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STATE OF WEST VIRGINIA
OFFICE OF THE SECRETARY OF STATE
CHARLESTON 25305

A. JAMES MANCHIN
SECRETARY OF STATE

STATE REGISTER FILING

I, Carl G. Beard, II, Secretary,
Title or Position

Air Pollution Control Commission, hereby submit to record in
Department or Division

the State Register on 8 1/2 x 11" paper two (2) copies of

- proposed rules and regulations concerning topics of material not covered by existing rules and regulations;
- proposed rules and regulations superseding rules and regulations already on file;
- notice of hearing;
- findings and determinations;
- rules and regulations; or
- other - specify ()

This filing pertains to

Chapter 16
Article 20
Series XXV
Section _____
Page No. _____

- proposed rules and regulations are required to go to Legislative Rule Making Committee;
- proposed rules and regulations are excluded from Legislative Rule Making Committee;

December 15, 1978
Date Submitted

Carl G. Beard II
Signature of Person Authorizing
this Filing - Carl G. Beard, II

NOTICE OF PUBLIC HEARINGS

Pursuant to the provisions of Chapter 16 and Chapter 29A of the Code of West Virginia and the Federal Clean Air Act, as amended, notice is hereby given that the West Virginia Air Pollution Control Commission will hold public hearings concerning proposed regulations to establish the means and methods for the attainment of National Ambient Oxidant Standards in Air Quality Control Region IV by the reduction of volatile organic compounds. On the same date, hearings will also be held concerning the following proposed regulations:

Regulation XIX - "To Prevent and Control Air Pollution

From the Emission of Volatile Organic Compounds

From the Manufacturing and Use of Cutback Asphalt";

Regulation XX - "To Prevent and Control Air Pollution

From the Emission of Volatile Organic Compounds

From Gasoline Service Stations Stage I";

Regulation XXI - "To Prevent and Control Air Pollution

From the Emission of Volatile Organic Compounds

From the Storage of Petroleum Liquids in Fixed

Roof Tanks";

Regulation XXII - "To Prevent and Control Air Pollution

From the Emission of Volatile Organic Compounds

From Bulk Gasoline Plants";

Regulation XXIII - "To Prevent and Control Air Pollution

From the Emission of Volatile Organic Compounds

From Bulk Gasoline Terminals";

Regulation XXIV - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds
From Petroleum Refinery Sources";

Regulation XXV - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds From
Solvent Metal Cleaning Operations";

Regulation XXVI - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds
From Automobile and Light Duty Truck Manufacturing
Operations";

Regulation XXVII - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds From
Can Manufacturing Operations";

Regulation XXVIII - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds From
Metal Furniture Manufacturing Operations";

Regulation XXIX - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds From
Paper and Textile Manufacturing Operations" and

Regulation XXX - "To Prevent and Control Air Pollution
From the Emission of Volatile Organic Compounds From
Large Appliance Manufacturing Operations".

more more more

Proposed Regulation XXVI through Regulation XXX will apply to all of West Virginia, while proposed Regulation XIX through Regulation XXV will apply only to Air Quality Control Region IV.

The public hearings will be held on Tuesday, January 16, 1979, at 9:15 a.m. in the Charleston Civic Center "North Gallery" located on Reynolds Street, Charleston, Kanawha County, West Virginia.

Copies of the proposed additions to West Virginia's Implementation Plan are available for public inspection in the offices of the West Virginia Air Pollution Control Commission located at 1558 Washington Street, Charleston, West Virginia., and the West Virginia Air Pollution Control Commission's Northern Panhandle Regional Office located at 1911 Warwood Avenue, Wheeling, West Virginia.

Any person who desires to submit exhibits or other written material must submit the exhibits or documents and eleven (11) copies thereof.

The hearings are open to the public and comments from any person will be received and made part of the record.

Carl G. Beard, II
Secretary
West Virginia Air Pollution
Control Commission

WEST VIRGINIA ADMINISTRATIVE REGULATIONS
AIR POLLUTION CONTROL COMMISSION

PROPOSED REGULATION

REGULATION XXV

"TO PREVENT AND CONTROL AIR POLLUTION FROM
THE EMISSION OF VOLATILE ORGANIC COMPOUNDS
FROM SOLVENT METAL CLEANING OPERATIONS"

Proposed Regulation

A public hearing will be held concerning proposed additions to West Virginia's Implementation Plan relative to the attainment and maintenance of Ambient Air Quality Standards for Photochemical Oxidants (Ozone) on Tuesday, January 16, 1979, at 9:15 a.m. at the Charleston Civic Center, "North Gallery", located on Reynolds Street, Charleston, Kanawha County, West Virginia. Following the hearing on proposed additions to the Implementation Plan, public hearings will be held, in consecutive order, concerning proposed Regulations XIX, XX, XXI, XXII, XXIII, XXIV, XXV, XXVI, XXVII, XXVIII, XXIX and XXX.

WEST VIRGINIA ADMINISTRATIVE REGULATIONS
Air Pollution Control Commission

Chapter 16-20
Series XXV
(1979)

Subject: Regulation XXV - To Prevent and Control Air Pollution From
the Emission of Volatile Organic Compounds From Solvent
Metal Cleaning Operations.

Section 1. Intent and Purpose.

It is the intent of the Commission that all persons engaged in
cold cleaning, open top vapor degreasing and conveyORIZED
degreasing operations control the emission of volatile organic
compounds through the application of reasonably available control
technology.

Section 2. Area Affected.

This regulation applies to sources located in West Virginia
Air Quality Control Region IV (Putnam County, Kanawha County
and Valley Magisterial District of Fayette County).

Section 3. Definitions.

3.01. "Air Pollution," 'statutory air pollution,' shall have the meaning
ascribed to it in Section Two of Chapter Sixteen, Article Twenty
of the Code of West Virginia, as amended.

- 3.02. "Approved" shall mean approved by the designated official of the West Virginia Air Pollution Control Commission.
- 3.03. "Cold cleaning" shall mean the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.
- 3.04. "Commission" shall mean the West Virginia Air Pollution Control Commission.
- 3.05. "Condensate" shall mean hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.
- 3.06. "Construction" shall mean commencement of onsite fabrication, erection, or installation of an emission source, air pollution control equipment, or a facility.
- 3.07. "Control device" shall mean equipment (incinerator, adsorber, or the like) used to destroy or remove air pollutant(s) prior to discharge into the ambient air.
- 3.08. "Conveyorized degreasing" shall mean the continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvents.
- 3.09. "Day" shall mean a 24-hour period beginning at midnight.

- 3.10. "Director" shall mean the director of the West Virginia Air Pollution Control Commission.
- 3.11. "Emission" shall mean the release or discharge, whether directly or indirectly, of any air pollutant into the ambient air from any source.
- 3.12. "Facility" shall mean any building, structure, installation, activity, or combination thereof which contains a stationary source of air contaminants.
- 3.13. "Freeboard height" shall mean the distance from the top of the vapor zone to the top of the degreaser tank.
- 3.14. "Freeboard ratio" shall mean the freeboard height divided by the width of the degreaser.
- 3.15. "Hydrocarbon" shall mean any organic compound of carbon and hydrogen only.
- 3.16. "Open top vapor degreasing" shall mean the batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapor on the colder metal parts.
- 3.17. "Organic material" means a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.
- 3.18. "Owner or operator" shall mean any person who owns, leases, controls, operates or supervises a facility, an emission source, or air pollution control equipment.

- 3.19. "Person" shall mean any and all persons, natural or artificial, including any municipal, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership, or association of whatever nature.
- 3.20. "Reasonably available control technology" (also denoted as RACT) shall mean the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. It may require technology that has been applied to similar, but not necessarily identical, source categories.
- 3.21. "Solvent" shall mean organic materials which are liquid at standard conditions and which are used as solvers, viscosity reducers, or cleaning agents.
- 3.22. "Solvent metal cleaning" shall mean the process of cleaning soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyORIZED degreasing.
- 3.23. "Standard conditions" shall mean a temperature of 20°C (68°F) and pressure of 760 millimeters of mercury (29.92 inches of mercury).
- 3.24. "Volatile organic compound" (also denoted as VOC) shall mean any compound of carbon that has a vapor pressure greater than 0.1 millimeters of mercury at standard conditions excluding

carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. For the purposes of this Regulation, 1, 1, 1-Trichloroethane (Methyl Chloroform) and Trichloro-trifluoroethane (Freon 113) shall not be considered volatile organic compounds.

Section 4. Control and Prevention of Emissions.

4.01. The owner or operator of a cold cleaning facility subject to this Regulation shall:

(a) Equip the cleaner with a cover and the cover shall be so designed that it can be easily operated with one hand; if,

(1) the solvent volatility is greater than 2 kilo Pascals (15 millimeters of mercury or 0.3 pounds per square inch) measured at 38°C (100°F); or,

(2) the solvent is agitated; or,

(3) the solvent is heated; and,

(b) Equip the cleaner with a facility for draining cleaned parts and the drainage facility shall be constructed internally so that parts are enclosed under the cover while draining if the solvent volatility is greater than 4.3 kilo Pascals (32 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), except that the drainage facility may be external for application where an internal type cannot fit into the cleaning system; and,

(c) Install one of the following control devices if the solvent volatility is greater than 4.3 kilo Pascals (33 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), or if the solvent is heated above 50°C (120°F);

(1) freeboard that gives a freeboard ratio greater than or equal to 0.7; or,

(2) water cover (solvent must be insoluble in and heavier than water); or,

(3) other systems of equivalent control, such as refrigerated chiller or carbon adsorption, approved by the Director; and,

(d) Provide a permanent, conspicuous label, summarizing the operating requirements; and,

(e) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(f) Close the cover whenever parts are not being handled in the cleaner; and,

(g) Drain the cleaned parts for at least 15 seconds or until dripping ceases; and,

(h) If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure which does not cause excessive splashing.

4.02. The owner or operator of an open top vapor degreaser subject to this Regulation shall:

(a) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone; and,

(b) Provide the following safety switches;

(1) a condenser flow switch and thermostat which shut off the pump heat if the condenser coolant is either not circulating or too warm; and,

(2) a spray safety switch which shuts off the spray pump if the vapor level drops more than 10 centimeters (4 inches); and,

(c) Install one of the following control devices;

(1) powered cover, if the freeboard ratio is greater than or equal to 0.75, and if the degreaser opening is greater than 1 square meter (10 square feet); or,

(2) refrigerated chiller; or,

(3) enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser); or,

(4) carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square foot of air/vapor area (when cover is open), and exhausting

less than 25 parts per million of solvent averaged over one complete adsorption cycle; or,

(5) a control system, demonstrated to have control efficiency equivalent to or greater than any of the above, and approved by the Director; and,

(d) Keep the cover closed at all times except when processing work loads through the degreaser; and,

(e) Minimize solvent carryout by;

(1) racking parts to allow complete drainage; and,

(2) moving parts in and out of the degreaser at less than 3.3 meters per second (11 feet per minute; and,

(3) holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and,

(4) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,

(5) allowing parts to dry within the degreaser for at least 15 seconds or until visually dry; and,

(f) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope; and,

(g) Not occupy more than half of the degreaser's open top area with a workload; and,

(h) Not load the degreaser to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone; and,

(i) Always spray below the vapor level; and,

(j) Repair solvent leaks immediately, or shutdown the degreaser; and,

(k) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(l) Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

(m) Not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area, unless necessary to meet OSHA requirements; and,

(n) Provide a permanent, conspicuous label, summarizing the operating procedures of paragraphs (d) through (l) of this Sub-Section.

4.03. The owner or operator of a conveyORIZED degreaser subject to this Regulation shall:

(a) Not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser opening, unless necessary to meet OSHA requirements; and,

(b) Install one of the following control devices:

(1) refrigerated chiller; or,

(2) carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete adsorption cycle; or,

(3) a system, demonstrated to have a control efficiency equivalent to or greater than paragraph (b) (1) or (b) (2) of this Sub-Section, and approved by the Director; and,

(c) Equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor; and,

(d) Provide the following safety switches;

(1) a condenser flow switch and thermostat which shut off the pump heat if the condenser coolant is either not circulating or too warm; and,

- (2) a spray safety switch which shuts off the spray pump or the conveyor if the vapor level drops more than 10 centimeters (4 inches); and,
- (3) a vapor level control thermostat which shuts off the pump heat when the vapor level rises too high; and,
- (e) Minimize openings during operation so that entrances and exits will silhouette workloads with an average clearance between the parts and the edge of the degreaser opening of less than 10 centimeters (4 inches) or less than 10 percent of the width of the opening; and,
- (f) Provide downtime covers for closing off the entrance and exit during shutdown hours; and,
- (g) Minimize carryout emissions by:
 - (1) racking parts for best drainage; and,
 - (2) maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute); and,
- (h) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,
- (i) Repair solvent leaks immediately, or shut down the degreaser; and,

(j) Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

(k) Place downtime covers over entrances and exits of conveyORIZED degreasers immediately after the conveyors and exhausts are shut-down and not remove them until just before start-up.

4.04. (a) No person may cause, allow, or permit the disposal of more than 5.7 liters (1.5 gallons) of any volatile organic compounds, or of any materials containing more than 5.7 liters (1.5 gallons) of any volatile organic compounds, in any one day in a manner that would permit their evaporation into the atmosphere.

(b) Paragraph (a) of this Sub-Section includes, but is not limited to, the disposal of volatile organic compounds which must be removed from volatile organic compound control devices so as to maintain the control devices at their required operating efficiency.

4.05. (a) Realizing that compliance with the provisions of this Section may, in some cases, be technologically infeasible, the Commission may, upon specific application by the owner or operator of a solvent metal cleaning device, grant exemptions from these provisions. However, the petition must be submitted in writing in a manner approved by the Director and must contain:

(1) a detailed description of the proposed alternative operational and/or equipment controls, the magnitude of

volatile organic compound emission reduction which will be achieved, and the quantity and composition of volatile organic compounds which will be emitted if the alternative operational and/or equipment controls are instituted; and,

(2) a plan, which will be instituted in addition to the proposed alternative operational and/or equipment controls, to reduce volatile organic compound emissions from other source operations, not required under this Regulation, such that aggregate volatile organic compound emissions from the facility will in no case be greater through application of the alternative control than would be permitted through conformance with this Section; and,

(3) a schedule for the installation and/or institution of the alternative operational and/or equipment controls.

(b) From time to time the Commission shall review such exemptions to determine if they are still warranted. If the Commission revises or terminates an exemption, the owner or operator of the affected solvent metal cleaning device shall be notified by certified mail. Such revision or terminations shall not become effective for at least ninety (90) days after the receipt of notification by the owner or operator.

Section 5. Registration.

5.01. Within thirty (30) days after the effective date of this Regulation all persons owning and/or operating a solvent metal cleaning device subject to this Regulation and not previously registered shall have registered such source(s) with the Commission. The information required for registration shall be determined and provided in the manner specified by the Director. Registration forms should be requested from the Director by the owner or operator of such source(s).

5.02. The owner or operator of a solvent metal cleaning device that is in the process of being installed, or on which installation is initiated within thirty (30) days after the effective date of this Regulation shall register such source(s) within this thirty (30) day period.

Section 6. Permits.

After the effective date of this Regulation, no person shall install or modify any solvent metal cleaning device subject to this Regulation without first obtaining a permit for such installation or modification. Applications for permits shall be made upon forms available from the Director and shall be filed no less than thirty (30) days prior to the installation or modification. These forms shall include such information as in the judgment of the Director

will enable him to determine whether such source will be so designed as to operate in conformance with the provisions of this Regulation and the Code of West Virginia, and will not cause or contribute to the violation of Air Quality Standards.

Section 7. Reports and Testing.

7.01. At such reasonable times as the Director may designate, the owner or operator of any solvent metal cleaning device may be required to conduct or have conducted tests to determine the compliance of such device(s) with the limitations of Section 4. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the owner or operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment to comply with generally accepted good safety practices.

7.02. For the purpose of determining the volatile organic compound emissions from solvent metal cleaning equipment, the following procedure shall be performed:

- (a) Clean the degreaser sump before testing.
- (b) Record the amount of solvent added to the tank with a flow meter.

(c) Record the weight and type of work load degreased each day.

(d) At the end of the test run, pump out the used solvent and measure the amount with a flow meter. Also, estimate the volume of metal chips and other material remaining in the emptied sump, if significant.

(e) Bottle a sample of the used solvent and analyze it to find the percent that is oil and other contaminants. The oil and solvent proportions can be estimated by weighing samples of used solvent before and after boiling off the solvent. Compute the volume of oils in the used solvent. The volume of solvent displaced by this oil along with the volume of make-up solvent added during operations is equal to the solvent emission.

7.03. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in Section 4.

7.04. The Commission may publish, and from time to time revise, detailed test procedures and reporting instructions implementing the provisions of this Regulation.

Section 8. Compliance Programs and Schedules.

8.01. In the event that a solvent metal cleaning device subject to this Regulation and in existence prior to the adoption of this Regulation

does not meet the limitations set forth in Section 4, an acceptable program to fully comply with this Regulation shall be developed and offered to the Commission by the person responsible for said device. This program shall be submitted upon the request of, and within such time as shall be fixed by the Commission. Once this program has been approved by the Commission, the owner and/or operator of such device shall not be in violation of this Regulation so long as the approved or amended program is observed.

8.02. In the event that an owner or operator of such a solvent metal cleaning device fails to submit a program or an acceptable program and schedule, the Commission shall, by order, determine the compliance program and schedule.

Section 9. Variance.

If the provisions of Section 4 cannot be satisfied due to unavoidable malfunction of equipment, the Director may permit the owner or operator of a solvent metal cleaning device subject to this Regulation to continue to operate for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction. In cases of major equipment failure, additional

time periods may be granted by the Commission provided a corrective program has been submitted by the owner or operator and approved by the Commission.

Section 10. Exemptions.

10.01. Sources subject to this Regulation whose emissions of volatile organic compounds are not more than 6.8 kilograms (15 pounds) in any one day, nor more than 1.4 kilograms (3 pounds) in any one hour will be exempt from Sections 4 through 9, provided the emission rates are determined and certified before March 1, 1979, in a manner approved by the Director.

10.02. Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance will be exempt from Sections 4 through 9 provided;

(a) ~~The operation of the source is not an integral part of the~~ production process; and,

(b) The emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and,

(c) The exemption is approved in writing by the Director.

10.03. Open top vapor degreasers with an open area smaller than 1 square meter (10.8 square feet) shall be exempt from paragraphs (c) (2) and (c) (4) of Sub-Section 4.02.

10.04. ConveyORIZED degreasers with an air/vapor interface smaller than 2.0 square meters (21.6 square feet) shall be exempt from paragraph (b) of Sub-Section 4.03.

Section 11. Effective Date.

Regulation XXV shall become effective _____,

19 ____.