



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Washburn & Doughty Associates, Inc. )
Lincoln County )
East Boothbay, Maine )
A-1050-71-B-M )
Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

Introduction

Washburn & Doughty Associates, Inc. (W&D) of East Boothbay, Maine has applied for a minor revision to its Air Emission License, A-1050-71-A-N, permitting the operation of emission sources associated with their steel and aluminum commercial marine vessels manufacturing site.

II. REVISION DESCRIPTION

W&D was issued Air Emissions License A-1050-71-A-N on June 20, 2011. The facility has requested a minor revision to:

- Address a newly acquired plasma arc cutting system to the current air license;
Clarify the VOC and HAP calculations (per Conditions (19) and (20) of Air Emissions License A-1050-71-A-N) associated with the operations at W&D;
Provide newly acquired spray gun information related to process rates and "date of installation" described in the original air license;
Update the Finding of Fact section (page 8) of W&D's air license concerning the facility's potential to emit calculation/determination which in-turn affects the applicability of 40 CFR Part 63 Subpart II, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair Operations.

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Plasma Arc Cutting system

Washburn & Doughty recently acquired a plasma arc cutting system for use at the shipyard. This cutting system utilizes a water table for temperature and emissions control during cutting. The plasma arc cutting system is used inside the main manufacturing building and the limited emissions created by the cutting system are not directly emitted to the outside atmosphere. Based on 06-096 CMR 115 Appendix B Section (A) number 58 categorical exemption, it is determined that the equipment is an insignificant source at the shipyard and mentioned only for inventory purposes.

VOC and HAP calculation method

W&D has requested changes to Specific Conditions (19) and (20) to reflect how the monthly VOC and HAP emissions are currently being calculated. W&D has submitted a slight change in the material balance calculation method, specifically to account for product inventories. The Department accepts the calculation method and it will replace the current VOC and HAP calculation method specified in existing Conditions (19) and (20).

Spray Gun Information.

The original March 2011 application identified three airless Graco XTR-7 sprayers; with operating pressures as follows: Sprayer #1 - 7,000 psi, Sprayer #2 - 5,600 psi, and Sprayer #3 - 4,500 psi. The facility has recently discovered that Sprayer #3 is rated at 5,600 psi. In addition, the application and subsequent air license incorrectly identified that Sprayer #2 and Sprayer #3 were installed in 2008 after the July 2008 fire, however these Sprayers were on the barge during the fire and survived. The purchase and manufacture dates for these sprayers are not available.

Potential to Emit Hazardous Air Pollutants and Status of Facility as a Natural Minor  
VOC and HAP Source

Upon further review of the facility and the initial determination, and in light of additional information provided by W&D, the Department's potential to emit (PTE) estimate for the facility did not adequately account for the facility's maximum capacity under its physical and operational design, certain aspects of which were not fully considered during the initial licensing. EPA has issued various guidances which have identified several instances where inherent design limitations on PTE should be recognized. Currently page (8) of the W&D air emission license states "W&D has the potential to emit VOC and HAPs above the major source threshold." This statement was derived from an unrealistic worst-case scenario and was overly conservative, with emissions from the spray guns operating 8760 hours per year without consideration of

the facility's physical and operational design and is being removed from the air license. W&D has now provided the Department with more detail about the maximum capacity to manufacture boats at the facility, the amount of painting or coating that could be applied to the boats and, as a result, the facility's PTE.

After review of this information, the Department has determined that W&D is a "natural minor" source since it does not have the physical or operational capacity to emit major amounts of HAP or VOC emissions.

Air Licensing Exemption.

06-096 CMR Chapter 115 Section C(2)(d) exempts the following from the Department's air licensing requirements in Chapter 115;

*"A Minor Source whose facility-wide emissions are generated solely from any one or combination of the following:*

*(d)Total facility general process sources whose emissions without consideration of air pollution control apparatus and under normal operation are less than 100 lb/day or 10 lb/hr of any regulated pollutant..."*

As discussed above, based on additional review and supplemental information provided by W&D, the Department has determined W&D to be a natural minor source, instead of a synthetic minor source as concluded in the original licensing. In addition, W&D has provided information to the Department that demonstrates emissions of VOCs from its painting and coating operations are less than 100 lb/day under normal operation. In fact, the information provided by W&D demonstrates that for Hull 101 constructed in 2011, VOC emissions were less than 100 lbs/day over 99% of the days. A facility is exempt under 06-096 CMR 115 Section C(2)(d) if its actual emissions from general processes under normal operation are less than 10 lbs/hour or 100 lbs/day. W&D has demonstrated that its VOC emissions are less than 100 lbs/day under normal operation and therefore, the Department has determined that W&D is exempt from the air licensing requirements of 06-096 CMR 115. However, to maintain maximum operational flexibility and ensure clarity of the air requirements applicable to the facility going forward, W&D has chosen to retain its existing air license and is not seeking to have its air license withdrawn or surrendered.

**III. APPLICATION CLASSIFICATION**

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

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**ORDER**

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

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

The Department hereby grants Air Emission License Minor Revision, A-1050-71-B-M, subject to the following conditions:

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

**(1) The following condition shall replace Condition (19) of Air Emission License, A-1050-71-A-N:**

(19) To ensure compliance with BACT for VOC and HAPS, W&D shall record the quantity of coatings, paints, adhesives, and solvents used at the facility and also the VOC and HAP content of each, and any other applicable information for each of the following:

- Monthly Facility Product Inventories
- Monthly Facility Purchases
- Quantity shipped offsite

[06-096 CMR 115, BACT]

**(2) The following condition shall replace Condition (20) of Air Emission License, A-1050-71-A-N:**

(20) The mass balance equation shall be defined as follows to determine monthly VOC emissions for the applicable boat manufacturing (utilizing the data collected from Condition (19) and any other applicable data):

- Beginning Monthly Facility Inventory
- Monthly Facility Purchases

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- Quantity Shipped Offsite
- Next Monthly Facility Inventory

Monthly Product Usage = (A + B) - (C + D)

Monthly VOC Emissions = (Product Usage x VOC Content)

[06-096 CMR 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 17<sup>th</sup> DAY OF January, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie L. [Signature]  
PATRICIA W. AHO, COMMISSIONER

**The term of this minor revision shall be concurrent with the term of Air Emission License  
A-1050-71-A-N**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 24, 2011

Date of application acceptance: September 8, 2011

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality

