FINAL Title V Air Operation Permit Renewal
Permit No. 0570286-031-AV

APPLICANT

The applicant for this project is Tampa Ship, LLC. The applicant's responsible official and mailing address are: Johnie Robertson, Manager of Environmental Affairs, Tampa Ship, LLC, 1130 McClosky Blvd., Tampa, Florida 33605.

FACILITY DESCRIPTION

The applicant operates a shipbuilding and ship repair facility which is located in Hillsborough County at 1130 McClosky Blvd., Tampa, Florida.

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 surround 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 surround 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.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities, which are described in Appendix I.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit No. 0570286-025-AV issued August 23, 2006
Application for a Title V Air Operation Permit Renewal received January 7, 2011

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does not operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the emission units, since the Operation and Maintenance Plan for Particulate Control for EU 102 is more stringent than and fulfills the requirements of CAM.

PROJECT REVIEW

The renewal permit updated several portions of the permit summarized as follows:

1) The permit was reformatted using latest version of the preferred Title V permit format. Appendix TV-5 was replaced with new Appendix TV, and Appendices RR and TR were added to document reporting and testing requirements. The Tampa Ship Shipyard BMP was also updated to correct outdated language.
2) The annual operating report due date was changed to April 1st in accordance with state rule changes since the last Title V renewal.
3) The Title V renewal application due date was changed to 225 days prior to expiration in accordance with state rule changes since the last Title V renewal.
4) The Process Description was updated to more accurately reflect the current facility operations. Also, the PM PTE was revised in the permit to account for 25.4 tons per year of PM PTE from paint overspray and a reduction of PM emissions due to the utilization of 95% shade factor tarps (90% control efficiency) for blasting and painting activities. The revised facility-wide PM PTE of 92.4 tons per year has been included in the permit renewal. As a result, the minimum observation period for the annual visible emission tests on the grit blasting operations (nozzles) has been changed from 60 minutes to 30 minutes since the potential-to-emit for the emission unit is less than 100 tons per year of particulate matter.
5) The opacity standard for the grit silos and blasting pots was corrected to 5% opacity pursuant to Rule 1-3.52, Rules of the EPC.
6) Outdated language with respect to requiring the upgrade of the tarps to 95% shade factor was removed from the permit, as the facility currently uses 95% shade factor tarps.
7) A compliance plan, Appendix CP-1, is being included with the permit to address certain outstanding compliance issues with regard to the abrasive silos and new blasting and coating booths located in the panel line building.

COMMENTS

The Intent to Issue, Notice of Intent to Issue, and DRAFT Title V Permit Renewal were issued on April 7, 2011. Written comments were received from the applicant on May 5, 2011 regarding the DRAFT permit. The comments were addressed through the issuance of the REVISED DRAFT permit on June 27, 2011. The Notice of Intent to Issue for the REVISED DRAFT permit was published on August 10, 2011 in The Tampa Tribune, and no comments were received from the general public since the Notice of Intent was published. The PROPOSED Title V permit was issued on September 9, 2011. No comments were received from the US EPA on the PROPOSED permit.

CONCLUSION

This project renews Title V air operation permit No. 0570286-028-AV, which was issued on January 22, 2008. This FINAL Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.