

Watts Regulator Co.
583 South Main Street
Franklin, NH 03235

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] **FINAL RACT ORDER ISSUED**
] **March 21, 2007**
] **ARD07-001**
] **Amended April 20, 2007**
] **Amended August 21, 2015**
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A. Introduction

This RACT Order is issued by the New Hampshire Department of Environmental Services, Air Resources Division, to Watts Regulator Co., pursuant to RSA 125-C.

B. Parties

1. The New Hampshire Department of Environmental Services, Air Resources Division (DES), is a duly constituted administrative agency of the State of New Hampshire having its principal offices at 29 Hazen Drive, Concord, NH 03302, telephone number (603) 271-1370.
2. Watts Regulator Co. (Watts), formerly known as Webster Valve, Inc. (Webster Valve), is a New Hampshire corporation doing business at the mailing address of 583 South Main Street, Franklin, NH 03235, telephone number (603) 934-1327.

C. Statements of Fact and Law

1. Watts owns and operates a facility located at 583 South Main Street in Franklin, NH primarily engaged in the manufacturing of valves, regulators and backflow prevention devices for plumbing and heating and water quality applications. Operations at the facility include coating of the metal parts in one of six spray booths.
2. Watts submitted a VOC RACT compliance plan on October 26, 1994 stating that a regenerative thermal oxidizer (RTO) along with emissions averaging would be used to comply with the requirements of Env-A 1204.15.
3. On April 25, 2001, Watts submitted a modified VOC RACT compliance plan, proposing to discontinue the use of the RTO and use Discrete Emission Reductions (DERs) to comply with the requirements of Env-A 1204.15.
4. On May 21, 2001, Watts acquired 120 DERs (60 ozone season DERs and 60 non-ozone season 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 68078 dated November 14, 2000.
5. On May 24, 2001, DES approved Watts' modified VOC RACT compliance plan.
6. Effective December 31, 2002, DES 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.

7. Watts is subject to Env-A 1212.01, *Applicability and Exemptions for Coating of Miscellaneous Metal and Plastic Parts and Products*, because the combined actual emissions, before controls, during any consecutive 12-month period are 3 tons or more of non-exempt VOCs.
8. On June 23, 2006, Watts submitted an application to obtain a VOC RACT Order for the use of DERs for compliance.
9. Watts was issued RACT Order ARD07-001 on March 21, 2007. The RACT Order allows the use of discrete emission reductions (DERs) to comply with VOC Emission Limitations.
10. The coating operations, including the use of DERs, are currently covered under a State Permit to Operate.
11. Effective June 1, 2011, DES readopted Env-A 1200 (formerly Env-A 1204) with amendments.
12. On December 22, 2014, Watts submitted a request to revise RACT Order ARD07-001 to reflect updates to Env-A 1212 that become effective on January 1, 2016.

D. Order

Based on the statements of fact and law, DES hereby orders Watts, 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 a coating onto metal and/or plastic parts and products, Watts shall comply with the following emission limits for each coating used. 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:
 - (i) Until January 1, 2016, the content limit for the following coatings shall be as specified:
 1. For air-dried general, one component and general, multi-component coatings, equivalent to 3.5 lbs VOC/gallon; and
 2. For baked general, one component and general, multi-component coatings shall be equivalent to 3.0 lb VOC/gallon.
 - (ii) Beginning January 1, 2016, the VOC content for miscellaneous metal parts coatings shall be limited as specified for the applicable coating categories listed in Table 1212-1 of Env-A 1212.04.
- 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

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

- (i) "E_{al}" means the allowable VOC emission rate of a given coating in units of lb/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 on a given day in units of lb/month or kg/month;
- (iii) "D" means the density of the coating or dilution solvent in units of lb/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

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 lb/month;
- (ii) "W" means the weight of coating or dilution solvent used in the coating line on a given day in units of lb/month;
- (iii) "WV" means the weight fraction of VOC content of the coating, in units of lb 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 emission 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. Demonstration of Compliance

Watts shall either test all coatings using the Methods described below, or retain sufficient records for prima facie evidence in support of demonstrating compliance with the VOC RACT limit.

- a. 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
- b. Method 24A, 40 CFR Part 60, Appendix A, or an alternative test method approved by the Director and EPA.

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.

7. Recordkeeping Requirements

Watts 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. Records of tests conducted pursuant to Part D.5, above.
- b. Records of prima facie evidence gathered pursuant to Part D.5, above.
- c. Records required to be maintained pursuant to Env-A 904, *VOC Emission Statements Recordkeeping Requirements*, except that actual VOC emissions shall be recorded on a monthly basis instead of an annual basis.

8. Reporting Requirements

Watts shall submit the following reports:

- a. Emission reports in accordance with Env-A 908, *VOC Emission Statements Reporting Requirements*; and
- b. Discrete Emissions Reductions reports in accordance with Part E.

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

- a. Watts shall control VOC emissions from VOC-containing coatings, thinners, and coatings-related waste materials shall by using the following work practices:
 - i. Storing all VOC-containing coatings, thinners, and coatings-related waste materials in closed containers;
 - ii. Keeping mixing and storage containers closed at all times except when depositing or removing VOC-containing coatings, thinners, and coatings-related waste materials;
 - iii. Minimizing spills of VOC-containing coatings, thinners, and coatings-related waste materials; and

- iv. Conveying VOC-containing coatings, thinners, and coatings-related waste materials from one location to another in closed containers or pipes.
- b. Watts shall control VOC materials from cleaning materials by using the following work practices:
 - i. Storing VOC-containing cleaning materials and used shop towels in closed containers;
 - ii. Keeping mixing and storage containers closed at all times except when depositing or removing VOC-containing materials;
 - iii. Minimizing spills of VOC-containing cleaning materials;
 - iv. Conveying VOC-containing cleaning materials from one location to another in closed containers or pipes; and
 - v. Minimizing VOC emissions from the cleaning of storage, mixing and conveying equipment by ensuring that:
 1. An atomized mist of spray gun cleaning solvent and paint residue is not created outside of a container that collects the used gun cleaning solvent; and
 2. All spent solvent is captured in closed containers.

E. Emissions Reductions Credits

1. Watts 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 68078 dated November 14, 2000, or other emission trading credits approved for use in New Hampshire.
2. DERs certified for reductions of nitrogen oxides (NO_x) may be substituted for VOC reductions in a ratio of 1:1, or an alternative ratio approved by DES and EPA.
3. Annually by November 30, Watts shall submit a report to DES 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 DES will suffice);
 - c. The protocol used to document the amount of DERs needed to demonstrate compliance; and
 - d. A certified statement attesting that Watts is in compliance with Env-A 1400, *Regulated Toxic Air Pollutants*.
4. Annually by April 15, Watts shall submit a report to DES 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;

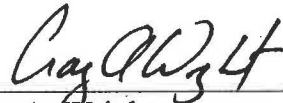
- b. The cost of the DERs;
- c. The amount of DERs used and the associated serial numbers assigned by the DES;
- d. A calculation of the amount of DERs required to demonstrate compliance with the emission limits stated in Part D, above. DERs shall be calculated on an annual basis by summing the monthly 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 DES 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:

Air Permits Programs Manager
NHDES, Air Resources Division
Stationary Source Management Bureau
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
(603) 271-6796
(603) 271-1370

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

Emissions Trading Program Manager
NHDES, Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
(603) 271-6794



Craig A. Wright
Director
Air Resources Division

cc: Timothy Drew, PIP Office
Anne Arnold, USEPA
Town of Franklin
Ken Boivin, GZA GeoEnvironmental

W. H. C. C.