

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.8. Test Method. 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 method is 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 in accordance with Rule 62-297.620, F.A.C.

Periodic Monitoring. To assure compliance with Specific Condition B.6., the permittee shall conduct 12-minute visible emission (VE) observations using EPA Method 9 as follows:

Activity/Unit	Frequency	Condition
Blasting	Once per day[1,2]	At point of maximum opacity leaving the dry dock/tarp enclosure
Grit Silos	One silo, per day[2,3]	Silo with highest visible emissions during grit loading
Diesel Compressors	One compressor, per day[2,4]	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.
[2] - Any observed malfunctions from the silos, blasting pots, diesel compressors, or blasting activities shall initiate immediate corrective action to maintain visible emissions below 20% opacity for the diesel compressors and blasting activities, and 5% opacity for the silos and blasting pots. This includes contracted silos brought in for specific blasting activities.
[3] - If multiple silos are being loaded on the same day, the 12-minute VE observation should be performed on the silo with the highest visible emission observed during an assessment of all silos being loaded.
[4] - 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 and hydroblasting will be noted on the record with the relative times in operation.

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:

(1) Inspection of each active blasting area to ensure it meets the criteria of using tarps/barriers and complete enclosure when blasting the deck or superstructure.
(2) Inspection of all blasting equipment being used (tarp areas, silos, blasting pots, and diesel compressors) for any obvious opacity related problems.
(3) An inspection log will be completed with notes on all corrective actions performed.

Any required testing 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 B.14. [Rules 62-4.070(3), 62-213.440(b)1.b., 62-297.401, 62-297.440, F.A.C. and Permit No. 0570286-028-AV]

B.9. When internal blasting is being performed with displaced air being vented to a portable control device, a visible emissions check shall be performed during the blasting operation. 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. If any emissions over 20% opacity are observed, the permittee shall initiate immediate corrective action to eliminate excessive visible emissions. 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. Records of the VE checks, VE observations, formal VE tests, nighttime internal blasting and any maintenance performed shall be maintained in conjunction with Specific Conditions B.8 and B.16. [Rule 62-4.070(3), F.A.C.]
B.10. Compliance with Specific Condition B.6. 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. Specific observations shall be conducted during the dry

blasting of the exterior of a marine vessel. All EPA Method 9 compliance testing observation periods shall be at least thirty (30) minutes in duration, unless specifically stated otherwise in another condition within Subsection B of this permit. The observation point for the 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 62-4.070(3), 62-296.320(4)(b)4., and 62-297.310(4)(a)2., F.A.C.]

B.11. Compliance testing 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 (90% rated capacity is represented by fifteen nozzles). If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Internal blasting operations are not specifically limited to sixteen blasting nozzles; however, internal blasting is limited to the number of internal blasting nozzles operating within a single ship during the latest compliance test. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Environmental Protection Commission of Hillsborough County. 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.

The silo loading and compressor emissions testing should be performed with each operating at the maximum typical loading rates. The silo loading pressure must be between a minimum of 11 psi and a maximum of 15 psi to ensure typical loading rates. 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.]

{Permitting Note: The number of blasting nozzles used during the annual compliance testing will establish the maximum number of nozzles allowed, plus 10%, per ship, up to a maximum of 16 facility-wide. As an example, if the facility tests a ship with 12 nozzles, then the maximum number of nozzles that can be used on any single ship is 13 nozzles (110% of the original 12). The facility would be able to use any combination of nozzles on any number of ships, as long as no more than 13 nozzles are used on any single ship, and no more than 16 nozzles can be in operation across the facility at any one time. Additional testing with 15 nozzles could be done to achieve the maximum 16 nozzles for a single ship, if necessary, with prior notice to EPC}.

B.12. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the permittee shall have a formal compliance test conducted to demonstrate compliance with Specific Condition B.6. 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 federal fiscal year, a test is not required for that affected source; however, Tampa Ship shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County in writing if one or more of the testing points did not operate during the previous federal fiscal year. Two copies of any visible emissions compliance testing shall be submitted to the Air Management Division of the EPC within 45 days of such testing. Testing procedures shall be consistent with the requirements of Rule 62-297.310, F.A.C.
[Rules 62-4.070(3), 62-4.160(8), and 62-297.310(7)(a)4., F.A.C.]

B.13. The permittee shall notify the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted.
[Rule 62-297.310(7)(a)9., F.A.C.]

B.14. 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.15. The permittee shall maintain monthly records of the type and amount of abrasive blasting material and diesel fuel used in order to demonstrate compliance with Specific Condition B.3. A rolling 12 month total shall be kept as well. [Rule 62-4.070(3), F.A.C.]

B.16. The permittee shall maintain monthly records of the periodic monitoring results in order to demonstrate compliance with Specific Conditions B.6., B.8 and B.9. The records shall include documentation of all daily records when activities requiring monitoring were taking place.
[Rule 62-4.070(3), F.A.C.]

B.17. Records required by Specific Conditions B.15. and B.16. shall be maintained for a minimum of 5 years and the calendar year-ending 12-month totals from Specific Condition B.15 shall be included in the "Annual Operating Report for Air Pollutant Emitting Facility" (see Facility-Wide Specific Condition No. FW6).
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

B.18. If a stationary diesel compressor greater than 500 hp is added to the facility, the permittee shall determine the applicability of 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 63.6585]

B.19. In order to document continuing compliance with the sulfur content limitation specified in Specific Condition B.3., the permittee shall keep records on either vendor provided as-shipped analysis or on analysis of as-received samples taken at the plant. The analysis shall be determined by ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4294-90, adopted and incorporated by reference in Rule 62-297.440(1), F.A.C. The above records shall be maintained at the facility for a minimum of five (5) years and be made available to the EPC upon request. [62-4.070(3), F.A.C. and 62-210.300.(3)(c), F.A.C]

B.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Excess Emissions

B.21. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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 Department for longer duration. [Rule 62-210.700(1), F.A.C.]

B.22. Excess Emissions Allowed. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

B.23. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

The specific conditions in this section apply to the following emission unit:

EU No.	Brief Description
102	Blasting/Coating Booth

The blasting/coating booth is enclosed within a larger exterior building to help protect it from the elements. Miscellaneous metal parts are fabricated and prepared (steel shot blasted and coated) prior to being installed on a ship. Both blasting and coating take place in the same booth. Blasting and coating are controlled by separate control devices.

The blasting media for the new booth is steel shot that is recycled after blasting. Two (2) blasting nozzles are utilized to remove paint, rust, etc. from the metal pieces in preparation for coating. The used blast material is collected, sized and reclaimed. Particulate Matter emissions from the blasting process and the recycling of the steel shot are vented through a 38,000 acfm Donaldson/Torit Model ADFT 4-64 cartridge baghouse with a pulse jet cleaning mechanism located outside of the exterior building. The small/miscellaneous parts blasting/coating area will remain active, but it will only be used to process only those parts that cannot be accommodated in the blasting/coating booth.

The coating operation is controlled by two (2) 37,500 acfm exhaust fans that are used to vent VOC emissions from the building. Each fan is connected to an exhaust plenum that is covered with filters at the wall inlets to collect overspray. Each fan has its own exhaust point above the booth and exterior building that pulls the air from different sides of the booth. VOC emissions from the coatings are controlled through the use of low solvent coatings, application practices, and limitations on the usage of coatings.

<u>Coating Operation</u>

C.1. For any coating applied to a metal surface within the blasting/coating booth, the volatile organic compound (VOC) 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 and miscellaneous metal parts. All miscellaneous metal parts to be coated separate from the dry docks shall be contained within the blasting/coating booth or the existing small/miscellaneous parts blasting/coating containment area during the coating application process. [Rules 62-4.070(3) and 62-296.513(2)(a)2. & 3., F.A.C.]

[Permitting Note: Portions of a vessel which are removed for convenience and coated separately in the blasting/coating booth are subject to the maximum VOC content of 3.5 lb/gal as dictated in Specific Condition No. C.1. 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 is not required to meet the 3.5 pounds per gallon of coating, excluding water, delivered to the coating applicator VOC-RACT limit.]

C.2. Facility-wide coating usage is limited to 270,000 gallons for all coating operations, including the coatings applied in the blasting/coating booth, for any 12 consecutive month period. The facility-wide thinner and solvent usage, including the blasting/coating booth, is limited to 16,000 gallons for any 12-consecutive month period.
[Rule 62-212.300(1)(d), F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.3. The blasting/coating booth is limited to a maximum of 20,000 gallons of combined RACT coatings, thinners, and cleanup solvents for any 12 consecutive month period. Emissions from thinner and cleanup solvent usage is included in the usage limits for coatings; however, any emissions from thinners and cleanup solvents must be accounted for and included in total emissions calculations to ensure compliance with the 35 ton per year VOC limit from Specific Condition No. C.4. [Rule 62-212.300(1)(d), F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.4. The total volatile organic compound (VOC) emissions from the coating operation at the blasting/coating booth shall not exceed 35 tons per year for any 12-consecutive month period. The total hazardous air pollutant (HAP) emissions from the blasting/coating booth shall not exceed 28 tons per year for any 12-consecutive month period. Facility-wide VOC and HAP emissions from the coating operations shall not exceed 473 tons per year and 379 tons per year, respectively, for any 12-consecutive month period.
[Rules 62-4.070(3), 62-212.300(1)(d), F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.5. All VOC emissions from solvent washings shall be considered in the usage and emission limitations of coatings subject to Specific Condition Nos. C.2., C.3. and C.4. 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 – Subpart II Requirements

C.6. No owner or operator of any existing or new affected source shall cause or allow the application of any coating to a ship or miscellaneous metal part relating to ship fabrication or repair (including all coating operations in the new booth) with an as-applied VOHAP content exceeding the applicable limit given in Table 1 of Subsection A, as determined by the procedures described in Specific Condition No. C.13. For the compliance procedures described in Specific Condition No. C.13, 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) and Rule 62-4.070(3), F.A.C.]

C.7. Each owner or operator of a new or existing affected source shall ensure that:
(1) 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.
(2) 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.
[40 CFR 63.783(b)]

C.8. Specific Condition Nos. C.6. and C.7. 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 the 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)]

C.9. Specific Condition Nos. C.6. and C.7. do not apply to coatings applied with hand-held, nonrefillable, 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. C.6. and C.7. [40 CFR 63.781(c)]

C.10. For each batch of coating that is received, the owner or operator shall (see Appendix F-1 for a flow diagram of the compliance procedures):
(1) Determine the coating category and the applicable VOHAP limit as specified in Specific Condition Nos. C.6. and C.13.
(2) 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.
[40 CFR 63.785(a)]

C.11. 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. C.13. The procedure used for each coating shall be determined and documented prior to application. [40 CFR 63.785(b)]

C.12. 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. C.13. [40 CFR 63.785(b)]

C.13. Coating Compliance Methods:
(1) 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. C.6. (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 EPA Method 24.

(2) 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:

(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 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:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}}$$

Eqn. 2

where:

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

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

The procedures specified in Specific Condition No. 22 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:

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

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-old-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; and

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 EPA Method 24.

(3) 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.

[40 CFR 63.785(c)]

C.14. 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. C.13. 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)]

Test Methods and Procedures

Test Method. Required tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
24	Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings.

The above method is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.

C.15. Compliance with the emission limitation of Specific Condition No. C.1. 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 recordkeeping, as required in Specific Condition No. C.20. Instead of EPA 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. The minimum sampling 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 62-296.500(2)(b)4. and 62-296.513(4)(a), F.A.C.]

C.16. For the compliance procedures described in Specific Condition No. C.13., EPA Method 24 of 40 CFR Part 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)]

C.17. A coating manufacturer or the permittee may use batch formulation data as a test method in lieu of EPA 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 the EPA 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, EPA Method 24 shall take precedence. [40 CFR 63.786(c)]

C.18. The permittee shall use or ensure that the manufacturer uses the form and procedures mentioned in Appendix A of Subpart II to determine values for the thinner and coating parameters used in Equations 1 and 2. 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)]

Recordkeeping and Reporting Requirements

C.19. The EPA VOC DATA SHEET - Properties of the Coating "As Supplied" by the Manufacturer, 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. Tampa Ship, LLC 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.]

C.20. Compliance with the emission limitations of Specific Condition Nos. C 1, C.2., C.3. and C.4 shall be demonstrated by the following records which shall be maintained on a daily basis for the most recent five years of operation:
[Rules 62-213.440(1)(b)2., 62-296.500(2)(b), F.A.C. and Air Construction Permit No. 0570286-026-AC]

(1) The rule number applicable to the operation for which the records are being maintained and the date.
(2) The application method and the part applied to.
(3) The amount and type of coatings (including catalyst and reducer for multicomponent coatings) and solvent used at each point of application, including exempt compounds in gallons.
(4) The VOC and HAP content as applied in each coating and solvent.
(5) The amount of surface preparation, clean-up, and wash-up of solvent (including exempt compounds) used, and the VOC and HAP content of each.
(6) Whether any solvent washings were directed to a container that prevented evaporation into the atmosphere.

C.21. In order to demonstrate compliance with Specific Condition Nos. C 1, C.2., C.3. and C.4., the permittee shall maintain monthly records and twelve consecutive month totals for the blasting/coating booth on coating (RACT) usage (including thinner and cleanup solvent usage), volatile organic compound usage, volatile organic

compound emissions, individual HAP emissions, and total HAP emissions. All cleanup solvents used must be individually tracked and included in the emission totals. The records shall be maintained for a minimum of 5 years.
[Rules 62-070(3), 62-213.440(1)(b)2., F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.22. The permittee shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:
(1) All documentation supporting initial notification;
(2) A copy of the affected source's approved implementation plan;
(3) The volume of each low-usage-exempt coating applied;
(4) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
(5) Certification of the as-supplied VOC content of each batch of coating;
(6) A determination of whether containers meet the standards as described in Specific Condition No. C.7.(2); and
(7) The results of any EPA Method 24 measurement test conducted on individual containers of coating, as applied.
[40 CFR 63.788(b)(2)]

C.23. The records required by Specific Condition No. C.22 shall include additional information, as determined by the compliance procedure(s) described in Specific Condition No. C.13. that each affected source followed:

(1) Coatings to which thinning solvent will not be added. The records maintained by facilities demonstrating compliance using the procedure described in Specific Condition No. C.13.(1) 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.

(2) 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. C.13.(2) 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 (nonvolatiles) 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.

(3) 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 C.13.(3) 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 of this permit 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)]

C.24. If the owner or operator detects a violation of the standards specified in Specific Conditions Nos. C.6. and C.7., 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:

(1) 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.
(2) 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.
(3) 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.
(4) If, pursuant to paragraph (3) 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.

[40 CFR 63.788(b)(4)]

C.25. Before the 60th day following completion of each 6-month period, the permittee shall submit a report to the Environmental Protection Commission of Hillsborough County for the previous 6 months. The report shall include all of the information that must be retained pursuant to Specific Condition Nos. C.22. and C.23., except for that information specified in Specific Condition No. C.22.(1), (2), (5) and C.23.(1)(i), (2)(i), 3(i). If a violation is detected, the permittee shall also report the information specified in Specific Condition No. C.24 of this permit 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)]

C.26. The permittee shall comply with 40 CFR Part 63, Subpart A - General Provisions (Appendix GP-1, General Provisions Applicability to Subpart II). [Rule 62-204.800(10)(d), F.A.C.]

C.27. The permittee shall not store, handle, process, or use in any process the volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems as follows and as deemed necessary and ordered by the Department:
[Rules 62-4.070(3) and 62-296.320, F.A.C.]

i. Maintain covers, lids, etc. on all containers when they are not being handled, tapped, etc.
ii. Where possible and practical, procure/fabricate a tightly fitting cover for any open trough, basin etc. of VOC so that it can be covered when not in use.
iii. Attend to all spills/waste as soon as practical but no later than one hour after the event.
iv. Using only air assisted spray applicators, airless spray applicators, brushes and rollers inside the blasting/coating booth (EU102) unless a request for use of another technology is submitted in writing and approved by the Environmental Protection Commission of Hillsborough County.
v. Using high solids coatings whenever they are available and whenever they meet customer specifications.
vi. All miscellaneous metal parts to be coated separate from the dry dock shall be placed within the blasting/coating booth (EU102). The small/miscellaneous parts blasting/coating area will remains active, but is restricted to process only those parts that cannot be accommodated in the blasting/coating booth.
vii. The exhaust system for the coating operation shall be in operation at all times during active coating of parts in the booth.
viii. Filters shall be maintained in good condition and utilized as designed on the exhaust vent inlets during any coating operations occurring within the booth.
ix. All exterior doors on the booth shall be closed during any active coating application.
x. A weekly inspection of the coating control system shall be conducted and recorded to ensure that the system is operating as designed.

Blasting Operation

C.28. In order to ensure compliance with the emission limitations in Specific Condition Nos. C.29., C.30., and C.31. the following restrictions shall apply:
[Rule 62-4.070(3), F.A.C. and Air Construction Permit No. 0570286-026-AC]

a. Only steel shot can be used for blasting materials within the booth. The steel shot can be recycled for reuse, as long as it is processed through the designed separator installed with the booth and the baghouse is in operation during blasting and recycling operations.
b. No more than 51,509 tons of steel shot shall be used in the booth in any 12-consecutive month period.
c. No more than 38,450 tons of abrasive grit, excluding the steel shot used in the booth, shall be used facility-wide in any 12-consecutive month period.
d. All dust laden air which is displaced in the hopper loading and recycling process (separator) shall be processed through the baghouse before being discharged to the atmosphere.
e. No more than 2 blasting nozzles shall be in use at any given time.

[Permitting Note: The steel shot usage limits for the blasting/coating booth are considered separate from the facility-wide abrasive grit usage limit.]

C.29. As requested by the permittee, in order to limit the potential to emit and to exempt the facility from Rule 62-212.400, F.A.C., the maximum allowable particulate matter (PM) emissions from the steel shot blasting within the blasting/coating booth shall not exceed 13.8 tons per year for any 12-consecutive month period.
[Rule 62-4.070(3), F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.30. The maximum facility-wide allowable particulate matter emissions from all blasting operations shall not exceed 67.0 tons (including interior/exterior ship abrasive grit blasting, abrasive grit silo and pot loading, metal parts abrasive grit blasting in the small/miscellaneous parts blasting/coating area, metal parts steel shot blasting in the blasting/coating booth, and diesel compressor emissions) for any 12-consecutive month period.
[Rule 62-4.070(3), F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.31. The permittee shall not cause, permit, or allow emissions of particulate matter in excess of 0.01 gr/dscf from the baghouse that controls the blasting operation in the blasting/coating booth.
[Rule 62-296.712(2), F.A.C. and Air Construction Permit No. 0570286-026-AC]

[Permit Note: The permittee elected to take a standard more stringent than the 0.03 gr/dscf required by PM-RACT.]

C.32. The permittee shall not cause, permit, or allow visible emissions greater than 5 percent opacity from the building, which encloses the blasting/coating booth, or the exhaust from the baghouse controlling the blasting/coating booth. [Rule 62-296.712(2), 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.}

Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Determination of traverse points, stack gas flow rate, molecular weight, and moisture content
5	Determination of particulate matter emissions from stationary sources
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 in accordance with Rule 62-297.620, F.A.C.

C.33. The permittee shall test the visible emissions annually from the baghouse exhaust and the building housing the blasting/coating booth between October 1 and September 30 (once per federal fiscal year) with a target date of March 8th of each year. Particulate matter testing shall be conducted prior to permit renewal.
[Rules 62-4.070(3), 62-297.310(7)(a)3. and 4., F.A.C. and Air Construction Permit No. 0570286-026-AC]

C.34. The permittee shall submit two copies of the test data to the Air Management Division of the Environmental Protection Commission of Hillsborough County within forty-five days of completing testing. The visible emissions tests shall include testing at the point of highest observed opacity. Testing procedures shall be consistent with the requirements of Rule 62-297, F.A.C.
[Rules 62-4.070(3) and 62-297.310(7)(a)4., F.A.C.]

C.35. Compliance with the emission limitations of Specific Condition Nos. C.31. and C.32. shall be determined using EPA Methods 1, 2, 3, 4, 5 and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. All EPA Method 9 observation periods shall be at least thirty (30) minutes in duration and conducted concurrently with any required particulate matter test. 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 62-4.070(3) and 62-296.320(4)(b)4., F.A.C.]

C.36. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rule 62-297.310(7)(a)9., F.A.C.]

C.37. Compliance testing shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of rated capacity, meaning the uninterrupted operation of two steel shot blasting nozzles and the recycling (steel shot separator) operation in progress, if practical. If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Testing with only one blasting nozzle does not allow for operation with two nozzles until additional testing, which demonstrates compliance, to regain capacity is completed. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Environmental Protection Commission of Hillsborough County. 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, may invalidate the test.
[Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

C.38. The permittee shall operate and maintain a measuring device to determine the air pressure differential across the baghouse and the pulse air manifold pressure within 10 percent accuracy. [Rule 62-4.070(3), F.A.C.]

C.39. The following reasonable precautions shall be taken to control the emissions of unconfined particulate matter associated with the abrasive blasting and to ensure compliance with Specific Condition Nos. C.28. through C.32: [Rules 62-4.070(3) and 62-296.320, F.A.C.]

A) The permittee shall only use steel shot for blasting materials within the booth unless prior approval is received from the Environmental Protection Commission of Hillsborough County to use another material.
B) The permittee shall require all blasting operators to be trained on procedures which minimize airborne emissions of blasting materials and instruct on the designed operation of the blasting booth and its control system. Records of training (when it was offered and who attended) will be maintained and be made available for inspectors of the Environmental Protection Commission of Hillsborough County upon request.
C) All miscellaneous metal parts to be blasted separate from the exterior graving docks shall be placed within the blasting/coating booth (EU102). The small/miscellaneous parts blasting/coating area remains active, but is restricted to process only those parts that cannot be accommodated in the blasting/coating booth and shall use complete enclosure to minimize particulate matter emissions.
D) The exhaust system for the blasting operation shall be in operation at all times during active blasting of parts in the booth and during the steel shot recycling operation.
E) All exterior doors on the booth shall be closed during any active blasting operation.
F) A daily instantaneous visible emission check of the building and baghouse exhaust stack shall be conducted and recorded during active blasting operations on any date that blasting occurs in the booth. 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.

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:

(1) Inspection of the active blasting area to ensure it meets the criteria of complete enclosure when blasting (including exterior door closure) and to confirm designed operation of the baghouse to capture and control emissions.
(2) Inspection of all blasting equipment being used (blast nozzles, steel shot recycling system, blasting pot(s), electric compressors, booth enclosure, etc.) for any obvious opacity related problems.
(3) An inspection log will be completed with notes on all corrective actions performed.

G) A weekly inspection of the blasting control system shall be conducted and recorded to ensure that the system is operating as designed.

Recordkeeping and Reporting Requirements

C.40. The permittee shall maintain monthly records on the amount of steel shot used in order to demonstrate compliance with Specific Condition Nos. C.28. and C.29. A rolling 12-month total shall be kept as well.
[Rule 62-4.070(3), F.A.C.]

C.41. **Other Testing Requirements.** Unless otherwise specified in this subsection, testing should be completed in accordance with Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

C.42. **Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Excess Emissions

C.43. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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 Department for longer duration. [Rule 62-210.700(1), F.A.C.]

C.44. Excess Emissions Allowed. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

C.45. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

REFERENCED ATTACHMENTS

The Following Attachments Are Included for Applicant Convenience

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix RR, Facility-wide Reporting Requirements.
Appendix SS-1, Stack Sampling Facilities
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix GP-1, 40 CFR 63 Subpart A – NESHAP General Provisions
Appendix D-1, 40 CFR Subpart II Definitions
Appendix F-1 and F-2, Flow diagram of compliance procedures
Appendix A-1, VOC Data Sheet
Appendix O&M Plan
Appendix CP-1, Compliance Plan
Appendix Tampa Ship BMP

Other Attachments
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.
Table 1, Summary of Air Pollutant Standards and Terms.
Table 2, Compliance Requirements.