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DSE-412A-86
Amended 10/86

COMMONWEALTH of VIRGINIA

State Air Pollution Control Board

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RICHARD L. COOK
EXECUTIVE DIRECTOR

STATE IMPLEMENTATION PLAN

CONSENT AGREEMENT AND ORDER ADDRESSING

REYNOLDS METALS COMPANY'S
RICHMOND FOIL PLANT

REGISTRATION NO. 50534

SECTION A: Purpose

This Order is a reissuance of the Order designated DSE-412-86. It is issued to allow the Reynolds Metals Company, Richmond Foil Plant to operate the affected graphic arts facilities at the Plant with controls equivalent to those contained in Virginia's federally approved State Implementation Plan.

SECTION B: References

Unless the context indicates otherwise, the following words and terms have the meanings assigned to them below:

1. "Code" means the Code of Virginia (1950), as amended.
2. "BOARD" or "SAPCB" means the State Air Pollution Control Board, an agency of the Commonwealth of Virginia created pursuant to §10-17.11 of the Code. Particular powers and duties of the Board are referred to in Section C of this document.
3. "Order" means this Consent Agreement and Order.
4. "SAPCB Regulations" means the State Air Pollution Control Board's Regulations for the Control and Abatement of Air Pollution.
5. "Foil Plant" or the "Plant", refers to Reynolds Metals Company's Richmond Foil Plant at 7th and Bainbridge Streets, Richmond, Virginia.
6. "Daily" means the 24-hour time period beginning at 11:00 p.m.

7. "Reynolds Metals Company" or "Reynolds" refers to Reynolds Metals Company, 6601 West Broad Street, Richmond, VA 23261.
8. "RACT" refers to Reasonably Available Control Technology.

SECTION C: Authority

1. Chapter 1.2 of Title 10 of the Code of Virginia (1950), as amended (Code), creates the Board and vests in it the authority to supervise and control various aspects of air pollution in the Commonwealth. Among the grants of power to the Board is included the authority to promulgate regulations "abating, controlling and prohibiting" air pollution founded in §10-17.18(b).
2. Pursuant to its authority, the Board has promulgated regulations entitled "Commonwealth of Virginia, State Air Pollution Control Board, Regulations for the Control and Abatement of Air Pollution." The "SAPCB Regulations" first took effect March 17, 1972, with subsequent amendments.
3. Pursuant to §§10-17.18(d) and 10-17.18:1, the Board has the authority to issue orders to diminish or abate the causes of air pollution and to enforce its rules and regulations. Orders of the Board are enforceable pursuant to §10-17.23 of the Code.
4. The Executive Director is the chief executive officer of the Board. Under Code §10-17.14, the Executive Director is authorized to supervise, administer and enforce the provisions of Chapter 1.2 of Title 10 of the Code, as well as the rules, regulations, and orders of the Board. Additionally, the Executive Director shall have such powers as are conferred upon him by the Board. The SAPCB Regulations Appendix F contain the Delegation of Authority from the Board to the Executive Director. In paragraphs II (A) through (J) of Appendix F the Executive Director is given the authority to act to abate or control air pollution, approve consent agreements and consent orders, and perform other duties as prescribed by law or regulation and, as required, to carry out the policies and directives of the Board. In paragraph II (L) of Appendix F the Assistant Executive Director for Operations is delegated the authority to act for the Executive Director when he is absent for three or more days.

SECTION D: Findings

1. On April 5, 1982 the BOARD approved a plan outlining a compliance program for the Foil Plant representing RACT and on December 14, 1982 the BOARD and Reynolds entered into a Consent Agreement reflecting the Board approved plan.

2. Reynolds has fully complied with the 1982 Agreement.
3. On June 27, 1986 Reynolds and the SAPCB entered into a revised Order.
4. In order to resolve EPA questions, Reynolds has agreed to amend the previous orders and is agreeable to operating the affected facilities at the Richmond Foil Plant under an alternative compliance plan and schedule to that contained in the Orders or Appendix N., Section III of the Regulations.
5. The SAPCB Regulations, Section 120-04-3604 A, provide for the use of water-borne inks.
6. The SAPCB Regulations, Section 120-04-3604 D, provide for the use of alternative compliance programs.
7. The time granted by the BOARD has allowed Reynolds to develop its low solvent technology to the point where Reynolds can now improve its control technology.
8. Analysis and review by the BOARD of the emissions from the Foil Plant indicate that these emissions do not constitute a hazard to the health of the residents in the vicinity of the Plant, that the terms of this Order represent RACT for the affected facilities, and that the issuance of this Order will not interfere with but rather enhance the Board's strategy for attainment and maintenance of the ambient air quality standards.

SECTION E: Agreement and Order

Accordingly, the Board orders and Reynolds Metals Company agrees that:

1. This Order supersedes all previous agreements or Orders of the BOARD relative to affected graphic arts facilities at the Foil Plant with the exception of the companion Board Order DSE-414A-86.
2. Volatile organic compound emissions from the affected facilities at the plant shall be controlled and reduced as outlined in this Order.
3. The facilities at the Plant which are subject to this Order are: Cigarette machines Nos. 1, 2, 3, 4; coloring machine No. 7; glue mounters Nos. 1, and 23; Reyseal machines Nos. 2, 3, 4 and 5. In addition, any station on coloring machines either 1, 2, 6 or in-line machine No. 24 which is not being exhausted to the incinerator shall be subject to the requirements of Conditions 4 and 5.
4. The reduction in volatile organic compound emissions from the affected facilities at the Plant shall not be less than sixty-five (65) percent, by weight on a daily basis over the historical amount of solvent used to apply the same amount of solids.

Across line averaging of emission reductions will be utilized to determine compliance with the specified daily emission reduction requirement.

5. Compliance with requirements of Condition 3 and 4 will be determined by the use of a "Daily VOC Model." The model will calculate daily emission reductions by comparing actual solvent usings to the historical amount of solvent material which would have been used. The model will calculate daily emissions by measuring, on a job basis, all VOC bearing materials consumed. Total job usings shall be apportioned to individual days based on production records. The daily historical amount of solvent which would have been used shall be calculated by factors relating the daily amount of applied solids and the historical amount of solvent required to apply a pound of solids. The historical factors and compliance calculations are shown in Attachment A.
6. Records consisting of information as to the calculated daily reduction in emissions of volatile organic compounds from the affected facilities, except those emissions treated by add-on control equipment at the Plant, shall be kept available at the Plant for at least a two year time period. Reynolds shall provide the Board an exception report at the end of any quarter when the conditions of Section E, Condition 2, 3 and 4 of this Order DSE-412A-86 are not met.
7. The Board may modify, rewrite, or amend this Order for good cause shown by Reynolds or on its own motion, after notice and an opportunity for a hearing.
8. So long as this Order remains in effect, Reynolds Metals Company waives the right to public hearing (pursuant to Code §10-17.18:1) and to judicial review of any issue of fact or law contained herein. Nothing herein, however, shall be construed as a waiver of the right to a hearing or to judicial review of any action taken by the Board to enforce or modify this Order.
9. Failure by Reynolds Metals Company to comply with any of the terms of this Order shall constitute a violation of an Order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board as a result of such violations.
10. Reynolds Metals Company declares it has received fair and due process under the Administrative Process Act, Title 9, Chapter 1.1:1, Section 9-6.14; as affected by §10-17.18:1.
11. This Order shall become effective upon execution by both parties and shall continue in effect until terminated by the Board.

The foregoing Consent Agreement and Order has been executed on behalf of the STATE AIR POLLUTION CONTROL BOARD of the COMMONWEALTH OF VIRGINIA and on behalf of REYNOLDS METALS COMPANY, each by its duly authorized representatives, or self, on the dates indicated below.

STATE AIR POLLUTION CONTROL BOARD
OF THE COMMONWEALTH OF VIRGINIA

October 30, 1986
(date)

BY:

Richard L. Cook
Richard L. Cook
Executive Director

REYNOLDS METALS COMPANY

October 31, 1986
(date)

BY:

Rodney E. Hanneman JEM
Rodney E. Hanneman
Vice President
Corporate Quality Assurance
and Technology Operations

Changes
sketch
Revised in
Vigil letter
fr. L. Tropea
to P. Pitts

Emission Calculations Formulas
to Calculate Estimated Percent Reduction of VOC

Richmond Foil Plant
Registration No. 50534

VARIABLES

- Formulation
- X0 = Δ Solvents replaced by using water base inks
 - X1 = Total solvents replaced by water base inks (including formulation solvents and raw solvents)
 - X2 = Actual pounds of liquid flammable waste shipment credit per month
 - * X3 = Total solvent (~~applied~~^{VOC}) content in water base inks
 - X4 = Actual solvent emissions for this month (solvent inks + adhesives + raw solvents + water base inks - waste ship.)
 - X5 = Total solvents the plant is capable of using if water base inks are not used

Solvent base inks ratio: Δ Solvents/solids = 3.13643 (calculation based on a two years average of solvent ink data)

Total

Pro-rated ratio: Δ Solvents/formulation solvent = 1.56291 (Calculation based on two year average of raw solvent and formulation solvent usings)

FORMULAS

- X0 = 3.13643 X Actual pounds of applied solids
 - X1 = 1.56291 X X0
 - * X2 = Actual (see above)
 - X3 = Actual (see above)
 - X4 = Actual solvent usage (see above) - X2
 - X5 = X1 + X4 - X3
- $(1 - (X4 / X5)) \times 100 = \% \text{ reduction of emissions}$

*Does all liquid flammable waste shipped contain 100% VOC? If not, only credit should be received for VOC actually shipped.