

Metal Works, Inc.]	VOC RACT ORDER
24 Industrial Drive]	Final December 22, 2004
Londonderry, NH 03053]	ARD-05-001
]	Amendment August 16, 2018
]	

A. Introduction

This VOC RACT Order is issued by the New Hampshire Department of Environmental Services, Air Resources Division, to Metal Works, Inc. pursuant to RSA 125-C.

B. Parties

1. The New Hampshire Department of Environmental Services, Air Resources Division (NHDES), is a duly constituted administrative agency of the State of New Hampshire having its principal offices at 29 Hazen Drive, Concord, NH 03301, telephone number (603) 271-1370.
2. Metal Works, Inc. (Metal Works) is a New Hampshire-based corporation doing business in New Hampshire at the mailing address of 24 Industrial Drive, Londonderry, NH 03053, telephone number (603) 669-6180.

C. Statements of Fact and Law

1. Metal Works owns and operates a facility located at 20 Industrial Drive in Londonderry, NH primarily engaged in the fabrication of sheet metal. Operations at the facility include paint spraying of the metal sheets in one of four spray booths.
2. Effective August 19, 1995, NHDES re-adopted the New Hampshire Code of Administrative Rules Env-A 1204, *Stationary Sources of Volatile Organic Compounds (VOCs)* with amendments. This part defines the sources that are subject to Reasonably Available Control Technology (RACT) requirements and specifies the RACT requirements.¹
3. Metal Works is subject to Env-A 1212.01, *Applicability Criteria and Compliance Standards for Coating of Miscellaneous Metal and Plastic Parts and Products*, (formerly Env-A 1204.15) because the combined actual emissions of non-exempt VOCs during any consecutive 12-month period exceed 3 tons.
4. On March 18, 2003, NHDES conducted a compliance inspection and noted that coatings used by Metal Works were in compliance with Env-A 1204.15.
5. Metal Works filed an application for a State Permit to Operate on September 30, 2003. The coatings listed in the application were different than coatings in use at the time of the March 18, 2003 compliance inspection.
6. Metal Works filed supplemental information for their application for a State Permit to Operate on January 5, 2004. In this submittal Metal Works calculated the VOC content of their coatings as applied and found that one coating exceeds the emission limit in Env-A

¹ Effective June 1, 2011, NHDES adopted Part Env-A 1200 *Volatile Organic Compounds (VOCs) Reasonably Available Control Technology (RACT)* with amendments which replaced Part Env-A 1204.

1204.15. Metal Works proposed, in the same submittal, the use of emission credits for compliance with RACT.

7. On June 13, 2018, Metal Works submitted a request to revise RACT Order ARD-05-001 to reflect updates to Env-A 1212 that became effective on January 1, 2016. The submittal also included a request to allow Metal Works to purchase and use additional, approved discrete emissions reductions in addition to the credits purchased in 2004.

D. Order

Based on the statements of fact and law, NHDES hereby orders Metal Works, effective upon issuance of this Order, to comply with the following requirements as RACT:

1. Miscellaneous Metal and Plastic Parts and Products Coating under Env-A 1212:

- a. For those processes applying coating onto metal parts and products, Metal Works shall comply with the emission limits as specified for the applicable coating categories listed in Table 1212-1 of Env-A 1212.04. All limits are in units of pounds of VOC per gallon of coating, as applied, excluding water and exempt compounds. Emissions in excess of these limits shall be offset by the use of DERs in accordance with Part E below.
- b. If more than one emission limit in D.1.a applies to a specific coating, then the least stringent emission limitation shall be applied.

2. Calculation of Emission Standard On a Solids Basis

For determining the amount of DERs to be used in accordance with Part E below, the emission rate limit shall be determined on a solids basis, as specified below:

- (i) "S" means the VOC emission standard in terms of pounds VOC per gallon of coating solids;
- (ii) "E_c" means the VOC emission limit as stated in Part D.1, above; and
- (iii) "d_A" means the actual mass density of the VOC in the applied surface coating formulation in terms of lb VOC/gal VOC; and
- (iv) S shall be equal to E_c divided by the difference between one and the quotient of E_c and d_A, as in the following equation:

$$S = \frac{E_c}{[1 - E_c / d_A]}$$

3. Calculation of Allowable VOC Emissions per Coating per Month

The allowable VOC emissions shall be calculated for each coating as follows:

- (i) "E_a" means the allowable VOC emission rate of a given coating in units of lbs/month or kg/month;
- (i) "S" means the VOC emission standard in terms of lb VOC/gal or kg VOC/l of coating solids, as calculated in Part D.2, above;
- (ii) "W" means the weight of coating or dilution solvent used in the coating line in a given month in units of lbs/month or kg/month;

- (iii) "D" means the density of the coating or dilution solvent in units of lbs/gal coating, or kg/l coating as determined from Method 24 or 24A analysis;
- (iv) "VS" means the volume fraction solids content of the coating, in units of gal solids/gal coating or l solids/l coating as determined by calculation using the formulation; and
- (v) " E_{al} " shall be equal to the product of S, VS and W divided by D for each coating or dilution solvent used, as in the following equation:

$$E_{al} = S * VS * (W/D)$$

4. Calculation of Actual VOC Emissions per Coating per Day

The VOC emissions shall be calculated for each coating as follows:

- (i) " E_{ac} " means the actual VOC emission rate of a given coating in units of lbs/month;
- (ii) "W" means the weight of coating or dilution solvent used in the coating line in a given month in units of lbs/month;
- (iii) "WV" means the weight fraction of VOC content of the coating, in units of lbs VOC/lb coating as determined by calculation using the formulation; and
- (iv) " E_{ac} " shall be equal to the product of W and WV, as in the following equation:

$$E_{ac} = W * WV$$

5. Calculation of Excess Emissions per Coating

The amount of VOC emissions emitted in excess of the applicable limit for each coating (E) shall be equal to the difference between the actual VOC emissions Rate (E_{ac}) and the allowable VOC emission rate (E_{al}), as in the following equation:

$$E = E_{ac} - E_{al}$$

If the calculated excess emission rate is a negative number, no additional calculation is required.

If the calculated excess emission rate is a positive number, the excess emission rate shall be divided by an environmental benefit factor of 0.9.

6. Recordkeeping and Reporting Requirements

Metal Works shall maintain the following records in order to demonstrate compliance with this Order. Each record shall be kept for a period of at least five years.

- a. All coatings used at the facility after the issuance of this RACT order shall be either tested using Methods below or the facility will retain sufficient records for prima facie evidence in support of demonstrating compliance with the VOC RACT limit.
 - (i) Method 24, 40 CFR Part 60, Appendix A at 1-hour bake time, or an alternative test method approved by the Director and EPA; or
 - (ii) Method 24A, 40 CFR Part 60, Appendix A, or an alternative test method approved by the Director and EPA.

(iii) Prima facie evidence shall include all of the information required by the VOC data sheet found on either page II-2 or III-2, as applicable, of EPA document EPA-450/3-84-019, *Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings*, dated 1984.

If there is a discrepancy between the formulation data and the results of the Method 24 or 24A analysis, compliance shall be based on the results from the Method 24 or 24A analysis.

- b. Maintain records in accordance with Env-A 904, *VOC Emission Statements Recordkeeping Requirements*, and submit reports in accordance with Env-A 908, *VOC Emission Statements Reporting Requirements*.

7. Work Practice Standards for Miscellaneous Metal and Plastic Parts and Products Coating

Metal Works shall control VOC emissions from VOC-containing coatings, thinners, coating-related waste materials and cleaning materials by complying with the requirements in Env-A 1212.03

E. Emissions Reductions Credits

1. Metal Works shall be allowed to use discrete emissions reductions (DERs) for the purpose of satisfying the requirements of this Order by acquiring DERs from Public Service of New Hampshire, as generated in accordance with the federally enforceable RACT Order No. ARD-98-001, approved as part of the State Implementation Plan in the Federal Register Volume 65, page number 220 dated November 14, 2000, or other emission trading credits approved for use in New Hampshire
2. Within 90 days of issuance of this RACT Order (ARD-05-001) by NHDES, Metal Works shall acquire, or demonstrate that it already possesses, 2 ozone-season DERs for compliance with the requirements in Part D, for the calendar years 2003 and 2004.
3. Annually by November 30, Metal Works shall submit a report to NHDES on the projected use of credits for the upcoming year. This report shall meet the requirements of Env-A 3104.08, *Notice of Intent to Use DERs*, including the following information:
 - a. The name and location of the user;
 - b. A copy of the Notice and Certification of Generation submitted by the generator source to the State (for paperwork reduction purposes, a certified statement that the notice is on file with NHDES will suffice);
 - c. The protocol used to document the amount of DERs needed to demonstrate compliance; and
 - d. Information that will allow NHDES to determine that Metal Works is in compliance with Env-A 1400, *Regulated Toxic Air Pollutants*.
4. Annually by April 15, Metal Works shall submit a report to NHDES on the balance of credits for the previous calendar year. This report shall meet the requirements of Env-A 3104.09, *Notice and Certification of Use*, including the following information:
 - a. The name and location of the owner or operator of the user source;
 - b. The cost of the DERs;

- c. The amount of DERs used and the associated serial numbers assigned by the NHDES;
- d. A calculation of the amount of DERs required to demonstrate compliance with the emission limits stated in Part D, above. DERs shall be calculated on an annual basis by summing the monthly excess emissions as calculated in Part D.5, above.
- e. A statement that due diligence was made to verify that the DERs were not previously used, and not **generated as a** result of actions prohibited under the regulations or other provisions of law;
- f. A statement that the DERs were not used in a manner prohibited under the regulation or other provisions of law; and
- g. A copy of the relevant Notice and Certification of Generation (for paperwork reduction purposes, a certified statement that the notice is on file with NHDES will suffice).
- h. The Notice of Certification of Use shall contain a certification by a responsible official of truth, accuracy and completeness and shall state that:
 - (i) Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete; and
 - (ii) The user source is in compliance with all National Ambient Air Quality Standards, except ground level ozone, and all Ambient Air Limits for Regulated Toxic Air Pollutants.

Please address any correspondence and communication in reference to this Order to the following:

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