WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

FORM #3

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE AND FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: Division of Environmental Protection, Office of Air Quality TITLE NUMBER: 45

CITE AUTHORITY W.Va. Code §§22-5-1 et seq.

AMENDMENT TO AN EXISTING RULE: YES X NO ____

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 7

TITLE OF RULE BEING AMENDED: "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations"

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: ____

TITLE OF RULE BEING PROPOSED: ____

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE FOR THEIR REVIEW.

John A. Johnson

Authorized Signature

CECIL H. UNDERWOOD
GOVERNOR

BUREAU OF ENVIRONMENT
10 McJunkin Road
Nitro, WV 25143-2506

JOHN E. CAFFREY
COMMISSIONER

August 13, 1997

Ms. Judy Cooper
Director, Administrative Law Division
Office of the Secretary of State
Capitol Complex
Charleston, West Virginia 25305

RE: 45CSR7 - "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

Dear Ms. Cooper:

This is to advise that I am giving approval to file the above-referenced rule as an agency-approved rule with your office and Legislative Rule-Making Review Committee.

Your cooperation in this regard is very much appreciated. If you have any questions or require additional information, please feel free to contact Carrie Chambers at 759-0515.

Sincerely yours,

John E. Caffrey
Commissioner

JEC:cc

Attachment

DATE: August 14, 1997

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

FROM: JOHN H. JOHNSTON
CHIEF, OFFICE OF AIR QUALITY
DIVISION OF ENVIRONMENTAL PROTECTION

LEGISLATIVE RULE TITLE: Series 7 - "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations"

1. Authorizing statute(s) citation W. Va. Code §§22-5-1 et seq.

2. a. Date filed in State Register with Notice of Hearing:

June 27, 1997

b. What other notice, including advertising, did you give of the hearing?

Class I legal advertisement filed in the Charleston Daily Mail and the Charleston Gazette. Notice was also filed in the WV in DEPth news letter.

c. Date of hearing(s): August 4,1997

d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments.

Attached X No comments received ____

e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)

August 14,1997

f. Name and phone number of agency person to contact for additional information:

John H. Johnston, Chief

Office of Air Quality

Phone: 558-2496

3. If the statute under which you promulgated the submitted rules requires certain findings and determinations to be made as a condition precedent to their promulgation:

a. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

N/A

b. Date of hearing: N/A

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

N/A

d. Attach findings and determinations and reasons:

Attached N/A

TITLE 45
LEGISLATIVE RULE
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

SERIES 7
TO PREVENT AND CONTROL PARTICULATE AIR POLLUTION FROM MANUFACTURING PROCESS OPERATIONS

§45-7-1. General.

1.1. Scope. -- The purpose of Series 7 is to prevent and control particulate air pollution from manufacturing process operations.

1.2. Authority. -- W. Va. Code §22-5-1 et seq.

1.3. Filing Date. -- ~~October 7, 1993.~~

1.4. Effective Date. -- ~~April 27, 1994.~~

§45-7-2. Definitions.

2.1. "Air Pollution", 'statutory air pollution' shall have the meaning ascribed to it in W. Va. Code §22-5-2.

2.2. [RESERVED]

2.3. "Director" means the Director of the Division of Environmental Protection or his or her designated representative.

2.4. "Person" means any and all persons, natural or artificial, including the State of West Virginia or any other state and all agencies or divisions thereof, any state political subdivision, the United States of America, any municipal, statutory, 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.

2.5. "Particulate Matter" means any material, except uncombined water, that exists in a finely divided form as a liquid or solid.

2.6. "Smoke" means small gasborne and airborne particulate matter emitted in sufficient numbers to be visible.

2.7. "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

2.8. "Ringelmann Smoke Chart" means the Ringelmann's Scale for Grading the Density of Smoke published by the United States Bureau of Mines or any chart, recorder, indicator, or device which is standardized method for the measurement of smoke density which is approved by the Director as the equivalent of said Ringelmann Scale.

2.9. "Fugitive Particulate Matter" means any and all particulate matter generated by any manufacturing process which, if not confined, would be emitted directly into the open air from points other than a stack outlet.

2.10. "Fuel" means any form of combustible matter (solid, liquid, vapor, or gas) that is used as a source of heat.

2.11. "Air Pollution Control Equipment" means any equipment used for collecting or converting smoke and/or particulate matter for the purpose of preventing or reducing emission of these materials into the open air.

2.12. "Standard Conditions" means for the purposes of this rule a temperature of 68 degrees F and a pressure of 29.92 inches of mercury column.

2.13. "Stack" for the purpose of this rule, means but not be limited to any duct, control equipment exhaust, or similar apparatus, which is

designed to vent gases containing particulate matter into the open air.

2.14. "Plant" means and includes all equipment, grounds, source operations, and any manufacturing process(es) utilized in an integral complex.

2.15. "Manufacturing Process" means any action, operation or treatment embracing chemical, industrial, or manufacturing efforts, and employing, for example, heat treating furnaces, by-product coke plants, core-baking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, electric steel furnaces, ferrous and non-ferrous foundries, kilns, stills, driers, crushers, grinders, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, or gaseous matter.

2.16. "Process Weight" means that total weight of all materials introduced into a source operation, excluding solid, liquid, and gaseous fuels used solely as fuels, and excluding all process and combustion air.

2.17. "Process Weight Rate" means a rate established as follows:

2.17.a. For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

2.17.b. For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

2.18. "Physical Change" means for the purpose of this rule, any change in a substance which does not change the properties of the substance. Such changes include but are not limited to crushing, grinding, drying, change of state and sizing.

2.19. "Chemical Change" means for the purpose of this rule, any change in a substance which does change the properties of the substance and by which a new substance is formed.

2.20. "Source Operation" means the last operation in a manufacturing process preceding the emission of air contaminants which operation:

2.20.a. Results in the separation of air contaminants from the process materials or in the conversion of the process materials into air contaminants, and

2.20.b. Is not an air pollution abatement operation.

2.21. "A Duplicate Source Operation" means any combination of two (2) or more individual source operations of any size that have the same nomenclature, either formerly adopted and/or commonly sanctioned by usage such as but not limited to two or more rotary driers, basic oxygen furnaces, or electric arc furnaces contained in the same plant.

2.22. "Source Operation Type" means a categorization established as follows:

2.22.a. Type 'a' means any manufacturing process source operation involving glass melting, calcination or physical change except as noted in Type 'c' below.

2.22.b. Type 'b' means any metallurgical manufacturing process source operation. Gray iron cupolas located in the counties of Brooke, Hancock, Ohio, Marshall, and Kanawha; and the Magisterial Districts of Valley (Fayette County), Scott and Pocatalico (Putnam County), Tygart (Wood County), and Union and Winfield (Marion County west of I-79) shall be classified as Type 'b' source operations.

2.22.c. Type 'c' means any wet cement manufacturing process source operation which is used for the primary purpose of calcination. Gray iron cupolas located in the areas of the state other than those defined in subsection 2.22.b shall be classified as Type 'c' source operations.

2.22.d. Type 'd' means any manufacturing process source operation in which materials of any origin undergo a chemical change unless otherwise classified.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of source operation type, the interpretation of the Director shall apply.

2.23. "By-Product Coke Production Facility" means the production of coke by the destructive distillation of coal in recovery type ovens in which gaseous and liquid distillates are separated and recovered as by-products, and includes any on-site coal preparation, charging, coking, coke pushing, hot coke transfer, coke quenching, coke handling and the separation and preparation of distillates.

2.24. "Non-Recovery Coke Production Facility" means the destructive distillation of coal in which the gaseous and liquid distillates are separated from coal, but not recovered as by-products, and includes any on-site coal preparation, charging, coking, coke pushing, hot coke transfer, coke quenching and coke handling.

2.25. "Offtake Piping" means the piping that transports gaseous by-products of the coking cycle from an oven to the coke oven gas collector main, such as standpipes, standpipe caps, goosenecks and slipjoints.

2.26. "Coke Battery Topside" means the top of the coke battery including, but not necessarily limited to, charging ports, charging port lids, inspection lids, refractory ceiling, offtake piping and the coke oven gas collector main.

2.27. "Topside Emissions" means any smoke and/or particulate matter emissions from one or more points on the topside of a coke oven battery excluding charging emissions.

2.28. "Charging Operation" means any operation or procedure by which coal is introduced into a coke oven. For coke oven batteries employing larry cars, the charging operation shall begin when the gate(s) on the larry car coal hopper is (are) opened or the mechanical feeders start the flow of coal into the first charging port(s) until the oven is completely charged and the last charging port lid is seated.

2.29. "Charging Port" means any opening through which coal is, or may be, introduced into a coke oven, whether or not such opening is regularly used for that purpose.

2.30. "Charging Emissions" means any smoke and/or particulate matter emissions from one or more charging ports, space between charging port rings and oven refractory, drop sleeves, larry car hoppers, or emissions from any devices used for the capture and cleaning of emissions resulting from charging operations but shall not include emissions resulting from the temporary removal of a charging port lid for the purpose of sweeping coal spillage into the oven just charged after all lids have been seated over the charging ports following removal of the larry car.

2.31. "Pushing Operation" means the removal of coke from a coke oven and shall begin when the coke mass starts to move and shall continue until the coke transfer car enters the quenching station.

2.32. "Pushing Emissions" means any smoke and/or particulate matter emissions resulting from the pushing operation.

2.33. "Transport Emissions" means any smoke and/or particulate matter emissions which are emitted once the transport of the hot coke begins during the pushing operation and continues until the coke transfer car enters the quenching station.

2.34. "Door Area" means the vertical face of a coke oven between two adjacent buckstays.

2.35. "Door Area Emissions" means any smoke and/or particulate matter emissions from any door area including, but not limited to, emissions from the door, chuck door, door seal, jamb, or refractory.

2.36. "Quenching Operation" means the process by which the combustion of hot coke is stopped by application of water or any other procedure achieving the same effect.

2.37. "Quenching Emissions" means any smoke and/or particulate matter emissions resulting from the quenching operation.

2.38. "Ferroalloy Electric Submerged Arc Furnace" means any furnace used in production of ferroalloys wherein electrical energy is converted to heat energy by transmission of current between electrodes partially submerged in the furnace charge.

2.39. "Furnace Charge" means any material introduced into a ferroalloy electric submerged arc furnace, and may consist of, but is not limited to, ores, slag, carbonaceous material, and limestone.

2.40. "Tapping" means the removal of product and slag from a ferroalloy electric submerged arc furnace under normal operating conditions, such as removal of metal under normal pressure and movement by gravity down the spout into a ladle.

2.41. "Blowing Tap" means any tap associated with ferroalloy submerged arc furnace in which an evolution of gas forces or projects jets of flame or metal sparks beyond the ladle, runner, or collection hood.

2.42. "Poling" shall mean pushing a log timer into the furnace taphole to clear slag from the furnace tapping channel associated with operation of a ferroalloy electric submerged arc furnace.

2.43. "Oxygen Lancing" shall mean the burning open of a taphole to remove slag or product from the taphole associated with operations of a ferroalloy electric submerged arc furnace.

2.44. [RESERVED]

2.45. "Division of Environmental Protection" or "DEP" means that Division of the West Virginia Division of Environmental Protection which is created by the provisions of W. Va. Code §22-1-1, et seq..

Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in W. Va. Code §22-5-1, et seq.

§45-7-3. Emission of Smoke and/or Particulate Matter Prohibited and Standards of Measurement.

3.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is darker in shade or appearance than that designated as No. 1 Ringelmann or twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.

3.2. The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than No. 2 Ringelmann or forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

3.3. No person shall cause, suffer, allow, or permit the emission of smoke and/or particulate matter into the open air in excess of the following provisions from the operation of a by-product coke production facility in production on the effective date of this rule or a by-product coke production facility which is constructed as a replacement for a by-product coke production facility which shut down not more than three (3) years prior to the effective date of this rule:

3.3.a. Charging emissions from charging of any four consecutive ovens shall not exceed an aggregate time of more than one hundred (100) seconds.

3.3.b. Pushing emissions from pushing shall be vented into air pollution control equipment. Particulate matter emissions discharged from this air pollution control equipment shall not exceed a mass

particulate rate as determined by the following formula:

$$E = C^{.09}$$

Where E = particulate matter emissions rate in pounds per push and C = actual charge of coal in tons per oven.

The smoke and/or particulate matter emissions discharged from this air pollution control equipment and noncaptured pushing emissions shall not exceed twenty percent (20%) opacity.

3.3.c. Transport emissions from an enclosed quench car shall not exceed twenty percent (20%) opacity. Transport emissions from an open quench car shall not exceed ten percent (10%) opacity except that batteries employing pushing emissions control systems that were constructed prior to July 1, 1982 and which do not involve enclosed quench cars during transport shall meet the provisions of sections 3.1 and 3.2.

3.3.d. Coke side sheds and similar structures used to capture pushing emissions shall be designed and operated so as to prevent the escape of smoke and/or particulate matter from points other than the stack of the air pollution control equipment.

3.3.e. Coke oven topside emissions shall not exceed the following:

e.1. No more than two percent (2%) of the charging ports or charging port lids shall have smoke and/or particulate matter emissions excluding the last oven charged.

e.2. No more than ten percent (10%) of the off-take piping shall have smoke and/or particulate matter emissions.

e.3. No smoke and/or particulate matter emissions are permitted from the coke oven gas collector main or any other topside point except as provided by 3.3.e.1 or 3.3.e.2.

3.3.f. No more than ten percent (10%) of the door areas of operating coke ovens shall have door area emissions, excluding the door areas representing the last oven charged.

3.3.g. Quench towers shall employ as a minimum good baffle design with make-up water from the receiving stream, except that the blowdown from scrubbers of a pushing emission control system, dedicated to a specific battery, may be used as make-up water for the quench tower of that battery so long as suspended solids do not exceed two hundred (200) milligrams per liter. For batteries which this section applies the receiving stream shall be the Ohio River.

3.3.h. Smoke and/or particulate matter emissions from combustion stacks shall meet the requirements of subsections 3.1 and 3.2 and shall not exceed a concentration of 0.040 grains per dry standard cubic foot.

3.3.i. Good operating practices must be maintained to prevent the atmospheric entrainment of particulate matter resulting from the spillage or other deposition of coal and/or coke.

3.4. No person shall cause, suffer, allow, or permit the emission of smoke and/or particulate matter into the open air in excess of the following provisions from the operation of a new by-product coke production facility, other than a replacement by-product coke production facility that is constructed as per the provisions of subsection 3.3, that begins production after the effective date of this rule:

3.4.a. Charging emissions from the charging of any four (4) consecutive ovens shall not exceed an aggregate time of more than sixty (60) seconds.

3.4.b. Pushing emissions from pushing shall be vented into air pollution control equipment. The particulate matter emissions discharged from this air pollution control equipment shall not exceed a mass emission rate of 0.04 lb/ton of coal charged. The smoke and/or particulate matter emissions discharged from this air pollution control equipment and non-captured pushing emissions shall not exceed twenty percent (20%) opacity.

3.4.c. Transport emissions from an enclosed quench car shall not exceed twenty percent (20%) opacity. Transport emissions from an open quench car shall not exceed ten percent (10%) opacity.

3.4.d. Coke side sheds and similar structures used to capture pushing and/or quenching emissions shall be designed and operated so as to prevent the escape of smoke and/or particulate matter emissions from points other than the stack of the air pollution control equipment.

3.4.e. Coke oven topside emissions shall not exceed the following:

e.1. No more than two percent (2%) of the charging ports or charging port lids shall have smoke and/or particulate matter emissions excluding the last oven charged.

e.2. No more than five percent (5%) of the offtake piping shall have smoke and/or particulate matter emissions.

e.3. No smoke and/or particulate matter emissions are permitted from the coke oven gas collector main or any other topside point, except as provided by 3.4.e.1. and 3.4.e.2.

3.4.f. No more than eight percent (8%) of the door areas of operating coke ovens shall have door area emissions, excluding the door areas representing the last oven charged. Any battery affected by subsection 3.4 shall be constructed in a manner that will allow for the retrofitting of the battery with hooding to capture door emissions and air pollution control equipment designed to at least a ninety percent (90%) particulate control efficiency.

3.4.g. Quench towers shall employ, as a minimum, multiple row baffles and use make-up water not to exceed eight hundred (800) milligrams per liter of total dissolved solids and one hundred (100) milligrams per liter of total suspended solids.

3.4.h. Smoke and/or particulate matter emissions from combustion stacks shall meet the requirements of subsections 3.1 and 3.2 and shall not exceed a grain loading of 0.025 grains per dry standard cubic foot.

3.4.i. Good operating practices must be maintained to prevent the atmospheric entrainment of particulate matter resulting from the spillage or other deposition of coal/coke.

3.5. No person shall cause, suffer, allow, or permit the emission of smoke and/or particulate matter into the open air in excess of the following provisions from the operation of a non-recovery coke production facility:

3.5.a. Charging emissions from charging of any five (5) consecutive ovens shall not exceed an aggregate time of more than fifty (50) seconds.

3.5.b. No more than two percent (2%) of the coal charging ports shall have smoke and/or particulate matter emissions.

3.5.c. No more than two percent (2%) of the coke oven doors shall have smoke and/or particulate matter emissions excluding the ovens being charged and/or pushed.

3.5.d. Pushing emissions shall be vented to air pollution control equipment. The particulate matter emissions from this air pollution control equipment shall not exceed a mass emission rate as determined by the following formula:

$$E = C^{.09}$$

Where E = particulate emission rate in pounds per push and C = actual charge of coal in tons per oven.

The smoke and/or particulate matter emissions discharged from the air pollution control equipment and non-captured pushing emissions shall not exceed twenty percent (20%) opacity.

3.5.e. Transport emissions from an enclosed quench car shall not exceed twenty percent (20%) opacity. Transport emissions from an open quench car shall not exceed ten percent (10%) opacity.

3.5.f. Coke side sheds and similar structures used to capture pushing and/or quenching emissions, shall be designed and operated so as to prevent the escape of smoke and/or particulate matter emissions from points other than the stack of the air pollution control equipment.

3.5.g. Quench towers shall employ as a minimum, multiple row baffles and use make-up water not to exceed eight hundred (800) milligrams per liter of total dissolved solids and one hundred (100) milligrams per liter of total suspended solids.

3.5.h. Smoke and/or particulate matter from the combustion stack shall meet the requirements of subsections 3.1 and 3.2. The particulate emissions rate from combustion stacks shall not be greater than 0.060 grains per dry standard cubic foot or 1.0 lb/ton of coal charged, whichever is most restrictive.

3.5.i. Good operating practices must be maintained to prevent the atmospheric entrainment of particulate matter resulting from the spillage or other deposition of coal and/or coke.

3.6. The provisions of subsections 3.1 or 3.2 shall not apply to smoke and/or particulate matter emitted from the roof monitor(s) of a basic oxygen process or from a blast furnace cast house. The following provisions will apply:

3.6.a. Visible emissions from a basic oxygen process roof monitor shall not exceed twenty percent (20%) opacity except for a period or periods aggregating no more than three (3) minutes in any sixty (60) minute period where the average opacity for the aggregated period shall not exceed forty percent (40%) opacity.

3.6.b. Visible emissions from a blast furnace cast house shall not exceed twenty percent (20%) opacity except for a period or periods aggregating no more than five (5) minutes in any sixty (60) minute period where the average opacity for the aggregated period shall not exceed forty percent (40%) opacity.

3.7. No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.

§45-7-4. Control and Prohibition of Particulate Emissions by Weight from Manufacturing Process Source Operations.

4.1. No person shall cause, suffer, allow, or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.

4.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.

4.3. No person shall circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

4.4. If a duplicate source operation that meets the requirements of this rule is expanded or if a source operation that meets the requirements of this rule is expanded to form a duplicate source operation, the total allowable emission rate for the expanded portion shall be determined by the following formula:

$$R_e = \left(\frac{W_e}{W_{et}} \right) R_{et}$$

Where,

R_e is the total allowable emission rate in pounds per hour for the new expanded portion of the duplicate source operation;

W_{et} is the total operating process weight rate in pounds per hour of the source operation or duplicate source operation prior to expansion plus

the operating process weight rate of the new expanded portion;

R_{et} is allowable emission rate in pounds per hour found in subsection 4.1 opposite the process weight rate, W_{et};

W_e is the operating process weight rate in pounds per hour for the new expanded portion.

4.5. Separate stack emission rates for the new expanded portions of concern in subsection 4.4 shall be calculated as per subsection 4.9. The applicable stack emission rate(s) so calculated shall be additive with the existing emission rate for any stack used to vent both an existing source operation or duplicate source operation(s) and addition(s) or portion(s) thereof.

4.6. The operating process weight for new plants which will contain duplicate source operations shall include the total process weight of those duplicate units to be installed during the initial five (5) year operating period.

4.7. Except as noted in subsection 4.8, the increase of the operating process weight rate of any manufacturing process source operation or duplicate source operation by the operation of new, replacement, reactivated, and/or altered source operation(s) shall be considered as an expansion and the allowable emission rates from the source operation(s) which resulted in the increase shall be determined as per subsection 4.4.

4.8.

4.8.a. Type 'b' duplicate source operations whose air pollution control equipment efficiency is a minimum of ninety-nine percent (99%) by weight and whose total process weight rate is less than two hundred fifty thousand (250,000) pounds per hour shall be exempted from the requirements of subsection 4.1 provided that smoke emitted into the open air from any such duplicate source operation is not as dark or darker in shade or appearance than that designated as No. 1 Ringelmann or twenty percent (20%) opacity. If a duplicate source operation is expanded by the addition of a new source operation(s) and the total operating process weight rate is then greater than two hundred fifty thousand (250,000) pounds per hour, the allowable emission rates from the source operation which resulted in the increase above two hundred fifty thousand (250,000) pounds per hour shall be determined as per subsection 4.4.

4.8.b. Primary aluminum reduction potlines which are equipped with a fluidized bed reactor or other similar gas cleaning device which utilizes particulate matter as a media or as a component of a media for collecting or reducing the emissions of gaseous fluorides, shall be exempted from the requirements of subsections 4.1 and 4.4 provided that:

b.1. At least ninety-nine percent (99%) of the gaseous fluoride is removed from the exit gas stream by such device prior to discharging the cleaned gas stream to the open air; and

b.2. The particulate matter loading in the exit gas stream is not greater than 0.01 grains per standard cubic foot of dry stack gas; and

b.3. The smoke emitted into the open air from any such duplicate source operation is not as dark or darker in shade or appearance than that designated as No. 1 Ringelmann or twenty percent (20%) opacity. If a duplicate source operation is expanded by the addition of new source operation(s) and the total operating process weight rate is then greater than two hundred fifty thousand (250,000) pounds per hour, the allowable emission rates from the source operation which resulted in the increase above two hundred fifty thousand (250,000) pounds per hour shall be determined as per subsection 4.4.

4.8.c.

c.1. The emissions of gaseous fluorides and particulate fluorides from prebake cells within an existing primary aluminum plant in operation on or before January 26, 1976, shall be controlled by a system for continuous emission reduction which system shall achieve at least ninety percent (90%) fluoride emissions capture efficiency through its primary collection system and at least ninety-nine percent (99%) fluoride emissions removal efficiency through its primary removal system; and

c.2. Anode butts from such a plant which are recycled in an on-site anode bake plant shall be cleaned as necessary to minimize adherent fluoride bearing bath material.

4.9. Where more than one source operation or combinations thereof, which are part of a duplicate source operation, are vented through separate stacks, the allowable stack emission rates for the separate stacks shall be determined by the following formula:

$$R_s = R_t \left(\frac{W_s}{W_t} \right)$$

Where,

R_s is the allowable stack emission rate for the separate stack venting the source operation(s) in question;

R_t is the total allowable emission rate for the duplicate source operation;

W_s is the operating process weight rate for the source operation(s) vented through the separate stack;

W_t is the total operating process weight rate for the duplicate source operation.

4.10. The provisions of subsections 4.1, 4.4 and 4.9 shall not apply to the coking of coal.

4.11. The provisions of subsection 4.1 shall not apply to sinter processes, basic oxygen processes, blast furnace cast house operations, machine scarfing operations and hot metal transfer operations employed in the manufacturing of steel. The following provisions shall apply:

4.11.a.

a.1. Particulate matter emissions shall not exceed a concentration of 0.030 grains per dry standard cubic foot from a sinter strand windbox.

a.2. Particulate matter emissions shall not exceed a concentration of 0.020 grains per dry standard cubic foot from a sinter strand discharge.

a.3. Particulate matter emissions shall not exceed a concentration of 0.020 grains per dry standard cubic foot from the entry and exit ends of a sinter cooler.

4.11.b.

b.1. Particulate matter emissions from the stack of the main (primary) air pollution control equipment of a basic oxygen process, including emissions from fuel firing in an integral waste heat boiler, shall not exceed 0.11 lbs/ton of steel produced.

b.2. Particulate matter emissions from basic oxygen process secondary air pollution control equipment shall not exceed a concentration of 0.020 grains per dry standard cubic foot. The air pollution control device shall capture and control emissions from hot metal and scrap charging, tapping, turndown, slagging, and as required to control slopping emissions.

4.11.c. Particulate matter emissions from any blast furnace cast house air pollution control equipment shall not exceed a concentration of 0.020 grains per dry standard cubic foot.

4.11.d. Particulate matter emissions shall not exceed a concentration of 0.040 grains per dry standard cubic foot from hot metal transfer from torpedo car to BOF charging ladle during periods when hot metal transfer is actually performed.

4.11.e. Particulate matter emissions shall not exceed a concentration of 0.030 grains per dry standard cubic foot from a machine scarfing operation during periods in which scarfing is actually being performed.

4.12. The provisions of subsections 4.1, 4.4 and 4.9 shall not apply to petroleum coke calcining kilns in existence on April 1, 1982, provided that particulate matter vented into the open air from each kiln, measured in pounds per hour, shall not exceed

the amounts as determined by the following formulas:

4.12.a. When manufacturing regular (amorphous) coke:

$$E = 3.64P^{0.67}$$

Where E = allowable emission rate and P = the process weight rate in tons per hour, provided, however, that no kiln manufacturing regular (amorphous) coke shall exceed a maximum emission rate of fifty (50) pounds per hour.

4.12.b. When manufacturing graphite (crystalline) coke:

$$E = 16.89P^{0.67}$$

Where E = allowable emission rate in pounds per hour, and P = process weight rate in tons per hour, provided, however, that no kiln manufacturing graphite (crystalline) coke shall exceed a maximum emissions rate of two hundred (200) pounds per hour.

Provided further that each such kiln is equipped with an incinerator that will be operated at a temperature of not less than 1600 degrees F and have a residence time of twelve (12) seconds or longer when calcining regular coke and twenty-four (24) seconds or longer when calcining graphite coke, and provided further that, in the event a plant has more than one kiln, such plant shall be operated so that only one (1) of such kilns shall calcine graphite coke at any one time.

4.13. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

4.14. Potential Hazardous Material Emissions

Persons responsible for manufacturing process source operations from which hazardous particulate material may be emitted such as, but not limited to, lead, arsenic, beryllium, and other such materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluations of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Director working in conjunction with other appropriate governmental agencies.

4.15.a. No person shall cause, suffer, allow or permit the discharge of particulate matter in excess of 48.63 actual pounds per hour from all collection stacks in existence at any plant on June 1, 1993 which produces fiberglass insulation or other fiberglass products using the flame attenuation method.

b. The owner or operator of any facility subject to this subsection shall meet the following specific allowable emission rates for the designated collection stacks through which particulate matter is discharged; provided, however, the stacks may not exceed the total allowable emission rate set forth in paragraph 14.15.a above. The particulate matter concentration discharged from any collection stack may not exceed .018 gr/dscf; the source may, however, vary the emission rates among the stacks by filing written notice thereof with the Chief of the Office of Air Quality at least seven (7) business days in advance of any such alteration. The written notice shall contain the following: 1) the altered emission rates for each affected stack; 2) the rationale and supporting data, information or calculations used to derive the altered emissions rates; 3) an indication of whether any new product not previously produced by the plant will be made on the affected lines; 4) whether any new binder or resins not previously used by the plant will be used in the altered operating scenario subject to the notice; and 5) whether any other parameters and/or related recordkeeping forms are impacted by the alteration. Such changes must comply with the total allowable emission rate from all such stacks and may not exceed the per stack concentration limit set forth herein.

Stack ID	Proposed Emission Rate (lbs./hr.)
41N	3.25 (total)

41S	
42N	4.64 (total)
42S	
43N	4.88 (total)
43S	
44N	2.68 (total)
44S	
45N	9.25 (total)
45S	
46N	10.00 (total)
46S	
47	6.49
48	4.38
49	3.06

c. Source operations subject to this subsection shall not be subject to the other provisions of Section 4 except for subsections 4.2, 4.3, and 4.14.

§45-7-5. Control of Fugitive Particulate Matter.

5.1. No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system to minimize the emissions of fugitive particulate matter. To minimize means that a particulate capture or suppression system shall be installed to ensure the lowest fugitive particulate emissions reasonably achievable.

5.2. The owner or operator of a plant shall maintain dust control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment.

5.3. The provisions of sections 3.1, 3.2, and 5.1 shall not apply to particulate matter emitted from the operation of a ferroalloy electric submerged arc furnace in existence prior to June 1, 1993 during blowing taphole events, poling, and oxygen lancing operations. Poling emissions shall not exceed five (5) minutes in duration during any poling operation.

§45-7-6. Registration.

After the effective date of this rule all persons owning and/or operating an existing manufacturing process source operation not previously registered shall register such source operation with the Director. The information required for registration shall be determined by the Director, and shall be provided in the manner specified by the Director.

§45-7-7. Permits.

No person shall construct, modify, or relocate any manufacturing process source operation without first obtaining a permit in accordance with the provisions of W. Va. Code §22-5-1, et. seq., and Series 13 and 19 of Title 45.

§45-7-8. Report and Testing.

8.1. At such reasonable times as the Director may designate the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Director has reason to believe that the stack emission limitations(s) is/are being violated. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the 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 such as scaffolding, railings, and ladders to comply with generally accepted good safety practices.

8.2. The Director, or his duly authorized representative, may conduct such other tests as he or

she may deem necessary to evaluate air pollution emissions.

§45-7-9. Compliance Programs and Schedules.

9.1. In the event that process equipment or operations in existence prior to the adoption of this rule do not meet the emission limitations, an acceptable program to fully comply with the rule shall be developed and offered to the Director by the person responsible for the installation. This program shall be submitted upon the request of and within such time as shall be fixed by the Director. Once this program has been approved by the Director, the owner and/or operator of such installation shall not be in violation of this rule so long as the approved or amended program is observed. Compliance programs, schedules, and variances that have previously been issued by the Director under Series 7 (1974) shall remain in effect until the expiration date of that compliance program, schedule, or variance.

9.2. In the event that an owner or operator of such process equipment fails to submit a program or an acceptable program and schedule, the Director shall, by order, determine the compliance program and schedule.

§45-7-10. Variance.

Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director 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 malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

§45-7-11. Exemptions.

Provisions of this rule shall not apply to particulate emissions regulated by Series 2, 3, 5 and 6 or to internal combustion engines, aircraft, and air entrained particulate matter from public or private carriers.

TABLE 45-7A

Operating Source Operation or Total Duplicate Source Operation Process Weight Rate in Pounds Per Hour[1]	Maximum Allowable Total Stack Emission Rate in Pounds Per Hour For the Appropriate Process Weight and Source Operation Type[1]			
	Type 'a'	Type 'b'	Type 'c'	Type 'd'[2]
0	0	0	0	0
2,500	3	3	9	0.2
5,000	5	5	13	0.8
10,000	10	10	19	1.8
20,000	16	16	26	4.0
30,000	22	22	32	6.2
40,000	28	28	36	8.3
50,000	31	31	40	10.5
100,000	33	33	54	1.2
200,000	37	37	70	21.2
300,000	40	40	80	21.2
400,000	43	46	88	21.2
500,000	47	53	94	21.2
600,000	50	62	99	21.2
700,000	50	71	99	21.2
800,000	50	79	99	21.2
900,000	50	88	99	21.2
1,800,000 and above	50	176	99	21.2

1. For a process weight between any two consecutive process weights stated in this table, the emission limitation shall be determined by linear interpolation.

2. Type 'd' source operation stack emission rates do not apply to MINERAL ACIDS. See subsection 4.2.

TABLE 45-7B

Mineral Acid	Allowable Stack Gas Concentration in Milligrams Per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate source Operations in Existence on ~~the Effective Date of this Rule~~ July 1, 1970	Allowable Stack Gas Concentration in Milligrams per Dry Cubic Meter at Standard Conditions from Source Operations or Duplicate Source Operations Installed After ~~the Effective Date of this Rule~~ July 1, 1970
Sulfuric Acid Mist	70	35
Nitric Acid Mist and/or Vapor	140	70
Hydrochloric Acid Mist and/or Vapor	420	210
Phosphoric Acid Mist and/or Vapor	6	3

BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION

BRIEFING DOCUMENT

Rule Title: 45CSR7- "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

A. AUTHORITY: W.Va. Code §§ 22-5-1 et seq.

B. SUMMARY OF RULE:

The current version of 45CSR7 establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations in order to achieve and maintain such levels of air quality as will protect the public health and safety and the environment from the effects from excessive emissions of particulate matter from manufacturing process operations. The emergency rule establishes specific emissions performance standards for flame attenuation (pot and marble) fiberglass operations. 45CSR7 is part of the State Implementation Plan (SIP) for West Virginia and these changes are proposed as a revision to the State Implementation Plan. A counterpart permanent rule revision effecting the same amendments will be processed for SIP inclusion as well.

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

The proposed emergency rule will create specific performance standards appropriate to regulate the emissions of particulate matter from the individual stacks venting the fiber-forming zone of duplicate flame attenuation (pot and marble) fiberglass operations. Such a performance standard does not presently exist and it is not possible for the aforementioned manufacturing process to operate in compliance with the duplicate source provisions of Regulation 7. The specific performance standards established will adopt the emission limitations presently required under a state administrative consent order, CO-R&-95-7, with Johns Manville International, Inc. (the consent order was entered into by Schuller International, Inc., which has subsequently changed the corporate name to Johns Manville International, Inc.) regulating such sources. The limitations are based on the results of lengthy air quality modeling required by U.S. EPA, Region III.

D. FEDERAL COUNTERPART REGULATIONS - INCORPORATION BY REFERENCE / DETERMINATION OF STRINGENCY:

There is no direct counterpart federal regulation for such existing sources. The proposed emergency rule is source-specific to the Johns Manville International, Inc. plant in Wood County.

E. CONSTITUTIONAL TAKINGS DETERMINATION:

The Director has determined that this emergency rule will not result in taking of private property within the meaning of the Constitutions of West Virginia and the United States of America. The Director further finds that this rule is consistent with the requirements of chapter 22 article 1A of the W.Va. Code.

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

At their July 2, 1997 meeting, the Environmental Protection Advisory Council reviewed and discussed this rule - there were no substantive changes as a result of their discussion. (See attached minutes of that meeting.)

MINUTES

ENVIRONMENTAL PROTECTION ADVISORY COUNCIL

July 2, 1997 - Office of Air Quality's Conference Room

The seventh meeting of the DEP Advisory Council was held July 2, 1997 in the Office of Air Quality's Conference Room in Charleston. The meeting was called to order at 1:00 p.m. by Chairman Jack Caffrey.

Attending:

Advisory Council Members:

Jack Caffrey, Chairman
Jacqueline Hallinan
Larry Harris
Martha Moore
William Raney
Rick Roberts
William Samples

DEP:

Mark Scott	John Johnston
Cap Smith	John Benedict
Mike Dorsey	Lucy Pontiveros
Russ Hunter	Karen Watson
Ted Streit	
Gene Coccari	

Discussion:

1. Review minutes of May 5, 1997 meeting.

The minutes of the May 5 meeting were approved without amendment.

2. Review Proposed DEP Rules.

In accordance with WV Code §22-1-3(c) which requires the Director of the Division of Environmental Protection to consult with the Advisory Council members prior to proposing any new rule (or amendments to a rule), the following rules were presented to the members. Mark Scott told the Council members that if they have comments concerning the amendments to the rules they will be made part of the rule package when it is filed with Legislative Rule-Making and the Secretary of State's Office August 1. The Council members may also submit written comments to Carrie Chambers until the close of each respective public hearings. These will also be made part of the rule package when filed.

a) Office of Mining and Reclamation - 38CSR2 "Surface Mining Reclamation Rule":

Russ Hunter, Counsel for OMR, explained the proposed amendments to the Surface Mining Rule. He said the amendments mainly relate to four areas: 1) to allow for coal removal incidental to commercial development of real estate; 2) remining provisions; 3) special reclamation costs; and 4) ownership and control issues.

Gene Coccari, Manager of the Ownership and Control Unit in the Office of Mining and Reclamation, briefed Council members on amendments to that section of the rule. He explained that the proposed state rules appear to be more stringent than the interim federal rule currently in place in that the proposed rules allow DEP to link and block parent companies of permittee, which is not specifically addressed in the federal rule.

b) Office of Waste Management - 33CSR20 "Hazardous Waste Management Rule":

Mike Dorsey, Office of Waste Management, explained that the Hazardous Waste rule is updated annually to reflect changes in the federal regulations and were not substantive changes. He said there are two other amendments in the rule: 1) the appendix that currently contains a synopsis of the small quantity generator rule has been eliminated; and 2) a change in the groundwater monitoring requirements for hazardous waste permits (which is being done in conjunction with a change in the groundwater rule). Also, the rule is amended by clarifying what information is to be included in the administrative record of a permit.

In response to a question by Bill Raney, Mike explained that the proposed rule differs from existing federal requirements in three ways: 1) We require all generators of hazardous waste to notify of their activity, EPA does not require conditionally-exempt small quantity generators (CESQGS) to notify; 2) The EPA regulations say that CESQGS can put their wastes into municipal landfills if they are permitted to accept that waste. West Virginia's Solid Waste rule states that no hazardous waste may go into the state's landfills; therefore, none are permitted to accept the waste; and 3) In the permitting requirements, we have given the chief of Waste Management greater latitude in deciding what sampling parameters must be utilized and what frequently may be required at permitted facilities than the federal rule.

c) Office of Oil and Gas: 35CSR1 "Miscellaneous Water Pollution Control Rule"; 35CSR2 "Oil and Gas Operations - Solid Waste Rule"; 35CSR3 "Coalbed Methane Wells Rule"; 35CSR4 "Oil and

Gas Wells and Other Wells Rule"; 35CSR5 "Designation of Future Use and Inactive Status for Oil and Gas Wells Rule"; and 35CSR6 "Abandoned Wells Rule":

Ted Streit, Chief of the Office of Oil and Gas, stated that Series 1 through 6 of the Oil and Gas rules were not part of DEP's 1997 Technical Cleanup Bill. Therefore, they are being filed this session to update code references, provisions that are contrary to current law, office, names, titles, punctuation, etc. There are no substantive changes to these rules.

Ted said two additional oil and gas rules - 38CSR16 "Certification of Gas Wells" and 38CSR14 "Dam Safety" are being repealed. 38CSR16 is being repealed because the underlying state and federal statute that required the agency to classify the wells no longer exists, and 38CSR14 is being repealed and a comparable rule in the Office of Water Resources (47CSR34 - "Dam Safety") enforces dam safety.

d) Office of Air Quality - 45CSR25 "To Prevent and Control Air Pollution From Hazardous Waste Treatment, Storage or Disposal Facilities"; 45CSR33 "Acid Rain Provisions and Permits"; 45CSR44 "Emission Standards for Hazardous Air Pollutants Pursuant to 40 CFR Part 63"; 45CSR23 "To Prevent and Control Emissions From Municipal Solid Waste Landfills"; and 45CSR7 "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations:"

John Johnston, Chief of the Office of Air Quality, presented Air Quality's proposed rule amendments to the Council. He stated that 45CSR25, 45CSR33, and 45CSR34 were amended to incorporate by reference federal requirements that are necessary to keep the program up to date under Title 5, and that they do not contain any substantive changes.

John said the proposed new rule, 45CSR23 "To Prevent and Control Emissions from Municipal Solid Waste Landfills" will establish standards of performance and emission guidelines for municipal solid waste landfills. The standards will require facilities with municipal solid waste landfill emissions exceeding approximately 55 tons per year to install an air pollution control system within 2.5 years. These standards will also be adopted by reference. The advisory council inquired about the stringency of the rule, the difference between non-municipal and municipal solid wastes, and if the rule will impact landfills that are closed.

John said the agency filed 45CSR7 - "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations" as an emergency rule on June 27 as authorized in HB 2333. This emergency rule will establish specific emissions performance

standards for pot and marble fiberglass operations, and will only affect one existing fiberglass production facility located in Vienna, Wood County. A counterpart, permanent rule effecting the same amendment, has also been filed.

After discussion of OAQ's rules, John Johnston asked John Benedict, Assistant OAQ Chief, to discuss the ongoing Ozone Transport Assessment Group (OTAG) issue and the outcome of meetings with EPA and other affected states.

The Council members inquired about the non-attainment situation in the Weirton area (and other areas in West Virginia). John Benedict briefly discussed the current status of that situation and the possible EPA-imposed sanctions within one year if West Virginia's SO^{2} and PM^{10} SIP are deficient.

The Council members were then briefed by Earl Billingsley of the Air Quality Office on the application by Virginia Power for an opacity variance at their Mt. Storm Power plant.

3) Consideration of issues raised at May 5, 1997 meeting.

(1) Mr. Caffrey informed the Council that DEP will hold a training session for DEP staff on how to more effectively work with the Legislature.

(2) Mark explained that the list of policies and procedures requested by the Council members is in the process of being completed. He distributed a list of policies compiled to date. After a brief discussion, Council requested that Mark provide a list of DEP policies and procedures, the title, effective date, policy number, and the name of DEP's office contact for the Council's review.

(3) Mark updated the Council members on the pay equity issue raised in the last meeting and informed them that DEP's EEO coordinator would be undertaking a more detailed study later this year to clarify if DEP has a problem in this area.

(4) The Council members expressed concern over the TMDL issue and why there was such a change in the ranking of streams between the 1994 and 1996 303(d) lists provided to EPA. Council requested an update on this issue at a future meeting.

4) The following issues were discussed for upcoming meetings:

(1) Regulation of the timbering industry - Mark Scott suggested that Bill Maxey, Director of the Division of Forestry, be invited to attend a future Council meeting to discuss this issue;

(2) The Legislative agenda for the 1998 Session;

(3) Presentation by DEP's Manager of Information Services on DEP's one-stop grant and our vision of future computer capabilities;

(4) Acid mine drainage;

(5) Valley fills and mountain top removal practices at mining operations;

(6) Industry's concerns about the Office of Oil and Gas as a regulatory agency;

(7) Status of the Elkins landfill;

(8) Corps of Engineers nationwide permits and conditions required by DEP in those permits;

(9) An update of the Volunteer Remediation and Development program;

(10) Regulation of chicken waste in the poultry industry in the eastern panhandle;

(11) DEP's proposed consolidated building; and

(12) Status of the coal mining mitigation, including council consideration of supporting studies funded by DEP's mitigation fund.

A brief discussion was held concerning date and place of the next Council meeting. Bill Raney suggested incorporating the next meeting with the national AML Conference scheduled at Canaan Valley August 17-20.

The meeting concluded at 4:30 p.m.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: 45CSR7- "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

Type of Rule: __X__ Legislative ____ Interpretive ____ Procedural

Agency: Office of Air Quality

Address: 1558 Washington Street, East

Charleston, WV 25311-2599

1.

I. Effect of Proposed Rule	Annual		Fiscal Year		
	Increase	Decrease	Current	Next	There-after
Estimated Total Cost	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-
Personal Services	-0-	-0-	-0-	-0-	-0-
Current Expense	-0-	-0-	-0-	-0-	-0-
Repairs and Alterations	-0-	-0-	-0-	-0-	-0-
Equipment	-0-	-0-	-0-	-0-	-0-
Other	-0-	-0-	-0-	-0-	-0-

2. Explanation of above estimates: The above estimates reflect that there will be no anticipated changes in costs to administer this emergency rule.

3. Objectives of these rules: The emergency rule is sought to create a performance standard for a flame attenuation (pot and marble) fiberglass manufacturing operation in Wood County based on limitations required in a state administrative consent order. The proposed emergency rule will permit this type of manufacturing process to operate in compliance with Regulation 7 which is presently not possible because of the duplicate source provisions of this regulation. The proposed emergency rule will remain in effect for the statutory 15 month period or until a permanent rule revision obviates the need for such emergency rule.

The performance standard created by this emergency rule will protect the public health and safety and the environment from the effects of excessive emissions of particulate matter from this manufacturing process.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

Please see section 2.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of Citizens.

No impact above that resulting from the currently applicable administrative consent order affecting the relevant manufacturing process.

C. Economic Impact on Citizens/Public at Large.

No impact above that resulting from the currently applicable administrative consent order affecting the relevant manufacturing process.

Date: June 27, 1997

Signature of Agency Head or Authorized Representative

John H. Johnston
Chief, Office of Air Quality

CECIL H. UNDERWOOD
GOVERNOR

DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

JOHN E. CAFFREY
DIRECTOR

JOHN H. JOHNSTON, CHIEF

July 11, 1997

Honorable Mike Ross, Co-Chair
Legislative Rule-Making Review Committee
Room MB47 - State Capitol
Charleston, WV 25305

Honorable Mark Hunt, Co-Chair
Legislative Rule-Making Review Committee
Room MB47 - State Capitol
Charleston, WV 25305

Re: Legislative Revisions to 45 CSR 7 - "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

Dear Gentlemen:

This letter serves as a request by the Division of Environmental Protection's Office of Air Quality ("OAQ") of the Legislative Rule- Making Review Committee to take up for consideration revisions to Regulation 7 during the 1998 Regular Session and to explain why the final agency-approved rule will not be submitted until a few days after August 1, 1997. The revisions would establish specific performance standards for the production lines collection stacks at the Johns Manville International, Inc. (formerly Schuller International, Inc.) (hereinafter "JM") plant located in Vienna, Wood County, West Virginia. These specific performance standards are in lieu of the "duplicate source" provisions of Regulation 7. That provision imposes increasingly more stringent emission limits on plants that have multiple units

which perform the same function. While this rule provision is suitable in most circumstances, there appears to be no traditional control measure that is economically or technically feasible for the unique fiberglass operations at the Vienna facility. JM has requested these specific performance standards be adopted in order to come fully into compliance with Regulation 7. The plant employs over 200 people in Wood County. The chronology of events below explain why this rule will not be filed prior to the August 1, 1997 deadline for the 1998 Legislative Session.

As you may recall, the Committee was approached to consider revisions to Regulation 7 during the 1997 Legislative Session. It was not possible to comply with the normal deadline for rule-making submissions last year due to additional air quality modeling that JM was conducting at the request of the United States Environmental Protection Agency ("EPA") Region III. The public hearing was not held until March 27, 1997. Since 1995, JM has been operating under a Consent Order with the OAQ. The terms of the Consent Order were the product of lengthy negotiations and extensive modeling and research on the part of JM. During the 30- day notice and comment period on the proposed regulatory revisions and prior to the public hearing, three letters in support of the revisions were filed with the OAQ (one from JM, and two from legislators). In the hour just prior to the start of the public hearing, EPA Region III facsimilied four pages of comments to the OAQ on the proposed revisions. Resolution of the concerns raised by EPA Region III could not be achieved prior to the end of the 1997 Legislative Session. However, the Legislature did authorize in H.B. 2333 the filing of an emergency rule amending Regulation 7 to address the plant limits.

Throughout much of April and May of 1997, OAQ, EPA Region III and JM continued to work together to address the concerns EPA raised on March 27, 1997. JM has conducted additional modeling and research. This additional modeling and research, although conducted on an expedited basis, delayed the filing of the rule. An additional complicating factor was publishing a timely legal notice in order to comply with the statutory 30-day notice and comment period and setting another public hearing on the emergency/legislative rule as required by law. Although the rule was filed on June 27, 1997, it was not possible to set the public hearing date until August 4 in order to allow a 30-day notice of the hearing from the time of the legal ad publication.

Consequently, we are informing you of these extenuating circumstances that require us to ask that you accept the to-be-filed proposed revisions to Regulation 7, even though the agency approved rule will not to be presented to the Legislative Rule-Making Review Committee until the second week in August. The notice of the upcoming public hearing on the proposed revisions appeared in the Charleston Gazette Wednesday, July 2, 1997, and set the public hearing for August 4, 1997. The written comment period is held open for an additional two days or until August 6, 1997.

The rule filed on June 27, 1997, contains additional language based on the Consent Order that allows limited operational flexibility to the company to "trade" certain finite emissions among the lines so long as an overall "cap" on the limits is always met, too. It is our intention to process any comments we may receive as expeditiously as possible and submit the approved rule as soon as possible after August 6, 1997. We have been working diligently with EPA Region III and JM to ensure that the proposed revisions establish performance standards that protect the public health and safety and the environment from the effects of particulate matter emissions appropriate to this plant and its location.

Please do not hesitate to call me with any questions you have regarding the proposed revisions or the circumstances that make it necessary to file these revisions after August 1, 1997. The emergency rule will endure at most for 15 months, so it is important that a final rule be authorized during the 1998 Regular Session.

Thank you for your time and consideration.

Very truly yours,

John H. Johnston
Chief, Office of Air Quality

JHJ/lmw

cc: Joe Altizer, Esquire
John E. Caffrey, Director

NOTICE OF PUBLIC HEARING
PUBLIC COMMENT PERIOD

On Monday, August 4, 1997 beginning at 5:00 p.m., the West Virginia Division of Environmental Protection, Office of Air Quality, will hold a public hearing on an emergency/ legislative rule which revises limited sections of 45CSR7 "To Prevent and Control Particulate Air Pollution From Manufacturing Process Equipment". The current version of 45CSR7 establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emissions performance standards for the flame attenuation (pot and marble) fiberglass manufacturing operations. The proposed emergency/ legislative rule will create specific performance standards appropriate to control the emission of particulate matter from the individual stacks venting the fiber-forming zone of duplicate flame attenuation (pot and marble) fiberglass operations that were in existence prior to June 01, 1993. The emergency rule provisions are associated with the proposed rule revisions which were the subject matter of a public hearing on March 27, 1997. The rule has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Johns Manville International, Inc., and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

Upon authorization and promulgation of revisions to 45CSR7, the Office of Air Quality will seek federal approval of the rule change by the U.S. Environmental Protection Agency for inclusion in the State Implementation Plan for the Federal Clean Air Act.

The hearing will be held in the Office of Air Quality's Conference Room located at 1558 Washington Street, East, Charleston, West Virginia. The hearing is open to the public. Written and oral comments by the public will be accepted during the hearing on August 4th and will be made a part of the rulemaking record. The public may also submit written comments by mail or other delivery to the Office of Air Quality if filed with the agency by 5:00 p.m. August 6, 1997, for inclusion in the rulemaking record at the following address:

John H. Johnston, Chief
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311-2599

A copy of the emergency rule will be available for public review at the Office of Air Quality's Charleston office.

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07/02	LEGF	DM	PART AIR POLL 441581001	L371129	1X0750 7.50	6.19	46.42	92.84
			TOTAL INVOICE AMOUNT					92.84

State of West Virginia,

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STATE OF WEST VIRGINIA
LYNN R. FIELDER
3245 PUTNAM AVE.
HURRICANE, WV 25526
My Commission Expires December 11, 2006

I, Sandra Ligon of THE CHARLESTON GAZETTE, A DAILY DEMOCRATIC NEWSPAPER, THE DAILY MAIL, A DAILY REPUBLICAN NEWSPAPER, published in the city of Charleston, Kanawha County, West Virginia, do solemnly swear that the annexed notice of:
PART AIR POLL
was duly published in said paper(s) during the dates listed below, and was posted at the front door of the court house of said Kanawha County, West Virginia, on the 3RD day of JULY 1997. Published during the following dates: 07/02/97-07/02/97
Subscribed and sworn to before me this 3 day of July
Printers fee $ 92.84

Notary Public of Kanawha County, West Virginia

NOTICE OF PUBLIC HEARING PUBLIC COMMENT PERIOD

On August 4, 1997, beginning at 5:00 p.m., the West Virginia Division of Environmental Protection, Office of Air Quality, will hold a public hearing on an emergency/legislative rule which revises limited sections of 45CSR7 "To Prevent and Control Particulate Air Pollution From Manufacturing Process Equipment". The current version of 45CSR7 establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emissions performance standards for the flame attenuation (pot and marble) fiberglass manufacturing operations. The proposed emergency/legislative rule will create specific performance standards appropriate to control the emission of particulate matter from the individual stacks venting the fiberforming zone of duplicate flame attenuation (pot and marble) fiberglass operations that were in existence prior to June 01, 1993. The emergency rule provisions are associated with the proposed rule revisions which were the subject matter of a public hearing on March 27, 1997. The rule has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Johns Manville International, Inc., and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

Upon authorization and promulgation of revisions to 45CSR7, the Office of Air Quality will seek federal approval of the rule change by the U.S. Environmental Protection Agency for inclusion in the State Implementation Plan for the Federal Clean Air Act.

The hearing will be held in the Office of Air Quality's Conference Room located at 1558 Washington Street, East, Charleston, West Virginia. The hearing is open to the public. Written and oral comments by the public will be accepted during the hearing on August 4th and will be made a part of the rulemaking record. The public may also submit written comments by mail or other delivery to the Office of Air Quality of filed with the agency by 5:00 p.m. August 6, 1997 for inclusion in the rulemaking record at the following address:

John H. Johnston, Chief
Office of Air Quality
1558 Washington Street, E.
Charleston, WV 25311-2599

A copy of the emergency rule will be available for public review at the Office of Air Quality's Charleston office.
(371129)

... conform to specification, were ...
07-07-97 ... D. Sitton
... #: | ... | ... NAME
SCO #:
... # 4 | 560-676-079 | ... Date
... 50787

FIMS FUND	...	FIMS ORG	FIMS ACT	FIMS OBJ CODE	OFF/FC/PC
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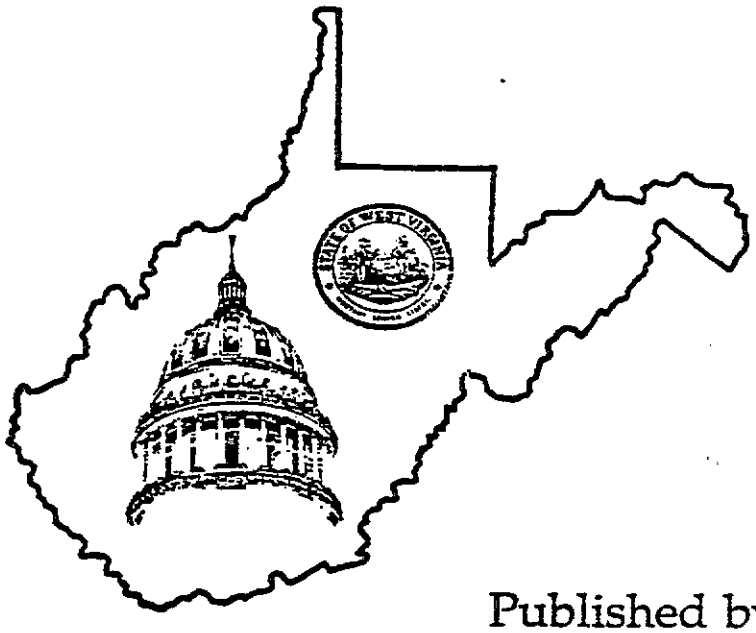

WEST VIRGINIA REGISTER

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CONTENTS

LEGISLATIVE

WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

FORM #1

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF PUBLIC HEARING ON A PROPOSED RULE

AGENCY: Division of Environmental Protection, Office of Air Quality TITLE NUMBER: 45
RULE TYPE: Legislative/Emergency Rule ; CITE AUTHORITY W.Va. Code §§22-5-1 et seq. and §29A-3-15
AMENDMENT TO AN EXISTING RULE: YES X NO
IF YES, SERIES NUMBER OF RULE BEING AMENDED: 7
TITLE OF RULE BEING AMENDED: "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"
IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED:
TITLE OF RULE BEING PROPOSED:

DATE OF PUBLIC HEARING: August 4, 1997 TIME: 5:00 p.m.

LOCATION OF PUBLIC HEARING: Office of Air Quality
1558 Washington Street, East
Charleston, West Virginia 25311

COMMENTS LIMITED TO: ORAL ____, WRITTEN ____, BOTH X
COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS: John H. Johnston, Chief
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A BRIEF SUMMARY OF YOUR PROPOSAL

Authorized Signature

WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

rm #6

Do Not Mark In this Box
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JUN 27 2 40 PM '97
OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AGENCY: Division of Environmental Protection Office of Air Quality TITLE NUMBER: 45
AMENDMENT TO AN EXISTING RULE: YES ___, NO X
IF YES, SERIES NUMBER OF RULE BEING AMENDED:
TITLE OF RULE BEING AMENDED:
IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: 45CSR31
TITLE OF RULE BEING PROPOSED: "Confidential Information"

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.
AUTHORIZATION IS CITED IN (house or senate bill number) H.B. 2333
SECTION 64-3-1(g), PASSED ON April 12, 1997
THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE FOLLOWING DATE: September 25, 1997

John H. Johnston, Chief

DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

CECIL H. UNDERWOOD
GOVERNOR

JOHN E. CAFFREY
DIRECTOR

JOHN H. JOHNSTON, CHIEF

July 1, 1997

Ms. Judy Katz, Acting Director
Air Protection Division
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107-4431

Dear Ms. Katz:

I am hereby submitting for EPA's review and comment proposed Legislative/Emergency Rule 45CSR7 - "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations" and associated technical support documents. Emergency Rule 45CSR7 will be submitted to EPA as a revision to the State Implementation Plan (SIP) following approval by the WV Secretary of State expected within the 42-day statutory review process. Upon promulgation as a Legislative Rule, 45CSR7 will be submitted to EPA to replace the Emergency Rule. The public hearing will be held on August 4, 1997 with the comment period closing at 5:00 p.m. on August 6, 1997.

If you have any questions or comments, please feel free to contact me at (304) 558-0430.

Sincerely,

John A. Benedict,
Assistant Chief

cc: John Johnston, Chief
Office of Air Quality

Enclosures

PERMITTING & PROGRAMS
1558 Washington Street East, Charleston, WV 25311-2599 Phone: (304) 558-0885 Fax: (304) 558-1222

WV Office of Air Quality

Technical Rational Document in support of the Revision to the State Implementation Plan for Rule 45CSR7

BACKGROUND

Johns Manville International, Inc. (formally Schuller International, Inc.) operates a fiber glass manufacturing facility (facility) located in Vienna near Parkersburg, West Virginia. The facility manufactures top liners, specialty high performance insulation, and filtration media. Johns Manville has previously concluded and demonstrated to West Virginia Office of Air Quality (WVOAQ) that 45CSR7 is not appropriate for Manville's unique, high airflow, low concentration, and low input weight PM_{10} emissions sources. Emissions of particulate matter from individual stacks venting the fiber-forming zone of duplicate flame attenuation (pot and marble) fiberglass operations at the facility cannot meet the duplicate source provisions of 45CSR7 based on stack test data and other information supplied by Manville. Manville has pursued research and development, abatement equipment, techniques and methodologies, and employed those which are both economically achievable and technically feasible to reduce particulate matter emissions for these sources in its efforts to comply with the duplicate source emission limits.

In lieu of the current Rule 45CSR7 duplicate emission limits for flame attenuated fiber glass processes, Manville proposed to performed an analysis and justification for "process-specific" emission limits. The proposed emission limitations are now a part of a consent order which was negotiated between Schuller International (now Manville) and the WVOAQ (dated March 6, 1995). This order also specified that an air quality modeling study, encompassing a region affected by Manville emissions, would be performed to demonstrate that these revised emission limits will comply with the PM_{10} National Ambient Air Quality Standards (NAAQS). The WVOAQ has reviewed this modeling analysis and concludes that the analysis follows State and USEPA modeling guidance and policies. The modeling analysis also demonstrates that the revised emission limits incorporated in proposed Rule 45CSR7 do not violate the PM10 NAAQS.

MODELING ANALYSIS

Stack Parameters and Emission Rates:

An inventory of Manville emissions and model input parameters were developed to

complete the modeling study. A total of 23 Manville facility emission sources (stacks) were considered. Proposed PM_{10} emissions estimates for the fiber glass forming lines are based on the emission limits which are stated in the Consent Order.

Manville modeling source parameters, including stack height, gas flow rate, gas exit velocity, gas temperature, diameter, and source operating hours are listed Manville's modeling document. The current and proposed PM_{10} emission rates in grams per second (g/sec) were provided. The emission rates were based upon maximum allowable emissions currently permitted or proposed under the revision to 45CSR7. Modeled stack heights are meters above the facility's grade elevation. The facility grade elevation was estimated to be 634 feet above M.S.L.

An inventory of regional TSP emissions and model input parameters was developed to complete the modeling study. The list of regional facilities was refined using a modified North Carolina Protocol screening approach for sources outside of the ZOI. The distance to the edge of the ZOI was estimated from modeling to be about 34.5 km. Then, an initial master list of regional source emissions and modeling parameters was developed. Emissions data and model source input parameters were obtained for individual emissions sources at each regional facility. This list was refined using the SCREEN3 model and adjustment of particulate emissions for the fraction that is PM_{10}. Regional facilities having allowable annual emissions Q (in tons per year) greater than or equal to 10*D, where D is the distance in kilometers from the regional facility to the Manville facility for short-term analyses and to the edge of the ZOI for long-term analyses, were eliminated from further consideration in the modeling study. This approach was not applicable to sources within Manville's ZOI.

For regional facilities included in the analysis after use of the modified North Carolina Protocol screening approach, a source-level inventory of particulate emissions and modeling source parameters was developed. The regional inventory contained 462 sources. Source-level screening analysis was completed using the SCREEN3 model for each individual source within the ZOI. Regional sources were included in the study if impacts above significance levels (greater than or equal to 5.0 $\mu g/m^3$ for the 24-hour averaging period, or 1.0 $\mu g/m^3$ for the annual averaging period) were estimated. For selected sources, particulate emissions were adjusted for the fraction that is PM_{10} using factors available from USEPA's *Compilation of Air Pollutant Emission Factors* (AP-42) (USEPA, 1995b) or the California Air Resources Board (CARB, 1992). Then, SCREEN3 was run again with PM_{10} emission rates for the selected sources. The final list of regional sources included in the modeling study, represents 26 regional facilities and 91 sources.

Building downwash occurs when air flows over and around structures, thus changing the magnitude of downwind impacts from emissions sources located near the structures. A building downwash analysis was completed for the Manville facility and selected regional emissions sources within the ZOI. The analysis was conducted in accordance with USEPA guidance for "Good Engineering Practice (GEP)" stack height determinations (USEPA, 1995a).

The ISCST model requires direction-specific building dimensions (DSBDs) to be input for each stack. The DSBDs are selected for each of 36 wind directions. For this study, DSBDs were calculated using the Building Profile Input Program (BPIP Version 95086). Dimensions of buildings as well as stack locations and heights were input to the BPIP program. The DSBDs calculated by BPIP for each Manville source were input to dispersion modeling runs.

Building downwash analyses were performed for regional sources if all of the following were true: 1) sources are stacks located inside the Manville ZOI, 2) annual allowable emissions from the facility are greater than or equal to 10 TPY and, 3) stack heights do not exceed GEP stack height (2.5 times the lesser of the projected height or width of the influencing structure). For regional sources meeting the criteria, BPIP was run to obtain DSBDs for input to dispersion modeling runs.

Meteorological Data:

Pre-processed surface meteorological data (hourly wind directions, wind speeds, temperatures, and atmospheric stability parameters) and upper air data (mixing heights) are required as input to ISCST3. On-site meteorological monitoring was conducted for one year, April 1, 1995 to March 31, 1996, to obtain data at three tower levels; 2, 10 and 30 meters. The variables obtained included wind direction, wind speed, temperature, horizontal deviation of wind direction, vertical deviation of wind speed, temperature difference, and solar radiation. Mixing height data for the concurrent period were obtained for the Huntington, West Virginia (Station #03860) and Blacksburg, Virginia (Station #53829) sites from the National Climatic Data Center. The mixing height data were processed with surface temperature data from the same station where upper air soundings were obtained. Use of Blacksburg data was necessary because the Huntington station closed in early November 1995.

For the modeling study, 10-meter data was used. This height best represents the sources which were included into the final modeling study. The 10-meter data set was pre-processed for dispersion modeling using the Meteorological Processor for Regulatory Models (MPRM Version 96030) following guidance provided in *On-Site Meteorological Program Guidance for Regulatory Modeling Applications* (USEPA, 1987b). Although surface and upper air meteorological data sets were initially greater than 90% complete, some missing data existed. Missing data were filled using guidance provided by USEPA (USEPA, 1992c). To fill mixing height data for multiple missing days, seasonal average data on charts referenced in *Mixing Heights, Wind Speeds and Potential for Urban Air Pollution Throughout the Contiguous United States* (Holtzworth, 1992) were also used.

Following current USEPA guidance, Pasquill-Gifford stability parameters were estimated using MPRM and the solar radiation-delta temperature (SRDT) method. The threshold wind speed for calm winds was set to 0.5 m/sec, which is the instrument response threshold recommended by USEPA (USEPA, 1987b). Therefore, all hours with wind speeds less than 0.5 m/sec were assigned as calm wind hours.

Receptor Grid:

The final modeling receptor grid consisted of 1,987 receptor locations on a combination of four separate sub-grids with varying receptor density. For the first sub-grid, receptors were placed at 100 meter intervals along the Manville property line, and 50 meter or 100 meter intervals over a one kilometer by one kilometer area surrounding the facility. Receptors were placed at 250 meter intervals beyond that range out to 1.5 kilometers from the facility. Beyond the three kilometer range, receptors were placed at 1,000 meter intervals to about 15 kilometers from Manville. Finally, from the 15 kilometer range, receptors were placed at 2 kilometer spacing out to the edge of the ZOI (34.5 kilometers). Discrete receptors were also placed at the location of hilltops near the Manville facility and at the location of background PM_{10} monitors. Also, additional receptors were placed around the facility in areas of maximum impact.

Model Selection:

Dispersion modeling was completed using the Industrial Source Complex- Short Term version 3 (ISCST3) dispersion model and one year of meteorological data obtained from a 10-meter tower for a grid of receptor locations within the Manville ZOI. The model includes COMPLEX-I model algorithms for estimating impacts at complex terrain receptors. The influence of buildings, or building downwash, was considered for Manville emission sources and regional emissions sources within the ZOI. As stated in the approved Modeling Protocol, the effect of building downwash was not considered for regional facilities with annual emissions less than 10 tons per year. For each receptor location, the highest 2nd-high 24-hour average and annual average PM_{10} concentrations were estimated.

Background Concentration:

The most recent available four years (1992-1995) of complete particulate monitoring data for the Parkersburg, Vienna, and Gifford State Forest sites were obtained from the Ohio EPA and WVOAQ. Data were logged every six days. For each day monitoring occurred, the minimum 24-hour average TSP or PM_{10} value from the three monitors was selected as representative of background PM_{10} for the day. Data were missing at some sites on some of the monitoring days. For days on which data from Gifford State Forest were missing, this comparison was not made. The reason being the industrial sources are more likely to impact the Vienna and Parkersburg sites than the Gifford State Forest site. Then, following USEPA's *PM_{10} SIP Development Guidelines,* (USEPA, 1986) the fifth highest 24-hour average value for each year was selected. The highest fifth-high 24-hour average value over the four years, 41 $\mu g/m^3$, was selected as the representative background 24-hour average PM_{10} concentration.

To obtain the background annual average PM_{10} concentration for this study, an annual arithmetic mean TSP or PM_{10} concentration for each site and year was obtained from the SLAMS/NAMS monitoring reports. Then, for each year, the minimum value from the three sites was chosen. Finally, the four minimum values were averaged to obtain the representative background annual average PM_{10} concentration of 20.8 $\mu g/m^3$.

Results:

Modeling was completed to demonstrate that, under the proposed revision to Rule 45CSR7, Manville emission sources and other modeled sources will neither cause nor contribute to an exceedance of the PM_{10} NAAQS. The highest estimated 2nd-high 24-hour average PM_{10} concentration is 144 $\mu g/m^3$, occurring at receptor number 434 (UTM 442,500E, 4,348,500N). This value does not exceed the 24-hour PM_{10} NAAQS of 150 $\mu g/m^3$. The highest estimated annual average PM_{10} concentration is 42.7 $\mu g/m^3$, occurring at receptor number 408 (UTM 441,500E, 4,344,500N). This value does not exceed the annual arithmetic PM_{10} NAAQS of 50$\mu g/m^3$.

DEP Division of Environmental Protection

Public Hearing for Proposed Legislative Rule/Emergency Rule 45CSR7

Sign-In

Aug. 4, 1997

Name (please print)	Address
1. James D. Elliott	Robinson & McElwee
2. Jeffrey A. Tarcle	Johns Manville 10100 W. Ute Ave, Littleton, CO 80127
3. Richard Quaranta	Johns Manville 2905 3rd Ave Vienna, WV
4. Roger Snow	" " " " " " "
5. Bruce Ray	
6. John Benedict	DEP/OAQ Charleston, WV
7.	
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BEFORE THE WEST VIRGINIA DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

ORIGINAL

In the matter of:

PUBLIC HEARING ON PROPOSED LEGISLATIVE RULE/EMERGENCY RULE

45 CSR 7 "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations"

Transcript of proceedings had at a public hearing in the above-styled matter taken by Paula J. Moore, Certified Court Reporter and Notary Public, at the West Virginia Division of Environmental Protection, Office of Air Quality, Conference Room, 1558 Washington Street, East, Charleston, West Virginia, 25305, commencing at 5:07 p.m. and concluding at 5:13 p.m., on the 4th day of August 1997, pursuant to notice.

APPEARANCES: James D. Elliott, Robinson & McElwee

Jeffrey A. Tarde, Johns Manville
Richard Quaranta, Johns Manville
Roger Snow, Johns Manville
Bruce Ray, Johns Manville

John Benedict, WV Department of
Environmental Protection
Office of Air Quality

A T T A C H M E N T S

Statement of Roger Snow, Johns Manville International, Inc., dated August 4, 1997

Letter from Johns Manville International, Jeffrey A. Tarde, dated August 1, 1997

Letter from International Brotherhood of Electrical Workers, James M. Ross, dated August 1, 1997

Letter from West Virginia Manufacturers Association, Robert L. Foster, dated July 29, 1997

Letter from United States Environmental Protection Agency, Region III, Judith Katz, dated July 22, 1997

P R O C E E D I N G S

MS. CHANDLER: This public hearing will now come to order on the 4th day of August, 1997, in the conference room of the West Virginia Division of Environmental Protection, Office of Air Quality, located at 1558 Washington Street, East, Charleston, West Virginia.

The purpose of the public hearing is to hear discussions on the emergency legislative rule which revises limited sections of 45 CSR 7, "To Prevent and Control Particulate Air Pollution from Manufacturing Process Equipment," filed in the Secretary of State's Office on June 30, 1997 and noticed in the State Register on July 3, 1997. This public hearing is being held pursuant to the provisions of 29A of the West Virginia Code and Section 110 of the Clean Air Act.

My name is Jeanne Chandler. I'm with the Public Information Office from the West Virginia Division of Environmental Protection.

For those of you wishing to make formal comments, a sign-up sheet is available and also an attendance sheet. Please sign in if you didn't. The comment period will end at the 5:00 p.m. on August 6th.

The court reporter is Paula J. Moore, who is with Q & A Court Reporters. If anyone desires a transcript of this proceeding, please contact Ms. Moore at 937-2555.

The public hearing tonight is for the Proposed Legislative Rule/Emergency Rule 45 CSR 7 and a revision to the State Implementation Plan. The current version of 45 CSR 7, "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations," establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emission performance standards for pot and marble fiberglass manufacturing operations.

The proposed rule changes will create source-specific performance standards appropriate to control the emission of particulate matter from individual stacks venting the fiber-forming collection chambers of duplicate flame attenuation, pot and marble, fiberglass operations that were in existence prior to June 1, 1993. The emergency rule revisions are so stated with the proposed rule revisions, which were the subject matter of a public hearing on March 27, 1997.

The rule revision has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Johns Manville International, Incorporated, formerly Schuller International, Incorporated, and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

The West Virginia Legislature authorized in House Bill 2333 the filing of an emergency rule amending Regulation 7 to specifically address the revised emission limits for the fiberglass facility.

The notice of the public hearing on the proposed revisions appeared in the Charleston Gazette on Wednesday, July 2, 1997 and set the public hearing for August 4, 1997. The written comment period will be held open for an additional two days or until August 6, 1997. The approved Emergency Rule and, at a later date, the promulgated revised Legislative Rule 45 CSR 7 will be submitted to the U. S. Environmental Protection Agency as a revision to the State Implementation Plan under the federal Clean Air Act.

The OAQ received written comments from the West Virginia Manufacturers Association, dated July 29,

1997, and USEPA Region III, dated July 17, 1997, plus additional comments that we've received this evening. The West Virginia Manufacturers Association generally supported the revisions to the Rule. EPA, on the other hand, identified several deficiencies primarily focusing on the air quality modeling demonstration for the SIP revision. EPA believes these issues must be resolved before the Rule can be approved as a SIP revision.

Although telephone conference calls were held on July 31st and August 1st involving the Office of Air Quality, EPA and Johns Manville in an attempt to resolve the deficiencies, several issues remain unresolved. The OAQ will continue to work with EPA and Johns Manville to resolve the remaining deficiencies.

Copies of all comments are available for those who wish copies. Everything is available here on the table.

Also available is a document titled, "Particulate Emission Justification for a Process-Specific Standard," developed by Johns Manville in support of the SIP revision.

There's additional comments that's available here. Rather than to read it, we're just going

to make it part of the record. If there's any additional comments that people would like to make -- Mr. Snow, I know you indicated you'd like to make a comment.

MR. SNOW: No, other than the fact that I would like to enter and submit the written statement as prepared here dated August 4th in lieu of oral comments at this point in time.

MS. CHANDLER: For the record, that's Ron Snow with Johns --

MR. SNOW: Roger Snow, and I'm the plant manager at the Parkersburg, West Virginia plant.

MS. CHANDLER: Thank you. Is there any additional comment?

(No response.)

MS. CHANDLER: If there is no additional comment, this public hearing for 45 CSR 7 is now closed.

(WHEREUPON, the public hearing was concluded at 5:13 p.m.)

BEFORE THE WEST VIRGINIA DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

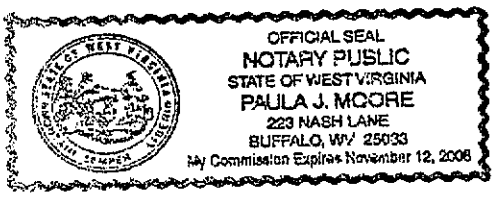
STATE OF WEST VIRGINIA,

COUNTY OF PUTNAM, to-wit:

I, the undersigned, Paula, J. Moore, a Certified Court Reporter and Notary Public within and for the State of West Virginia, duly commissioned and qualified, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings had in the aforementioned matter.

Given under my hand and official seal this 6th day of August 1997.

Paula J. Moore
Certified Court Reporter
Notary Public



My commission expires November 12, 2006.

Public Hearing
for
Proposed Legislative Rule/Emergency Rule 45CSR7
and a
Revision to the State Implementation Plan
August 4, 1997

The current version of 45CSR7 - ***"To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations"***, establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emission performance standards for pot and marble fiberglass manufacturing operations. The proposed rule changes will create source-specific performance standards appropriate to control the emission of particulate matter from individual stacks venting the fiber-forming collection chambers of duplicate flame attenuation (pot and marble) fiberglass operations that were in existence prior to June 1, 1993. The rule revision has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Johns Manville International, Inc. (formally Schuller International, Inc.) and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

The WV Legislature authorized in House Bill 2333 the filing of an emergency rule amending Regulation 7 to specifically address the revised emission limits for the fiberglass facility.

The notice of the public hearing on the proposed revisions appeared in the Charleston Gazette Wednesday, July 2, 1997, and set the public hearing for August 4, 1997. The written comment period will be held open for an additional two days or until August 6, 1997. The approved Emergency Rule and, at a later date, the promulgated revised Legislative Rule 45CSR7 will be submitted to the U.S. Environmental Protection Agency as a revision to the State Implementation Plan (SIP) under the federal Clean Air Act.

The OAQ received written comments from the WV Manufacturers Association, dated July 29, 1997 and EPA Region 3, dated July 17, 1997. The WVMA generally supported the revisions to the Rule. EPA, on the other hand, identified several deficiencies primarily focusing

on the air quality modeling demonstration for the SIP revision. EPA believes these issues must be resolved before the Rule can be approved as a SIP revision. Although telephone conference calls were held on July 31 and August 1 involving the OAQ, EPA and Johns Manville in an attempt to resolve the deficiencies, several issues remain unresolved. The OAQ will continue to work with EPA and Johns Manville to resolve the remaining deficiencies.

Copies of all comments are available for those who wish copies. Also available is a document titled *"Particulate Emissions Justification for a Process Specific Standard"* developed by Johns Manville in support of the SIP revision.

****

Regulation 7, initially promulgated in the early 1970's, establishes particulate emission standards for a diverse variety of manufacturing process operations. The regulation affects small process operations such as spray painting booths to large process operations associated with steel production such as coke oven batteries.

Johns Manville's Parkersburg facility produces a variety of fiber glass products for the automotive, air filtration, and aircraft industries. There are nine production lines at the facility. All use the unique flame attenuation process as opposed to the more common, and higher capacity, rotary spin process. Of the nine production lines, six produce various media for either gas or liquid filtration. These products are unique due to the very fine fiber diameter and the reduced thickness of the finished product. The remaining three units produce various cured and uncured material for the automotive industry.

The sources of the atmospheric pollutants are the exhaust from the various collection chambers used to form the mat and the exhaust from the curing section of each line. Johns Manville has previously concluded and demonstrated to OAQ that Regulation 7 is not appropriate for the Parkersburg facility's unique, high airflow, low concentration, and low input weight PM_{10} emissions sources. Emissions of particulate matter from individual stacks venting

the collection chambers at the facility cannot meet the duplicate source provisions of Regulation 7 based on stack test data submitted in the late 1980's and other subsequent information supplied by Johns Manville. Johns Manville has pursued research and development, abatement equipment, techniques and methodologies, and employed those which are both economically achievable and technically feasible to reduce particulate matter emissions for these sources in its efforts to comply with the duplicate source emission limits. Johns Manville completed a top-down best available technology study for particulate matter emissions which shows that the annualized cost of various types of abatement systems (scrubber, scrubber/wt ESP combination, incinerator, etc.) varies from approximately $67,000 to almost $142,000 per ton of pollutants avoided. This compares to the South Coast Air Quality Management District in California which considers an annualized cost of $5,700 to be the maximum reasonable cost to abate particulate matter. It appears that no traditional control measure is economically or technically feasible at the Parkersburg facility.

Under the duplicate source provisions of Regulation 7, allowable emissions are calculated based upon the combined process input weight for all sources. The allowable emission rate for each individual source is then established using the ratio of process input for the individual source to the total process input times the allowable emission rate for the combined sources. Since the relationship between the allowable emission rate and the process input rate is exponential rather than linear, the duplicate source provisions further reduces the emissions limits.

In lieu of the current Regulation 7 duplicate emission limits for flame attenuated fiber glass processes, Johns Manville performed an analysis and justification for "process-specific" emission limits. Johns Manville proposed emission limits using the best actual emission rate to date plus a 25% safety factor. This would result in emission limits which are technically achievable, enforceable, consistent with requirements in other states, and suitable for the production flexibility required.

The process-specific emission limitations are now a part of a consent order which was

negotiated between Schuller and the OAQ (dated March 6, 1995). This order also specified that an air quality modeling study, encompassing a region affected by Johns Manville emissions, would be performed to demonstrate that these revised emission limits will comply with the PM_{10} National Ambient Air Quality Standards (NAAQS). The OAQ has reviewed this modeling analysis and concludes that the analysis demonstrates that the revised emission limits incorporated in proposed Regulation 7 do not violate the PM_{10} NAAQS.

EMISSION LIMITATION COMPARISON

MACHINE	ALLOWABLE EMISSION LIMITS	BEST EMISSION TO DATE	PROPOSED EMISSION LIMITS
UNIT 41	2.70	2.60	3.25
UNIT 42	4.21	3.71	4.64
UNIT 43	2.70	3.90	4.88
UNIT 44	2.45	2.14	2.68
UNIT 45	8.36	7.40	9.25
UNIT 46	8.17	8.00	10.00
UNIT 47	1.05	5.19	6.49
UNIT 48	1.05	3.50	4.38
UNIT 49	1.05	2.45	3.06
TOTAL	**31.76**	**38.89**	**48.61**

STATEMENT OF ROGER SNOW
JOHNS MANVILLE INTERNATIONAL, INC.
August 4, 1997
Charleston, West Virginia

Good evening. My name is Roger Snow. I am the Plant Manager for the Johns Manville International, Inc. plant at Vienna in Wood County. I appear to speak in support of the proposed amendments to Regulation 7 which will establish specific performance standards for particulate emission from our process lines. The proposed legislative/emergency rule is substantially similar to the proposed revisions filed February 19, 1997 with the Secretary of State's Office and of which I spoke in support on March 27, 1997 during the public hearing. Since the original proposed rule change, the company has changed its name from Schuller International, Inc. to Johns Manville International, Inc. To minimize duplication of efforts, I am attaching to my written statement copies of several documents which address the proposed rule change.

There are two differences between the February 19, 1997 proposed rule and the June 30, 1997 proposed rule. First, the proposed revisions which are the subject matter of this public hearing contain the language that permits Johns Manville to adjust allowable emissions among their fiberglass production lines. The adjustment language was approved by the Office of Air Quality in 1995 as part of a related consent order. While the added language allows Johns Manville to adjust the emissions from the collection lines and contains an overall cap on emissions, each emission line is subject to both a concentration limitation and a specific mass emission limit. The second difference between the revisions proposed in February and those proposed in June, also relate to this added language. The proposed revisions require Johns Manville to submit information and supporting documentation to the Office of Air Quality whenever

the company utilizes the adjustment language to change mass emission limitations on individual lines. The information reported to the Office of Air Quality provides the quantitative justification for the new emission limits on the affected lines. The changes to the affected lines do not impact the other limits, i.e., the overall cap on emissions and the concentration limit. These additional reporting requirements were included at the request of the Office of Air Quality. The proposed revisions provide Johns Manville some operational flexibility, are practically enforceable and protect human health and the environment.

These revisions to Regulation 7 are critically important to the future existence and competitive viability of our plant and its over 200 employees in Wood County. Thank you for the opportunity to appear tonight to address this issue so important to the future of our plant.

LIST OF ATTACHMENTS
SUBMITTED AT PUBLIC HEARING
AUGUST 4, 1997

1. Roger Snow's March 12, 1997 letter supporting the proposed revisions and requesting the incorporation of specific language which would provide the plant with operational flexibility.
2. A statement made by John Benedict at the March 27, 1997 public hearing.
3. Comments from EPA Region III regarding the proposed changes, dated March 27, 1997..
4. Johns Manville's April 1, 1997 response to EPA's comments.
5. Roger Snow's written statement made at the March 27, 1997 public hearing.
6. A March 19, 1997 letter in support of the revisions from Delegate Fred Gillespie.
7. A March 17, 1997 letter in support of the revision from Delegate Tom Azinger.
8. A March 10, 1997 letter in support of the revisions from the United Steel Workers of America, Local 22-G.
9. A copy of the transcript from the March 27 public hearing.

Original - Jammy
Copy - Dale
Josh B
3/13/97
SFA

John B

SCHULLER

March 12, 1997

G. Dale Farley, Chief
Office of Air Quality
Division of Environmental Protection
1558 Washington Street, East
Charleston, WV 25311-2599

Re: Proposed Revisions to 45 CSR 7 "To Prevent and Control Particulate Air Pollution from Manufacturing Process Equipment"

Dear Chief Farley:

These comments in support of the proposed changes to 45 CSR 7 are submitted by Schuller International, Inc., the company directly affected by the rulemaking, located at Vienna, West Virginia, in Wood County. As you know, the Schuller Plant is unique in that it is the only pot and marble fiberglass operation in the State. The plant makes fiberglass products ranging from extremely fine filtration media to automotive insulation. The plant has been in operation at its present location for many years. The purpose of this rulemaking is to establish specific performance standards for particulate emissions control for the production lines at the plant in lieu of provisions in Regulation 7 under the "duplicate source" rule.

The problem with the Regulation 7 duplicate source rule is that it does not take into account variation in the products which may be produced on similar lines. In our case, the emissions quantities from the lines making fine filtration material are very different from the lines making automotive products. Because of this, it is not possible for Schuller to operate in compliance on all of these lines with the limits that would apply under the "cookie cutter" approach of the duplicate source rule. Therefore, the company undertook complex modeling of the entire area in order to substantiate the specific performance standards which are reflected in the proposed rule. These performance standards reflect those under which the company is now bound through a State Administrative Consent Order, CO-95-7. This air quality modeling required by U.S. EPA, Region 3, was accomplished at great time and expense to demonstrate that these performance standards will protect air quality standards for particulates in the vicinity of the plant.

Because this is an older plant, there are no federal counterpart regulations which apply to similar operations. However, we do know, in comparing the proposed standards to limits imposed by other states, that the Schuller Plant would currently be in compliance with emissions

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A Division of Schuller International, Inc

standards that would apply, for example, to a source located merely across the river from the Vienna Plant. The extremely stringent standards that result from application of the duplicate source rule would continue to put the Vienna Plant at a distinct competitive disadvantage, even with sister facilities within the company, but located in Ohio. West Virginia is the only state in the nation with a "duplicate source" rule. It does not meet the realities of modern manufacturing and markets.

More importantly, the monitoring data collected by the Office of Air Quality for the monitor located nearest the plant shows that the air in the area is well within compliance with the Ambient Air Quality Standard for PM_{10}. Since the approval of this rule will not result in any actual increase in emissions, the affect of these numeric levels is already in evidence at this monitor. There is, therefore, no question that these specific performance standards are protective of the ambient air quality. Under the current Consent Order, the company has been managing its operations under a "bubble" approach that allows the company to differentially distribute the allowable emissions for each line under the sum total "cap" limitation of emissions for all of the lines, by giving notice to the OAQ and providing the new specific limitations for a given line at a given time. At all times, the cap must be met for the sum total of the lines, and no one line can exceed a specified concentration level reflected in the Order. This operational flexibility language in the Consent Order has given the company the ability to respond to market demands in a timely way, but also to assure that the emission limits for the plant are always quantified and are practically enforceable. This is true because on any given day specific emissions limits are identified and applicable to all lines subject to this rulemaking and the current Consent Order. The use of a "bubble" or "cap and trade" approach is specifically recognized and approved by EPA as a legitimate approach to management and control of emissions. West Virginia's own Regulation 19 also recognizes the validity of a "bubble" approach to emissions control.

Because of the importance of this management flexibility, Schuller requests that language be restored to the rulemaking, taken from the Consent Order, which specifically allows the company, upon seven (7) days' notice, to trade allowable emission rates among the lines, but meeting the cap and concentration limits.

We believe that there is no doubt that such language, and the accompanying limitations, are practically enforceable. Under the proposed language taken from the Consent Order, each collection stack would be subject to a specific numeric limit at all times. This limit may vary slightly as the plant varies products on the line, but the mix of the allowable emissions can never exceed the cap. Such an arrangement is readily verified by the OAQ and others through testing. Simultaneous testing of all of the lines, while possible, would not be necessary in order for this provision to be enforceable. Our own experience has shown us that the numbers are likely to be

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traded only among two lines, making verification testing simple and straight forward.

In actual experience, the specific line numbers which have been provided to the OAQ in connection with use of the bubble approach have been the result of not just guessing, but are based upon testing or experience at other locations as to the predicted emission levels.

In summary, we request that the operational flexibility, "bubble", provisions, be restored to the proposed rule based upon the language in the related Consent Order under which the company is now operating, and that the balance of the rule be adopted as the agency-final rule. The establishment of these performance standards on a permanent basis is important to the Schuller Plant, which employs over 300 persons. We believe that it is highly desirable to reflect the performance standards in a rule at the earliest possible date, rather than continuing to rely upon a Consent Order.

We appreciate the time and assistance that the OAQ has provided to supply the necessary emissions data for the company to have run the complex model involved in this lengthy rulemaking effort. We now urge the OAQ to approve the standards as we have outlined above.

Very truly yours,

Roger Snow

Roger Snow
Plant Manager

RS:paj

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Public Hearing
for
Proposed Rule 45CSR7
and a
Revision to the State Implementation Plan
March 27, 1997

The current version of 45CSR7 - *"To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations"*, establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emission performance standards for pot and marble fiberglass manufacturing operations. The proposed rule changes will create source-specific performance standards appropriate to control the emission of particulate matter from individual stacks venting the fiber-forming collection chambers of duplicate flame attenuation (pot and marble) fiberglass operations that were in existence prior to June 1, 1993. The rule revision has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Schuller International, Inc. and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

Upon authorization and promulgation of revisions to 45CFR7, the OAQ will seek federal approval of the rule change by the U. S. Environmental Protection agency for inclusion in the State Implementation Plan for the Federal Clean Air Act.

The public comment period will close upon conclusion of this public hearing. The OAQ received three comment letters in support of the proposed rule. One of these letters was from Schuller International. Schuller proposes that 45CSR7 be modified to include provisions for redistributing the proposed allowable emissions for each process line while not exceeding the total allowable emissions (or emissions "cap") of all the lines. Schuller would notify the OAQ, within 7 days, and provide the new specific limitations for a given line at the given time. This concept is referred to as a "cap and trade" or "bubble" and is included in a 1995 Consent Order. The OAQ will either approve Schuller's proposal, approve it with modification or reject it. Late this afternoon, the OAQ is expecting to receive comments from EPA Region 3 on the revision to the State Implementation Plan. These comments will be review and considered before submission of 45CSR7 to EPA as a SIP revision. Copies of all comments are available for those who wish copies.

Also available is a document titled *"Particulate Emissions Justification for a Process Specific Standard"* developed by Schuller in support of the SIP revision. This document was referenced as Appendix A of the SIP support material submitted to EPA for comment but was not included the support material because of confidentiality claims. Only one individual

requested to review the file and the omitted "confidential" document. The OAQ complied with this request after determining that the document was not confidential information.

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Regulation 7 establishes particulate emission standards for a diverse variety of manufacturing process operations. The regulation affects small process operations such as spray painting booths to large process operations associated with steel production such as coke oven batteries.

Schuller's Parkersburg facility produces a variety of fiber glass products for the automotive, air filtration, and aircraft industries. There are nine production lines at the facility. All use the unique flame attenuation process as opposed to the more common, and higher capacity, rotary spin process. Of the nine production lines, six produce various media for either gas or liquid filtration. These products are unique due to the very fine fiber diameter and the reduced thickness of the finished product. The remaining three units produce various cured and uncured material for the automotive industry.

The sources of the atmospheric pollutants are the exhaust from the various collection chambers used to form the mat and the exhaust from the curing section of each line. Schuller has previously concluded and demonstrated to OAQ that Regulation 7 is not appropriate for the Parkersburg facility's unique, high airflow, low concentration, and low input weight PM_{10} emissions sources. Emissions of particulate matter from individual stacks venting the collection chambers at the facility cannot meet the duplicate source provisions of Regulation 7 based on stack test data submitted in the late 1980's and other subsequent information supplied by Schuller. Schuller has pursued research and development, abatement equipment, techniques and methodologies, and employed those which are both economically achievable and technically feasible to reduce particulate matter emissions for these sources in its efforts to comply with the duplicate source emission limits. Schuller completed a top-down best available technology study for particulate matter emissions which shows that the annualized cost of various types of abatement systems (scrubber, scrubber/wt ESP combination, incinerator, etc.) varies from approximately $67,000 to almost $142,000 per ton of pollutants avoided. This compares to the South Coast Air Quality Management District in California which considers an annualized cost of $5,700 to be the maximum reasonable cost to abate particulate matter. It appears that no traditional control measure is economically or technically feasible at the Parkersburg facility.

Under the duplicate source provisions of Regulation 7, allowable emissions are calculated based upon the combined process input weight for all sources. The allowable

emission rate for each individual source is then established using the ratio of process input for the individual source to the total process input times the allowable emission rate for the combined sources. Since the relationship between the allowable emission rate and the process input rate is exponential rather than linear, the duplicate source provisions further reduces the emissions limits.

In lieu of the current Regulation 7 duplicate emission limits for flame attenuated fiber glass processes, Schuller performed an analysis and justification for "process-specific" emission limits. Schuller proposed emission limits using the best actual emission rate to date plus a 25% safety factor. This would result in emission limits which are technically achievable, enforceable, consistent with requirements in other states, and suitable for the production flexibility required.

The process-specific emission limitations are now a part of a consent order which was negotiated between Schuller and the OAQ (dated March 6, 1995). This order also specified that an air quality modeling study, encompassing a region affected by Schuller emissions, would be performed to demonstrate that these revised emission limits will comply with the PM_{10} National Ambient Air Quality Standards (NAAQS). The OAQ has reviewed this modeling analysis and concludes that the analysis follows State and USEPA modeling guidance and policies. The modeling analysis also demonstrates that the revised emission limits incorporated in proposed Regulation 7 do not violate the PM_{10} NAAQS.

EMISSION LIMITATION COMPARISON

MACHINE	ALLOWABLE EMISSION LIMITS	BEST EMISSION TO DATE	PROPOSED EMISSION LIMITS
UNIT 41	2.70	2.60	3.25
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UNIT 48	1.05	3.50	4.38
UNIT 49	1.05	2.45	3.06
TOTAL	**31.76**	**38.89**	**48.61**

FAX TRANSMISSION

U.S. EPA (3AT22)
841 CHESTNUT STREET
PHILADELPHIA, PA 19107
PHONE: (215) 566-2194
FAX: (215) 566-2124

To: John Benedict

Fax #: (304) 558-1222

From: Thomas A. Casey

Subject: Schuller International (Reg 7)

Date: March 27, 1997

Pages: 6, including this cover sheet.

COMMENTS:

John,

Here are EPA's comments on West Virginia's proposal to relax Reg 7. Call me if you have any questions. I'll be in the office until about 6:00pm.

Tom

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Mr. G. Dale Farley, Chief
West Virginia Office of Air Quality
1558 Washington Street
Charleston, West Virginia 25311-2599

MAR 2 7 1997

Dear Mr. Farley:

Thank you for sending to EPA a copy of your proposal to relax West Virginia's 45 CSR 7, *To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations.* We understand that the intent of this revision is to provide regulatory relief to Schuller International, a fiber glass manufacturer in Vienna, West Virginia. EPA appreciates the opportunity to comment on your proposal at this time.

While the package that we reviewed was well organized, and appeared to benefit from comments made my EPA on the air quality modeling protocol in 1993 and 1995, a number of problems in the modeling demonstration and the regulatory package remain. These are described in the enclosed document. If you have any questions or comments regarding this matter, please contact me at (215) 566-2187, or Thomas Casey of my staff at (215) 566-2194.

Sincerely,

Makeba A. Morris, Chief
Technical Assessment Section

Enclosure

EPA Comments on West Virginia's Proposed Revisions to 45 CSR 7 -- *To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations.*

Comment #1 -- Claim That Current Limit Is Unachievable is not Supported

In the materials furnished to EPA in support of the rulemaking, both Schuller and WVOAQ claim that the current emission limits are not achievable. While this is not a federal condition for West Virginia to relax its rules or for EPA to approve a relaxation of West Virginia's State Implementation Plan, West Virginia should not make the claim without supporting it in the docket. Detailed descriptions of Schuller's manufacturing process were not included in the docket. It is not possible to determine the validity of this claim, or judge the laxity of the proposed rule, without more information.

WVOAQ should include in its rulemaking docket sufficient documentation to support the claim that the current emission limit in unachievable. Ideally WVOAQ should include enough information in the file so that an interested member of the public could (1) understand the process being regulated, (2) understand the existing and proposed emission limits, and (3) have a sense for how stringent the rule is compared to those in other states (e.g., limit for Schuller's facility in Ohio). WVOAQ should express the emission limit in terms of a weight rate so that it can be compared to the those of other states. (Schuller's output rates were not provided.)

Comment #2 -- Condensible Particulate

Estimates of Schuller's emissions may be greatly understated. Section 5.1 of the air quality analysis indicates that Schuller's fiber glass forming lines emit "various organic materials (most in gas phase) which condense in the back half of the Method 5 test" (40 CFR Part 60 Appendix A, Method 5). The analysis ignores these condensible emissions in its estimates of particulate emissions.

The air quality demonstration must include condensible emissions consistent with the State and national ambient air quality standards for PM-10.

Comment #3 -- Determining Compliance

The air quality analysis states that "there is no accurate and approved method of measuring condensible particulate matter from the Schuller process." WVOAQ must identify an appropriate means of determining compliance with the proposed emission limit. Methods 201 or 201A, in conjunction with Method 202 (40 CFR Part 51 Appendix M) would seem to be a good choices for the solid and condensible fractions, respectively.

Comment #4 -- PSD Increment

WVOAQ and the public should be aware that, if Prevention of Significant Deterioration (PSD) baseline has been triggered for particulate matter in the area, then any increase in actual emissions at Schuller will consume PSD increment and may potentially interfere with the siting of new facilities in the area. (See 40 CFR 51.166).

Comment #5 -- Use of Actuals where Allowables not Available

Section 4-2 of the Air Quality Analysis indicated that "if allowable emissions data were not available, actual emissions data were used instead." As EPA has stated in previous comments on this issue, for this rule relaxation to be approvable as a SIP revision, the air quality demonstration for the 24-hour National Ambient Air Quality Standards (NAAQS) must be based on the lesser of federally allowable emissions or physical potential to emit. Some flexibility is provided for comparison to annual standards. See Table 9-1 of the *Guideline on Air Quality Models* (GAQM, 40 CFR Part 51 Appendix W).

Comment #6 -- Different Approach on Short-Term vs. Annual North Carolina Screening

The "modified North Carolina approach" for screening distant sources out of the refined air quality analyses was implemented differently for annual and short-term impacts. It is unclear in the documentation provided why this is the case. The air quality analysis should explain this apparent inconsistency.

Comment #7 -- SCREEN3 Screening

Schuller's air quality analysis employs a "modified North Carolina approach" to identify sources that are unlikely to contribute to exceedances of the NAAQS; these sources are excluded from further analysis. Then, some of the remaining sources are subjected to an analysis using SCREEN3. From the description on page 4-3, it appears that some sources whose impacts were significant at their location of maximum impact were screened out of the analysis simply because their fence line impacts were *de minimis.*

Excluding sources that are expected to have significant impact in Schuller's "zone of influence" is inconsistent with the overall approach of the demonstration. Sources should not be screened out of the analysis based only on estimated fence line concentrations.

Comment #8 -- Use of CARB Emissions Factors

The documentation to the air quality demonstration indicates that particle size-specific emissions factors from the California Air Resources Board were used to convert estimated rates of emissions of total suspended particulate to PM-10. As stated by EPA is previous comments on this issue:

> Absent any site-specific source testing, *Compilation of Air Pollution Emission Factors, Volume I: Stationary Point Sources* (AP-42) should be used as the primary guidance in estimating PM-10 emissions. Exceptions may be considered, based on technical merit, on a case-by-case basis.

The air quality analysis did not provide any technical justification for using CARB factors or even where CARB factors (as opposed top AP-42 factors) were applied. West Virginia should clearly state the origin of each factor, and for non-AP-42 factors, provide a justifications for their use.

Comment #9 -- Use of "Actuals" for Annual Modeling

Page 4-5 of the air quality analysis suggests that "USEPA allows use of actual instead of allowable emissions data to complete modeling for regional sources for annual periods." WVOAQ should ensure that this is done in a manner consistent with the Table 9-1 of the GAQM.

Comment #10 -- Background

Background concentrations are values that are added to modeled concentrations before comparison with the NAAQS in order to account for sources not modeled. Where everyday background data are not available, the background concentration should represent the average for each "meteorological condition of concern." (See section 9.2 of the GAQM.) As EPA has noted in previous discussions on this issue, in the case of Schuller, background should include nonanthropogenic sources, distant anthropogenic sources, and local sources not modeled, such as motor vehicle and home heating.

Data from three area monitoring stations are available-- Parkersburg, West Virginia (a TSP station), Vienna, West Virginia, and Gifford State Forest in Ohio. (The first sentence of section 6.1 confuses the Parkersburg and Vienna sites.) For the short-term analysis, for each day of the year for which data from Gifford are available, the analysis identifies the site with the lowest daily concentration and assigns the concentration at that monitor to that day. Days for which no data are available at Gifford are apparently ignored. The "highest fifth-high 24-hour average value for the four years" of data was selected as the background concentration.

There are two problems with this approach. First, it is unclear how monitoring data from Gifford can represent the "local sources not modeled" component of background. The station is 33 kilometers away from Vienna and, more importantly, does not appear to be effected by the same "non-modeled" activity as the monitor in Vienna. The analysis should either model these local area sources explicitly, or use data from the local PM-10 monitor and try to "sector out" impacts from sources that are already included in the modeling analysis. Second, it is unclear what is meant by the "highest fifth-high" in this context. Since everyday data are not available, the analysis should either (a) identify background concentrations that represent averages for various meteorological conditions (e.g., stability, wind speed, mixing height, humidity); or (b) identify background concentrations that are clearly conservative (high) compared to (a), above (e.g., use the high for the year).

The development of the annual background concentration suffers from the same "local sources not modeled" problem as the development of the short-term concentration, and the comments above apply.

Comment #11 -- 30-meter Winds

Schuller's consultant collected meteorological data from a tower instrumented at 2, 10, and 30 meters. As EPA indicated in previous comments, other things (e.g., data quality) being equal, 30-meter winds are preferable for this analysis because they most closely represent plume height for Schuller, the primary source of interest.

Comment #12 -- Disks and Figures

The documentation for the air quality analysis referred to a number of figures that were missing. Also, modeling analyses in electronic format were not included in the package sent to EPA. Please include in all modeling packages for EPA review diskettes that contain the data and analyses under review.

Comment #13 -- Not "source-specific"

Some of the material presented by WVOAQ refers to the proposed regulatory change as "source-specific." While Schuller's may be the only facility in the State subject to the change, the proposal is to revise WVOAQ Rule 7 generally. Therefore this revised limit would apply to any other facility in the state that may choose the flame attenuation method.

Comment #14 -- Other Pollutants

WVOAQ should identify any increases in emissions of other pollutants (e.g., volatile organic compounds, air toxics) that would result as a relaxation of Regulation 7.

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*** ACTIVITY REPORT ***
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RECEPTION OK

TX/RX NO.	6503
CONNECTION TEL	215 566 2124
CONNECTION ID	
START TIME	03/27 16:18
USAGE TIME	03'07
PAGES	6
RESULT	OK

S|C|H|U|L|L|E|R

April 1, 1997

Mr. G. Dale Farley, Chief
West Virginia Office of Air Quality
1558 Washington Street, East
Charleston, West Virginia 25311-2599

RE: Schuller International's Response to Comments from the USEPA pertaining to West Virginia's Proposal to Revise Rule 45 CSR7

Dear Chief Farley:

Shortly before the beginning of March 27, 1997 public hearing on the proposal to revise Regulation 7, the Office of Air Quality received comments from the U.S. Environmental Protection Agency's Region III office (EPA). Since these comments were submitted so late in the public comment period, the administrative record for receiving comments was left open up to and including today, April 1, 1997, so that Schuller could submit a response to EPA's comments. The purpose of this letter is to submit that response. Each response below pertains to its numbered counterpart in EPA's comments.

Comment No. 1: Achievability of Current Limit

Schuller understands that not all of the information supplied to the West Virginia Office of Air Quality (OAQ) in Appendix A of Schuller's ***PM10 Ambient Air Quality Analysis to Support a SIP Amendment*** (Report) document was supplied to EPA. The final SIP revision request package will contain all information and data relevant to this issue. One of the documents was simply mislabelled and this has been corrected.

Comment Nos. 2 and 3: Condensable Particulate and Determining Compliance

The purpose of the PM_{10} modeling demonstration was to demonstrate that approval of the proposed revision to 45CSR7 would not interfere with current PM_{10} NAAQS attainment status of the region surrounding the facility. To that end, Schuller has indeed modeled all of the emissions of PM_{10} being emitted from its facility in Vienna, West Virginia. As part of the SIP approval process EPA requires that states use choose from among only EPA-approved test methods to measure compliance with PM_{10} mass emissions. States have the discretion to choose to measure a surrogate instead of measuring actual PM_{10} - as long as that surrogate method is approved by EPA.

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In West Virginia the OAQ has selected the front half of EPA's Method 5 as its means of measuring emissions of PM_{10h}. Since this method is among those already approved by EPA in Appendix A to 40 CFR Part 60, the method is an appropriate way to measure PM_{10} and to determine compliance.

Schuller well understands EPA concerns regarding condensable particulate matter (CPM) emissions. To better understand our CPM emissions, Schuller has undertaken a research program aimed at quantifying our true CPM emissions which are part of PM_{10}. The information and data which Schuller has gained through the early stages of this program indicate that the Method 5 front-half stack test is a reasonable, and even potentially conservative, estimate of PM_{10} emissions from our manufacturing sources.

Because our emissions contain materials which will combine artificially to form solids in a cooled water environment, the use of water impingers in stack test methods such as Method 5 back-half and Method 202 are not appropriate to measure of CPM for our processes. In addition, much of the material that a Method 5 back-half would capture for our processes is actually gaseous at ambient temperatures and should not be counted as solid particulate matter. Instead, Schuller has performed studies using a dilution probe to measure the true ambient PM_{10} emissions from our processes and the early tests have confirmed that the use of Method 5 front-half is appropriate to measure PM_{10}. Schuller plans to soon develop this information into a new stack test procedure to measure PM_{10}, and potentially $PM_{2.5}$. For now, Schuller will continue to use the Method 5 front-half as it provides reasonably accurate PM_{10} emissions information and is supported by the OAQ.

Comment No. 4: PSD Increment

It is unlikely that the Wood County PSD increment has been triggered. The OAQ will confirm this in the near future. When Schuller started the study in 1993, the OAQ provided Schuller with information which indicated that no source had triggered the particulate baseline in the area. If this is still so, no changes associated with the revision to 45CSR7 will be increment consuming.

Comment No. 5: Use of Actuals

The modeling study used only 24-hour allowables to represent emissions from regional sources. The use of actual emissions was discussed for annualized emissions only in accordance with use of Table 9-1 of the "Guideline of Air Quality Modeling." In fact, no actual emissions were used in the study at all.

Comment No. 6: Short-Term vs. Annual North Carolina Screening

The North Carolina Protocol states that the methodology for using the screening approach is different for 24-hour vs. annual estimation periods. The difference is made clear on page 4-3 of the Report and is supported by the methodology supplied with the modeling protocol found in Appendix C thereto. The study used the correct approach for screening out facilities from the modeling study.

Comment No. 7: SCREEN3 Screening

The use of SCREEN3 here is misinterpreted by EPA. The regional sources were modeled at a distance which began at the facility's fence line but continued until the maximum point of impact was found. In this manner, no source was eliminated from the study if its fence line impacts were below the significance threshold and an impact over the significance level was found further downwind. Only sources which were below the *de minimis* level at the maximum point of impact beyond the source's fence line were eliminated. This methodology was used for all regional sources inside the zone of influence of Schuller emissions.

Comment No. 8: Use of CARB Emissions Factors

The use of AP-42 was deemed to be primary for use in converting emissions from TSP to PM_{10} for this study. The CARB PM_{10} emission factors were employed only after consultation with the OAQ and where no appropriate value was found in AP-42. The CARB emission factors are conservative and proper to use when no AP-42 factor exists.

Comment No. 9: Use of Actuals

See the explanation for Comment No. 5, *supra*.

Comment No. 10: Background

Schuller strongly disagrees with the comments regarding the background concentration data. The three monitors are all inside the Schuller zone of impact, and therefore, all the data are quite relevant. The monitors in Parkersburg and in Vienna are strongly influenced by Schuller and all other regional sources. Using the "sector out" approach to remove concentration data would leave very few days where there would be relevant data. These monitors are surrounded by sources which were not screened out of the refined modeling analysis. In fact, the Vienna PM_{10} monitor is only 200 yards from the Schuller facility. In addition, the

Parkersburg data is for TSP, reflecting significantly higher values than would be found if the monitor were merely for the PM_{10} fraction.

The Gifford State Forest monitor was included into the analysis because it can deliver a background value which is not directly affected by the significant sources in the modeling study. The concentration values for this site are conservative as well. The concentration values at the Gifford State Forest monitor compare reasonably with data from the Vienna monitor. With the methodology used in the study, the three sites provided a conservative background value with double-counting modeled sources. This methodology was recommended by the OAQ and has been used in other regional SIP studies which have been accepted by the OAQ and the EPA.

Comment No. 11: 30-Meter Winds

While Schuller agrees that its facility was the "primary source of interest" for the modeling study, the design concentrations for the study were dominated by the many regional sources. Emissions from these regional sources are released at various heights, including some ground level volume sources, and are therefore best represented by the 10 meter data. The model allows for increased winds at the 30-meter height with the use of the wind power law function built into the ISCST3 model. While it is possible for the Schuller sources to be run with 30 meter data and the regional sources to be run with 10 meter data, it is complicated to combine the results to gain the proper design concentrations. In fact, it would be possible that, since this is a function of the dispersion model, developing a post processing model to perform such a function would require a rigorous review from the OAQ and the EPA before its use was allowed. For these reasons, Schuller was given permission by the OAQ to use the 10 meter wind data for the dispersion modeling.

Comment No. 12: Disks and Figures

The OAQ has communicated to Schuller that the disks and figures will be supplied to the EPA by the OAQ.

Comment No. 13: Not "Source-Specific"

The OAQ may write the regulation to be Schuller-specific if necessary. It is possible that, when Schuller's name change to Johns-Manville is final, an unnecessary administrative SIP change could be required. We therefore believe it is most appropriate to leave the rule described in generic form.

Comment No. 14: Other Pollutants

Because there will be no changes that will occur to the Schuller Facility processes as a result of this amendment, there will be no corresponding increase in any other pollutants.

If you have any questions regarding these comments, please feel free to call Jeff Tarde of the Schuller Health Safety & Environment Department at 303/978-2161.

Sincerely,

Roger Snow

Roger Snow
Plant Manager

STATEMENT OF ROGER SNOW
PLANT MANAGER
SCHULLER INTERNATIONAL
IN SUPPORT OF AMENDMENTS
TO 47 CSR 7

Charleston, West Virginia
March 27, 1997

Good evening. My name is Roger Snow. I am the Plant Manager for the Schuller International plant at Vienna in Wood County. I appear to speak in support of the proposed amendments to Regulation 7 which will establish specific performance standards for particulate emissions from our process lines.

The proposed amendments are based upon limits which we have been observing since 1995 when we entered into a Consent Agreement with the OAQ to address these issues and the amendments are based on that Consent Agreement.

The proposed performance standards have undergone sophisticated air modeling that included data from an on-site meteorological tower operated for just this purpose. The modeling demonstrates that these performance standards will maintain the ambient air quality standards for particulates in our vicinity. Furthermore, it is important to note that the nearby air monitor of the OAQ shows clearly that our area is well in compliance with the particulate standard and has been for years now.

Our plant makes fiberglass filtration and insulation products on the lines affected by these amendments. The production lines are in a sequence and similar in function. However, the type of product run on each line can vary over time with market conditions and accordingly the amount of particulate matter emitted can also vary. In order

to meet the changing market demands and product development, we believe it is essential that language allowing the plant to "bubble" the emissions among these lines be restored in the final rule. This "bubble" was approved by the OAQ in 1995 and OAQ staff have raised no objection to the "bubble" in the two years we have been implementing it.

During these two years of operations under the "bubble" we have observed an overall cap on emissions from these lines, plus a concentration limit on each line, plus specific mass emission limits for each line. Therefore, the OAQ and Schuller have always been able to measure compliance against a known and verifiable limit for each line at any time. We believe this combination of operational flexibility and practical enforceability has

worked well and should be a part of the final rule too.

This rulemaking has come after a long effort by the Company to do everything reasonably possible to minimize its emissions and try to meet the existing Regulation 7. However, the peculiarities of the "duplicate source" provisions of Regulation 7 are such that the existing regulation simply does not work for similar lines that make different products. In fact, the current Regulation 7 is the most stringent particulate emission limitation facing Schuller in the 25 states in which we do business. That is why we have engaged in this long, expensive process of research and development and modeling to fashion standards that are appropriate to our processes. The proposed standards are actually lower than those which would apply if the

plant was located just across the river in Ohio, where our three sister plants - plants with which we must compete for new business and capital investment - are located. In fact, the concentration limit is so low that it is comparable to the OSHA standard that applies to indoor air for worker safety. This means that from an air quality standpoint a person could safely work an entire eight hour shift inside one of our emission stacks.

This action is extremely important to the continued viability of our plant and its over 200 employees in Wood county and we respectfully request quick adoption of the amendments. We realize that you may have some questions concerning the amendments; therefore, we have tonight assembled several additional Schuller representatives from various disciplines important to

the amendments who can address any issue or questions you may have. Thank you for the opportunity to appear tonight to address an issue so important to the future of our plant.

HOUSE OF DELEGATES
WEST VIRGINIA LEGISLATURE
BUILDING 1, ROOM M-212
1900 KANAWHA BLVD., EAST
CHARLESTON, WV 25305-0470
PHONE (304) 340-3200

FREDERICK GILLESPIE
1205 MARKET STREET
PARKERSBURG, WV 26101
PHONE (304) 422-4461

March 19, 1997

Committees:
Education
Banking & Insurance
Health & Human Resources

Mr. G. Dale Farley, Chief
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311-2599

Dear Chief Farley:

The Schuller International Inc. plant located in Vienna, West Virginia in my district employs over 300 people in Wood County. The annual plant budget is over $14 million and they pay an annual property tax of about $400,000.

This company is seeking changes to Regulation 7 to establish specific particulate performance standards for the production lines at their factory. The rule would establish mass emission limitations for particulates on each production line and an overall emissions cap on the sum total of all the lines. Schuller needs this rule change. The key language is needed which would allow management operational flexibility while operating under a "bubble" emissions cap.

I would greatly appreciate your support in facilitating this change in Regulation 7 to enhance the efficiency of operation of this company which employs so many West Virginians.

Sincerely yours,

Fred Gillespie

Delegate Fred Gillespie

FG/lds

prefers interim mail, April through December, at home address

FACSIMILE TRANSMISSION

I.B.E.W. LOCAL UNION NO. 968
1845 Seventh Street
Parkersburg, WV 26101

FACSIMILE NUMBER: 304-485-7413

DATE: August 1, 1997

ATTENTION: Jim Elliott

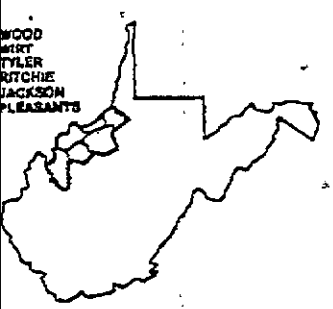
NUMBER OF PAGES INCLUDING COVER SHEET 3

FROM: James M. Ross

REMARKS:

IF YOU HAVE ANY PROBLEMS RECEIVING THIS FACSIMILE TRANSMISSION, PLEASE CALL 485-7412.

Tammy
John J
8/4/97 Ka. Karen W



International Brotherhood of Electrical Workers
LOCAL UNION NO. 968
1845 7th Street
Parkersburg, West Virginia 26101
Phone (304) 485-7412

August 1, 1997

G. Dale Farley, Chief
Office of Air Quality
1558 Washington Street East
Charleston, WV 25311-2599

RE: Proposed Revisions to 45CSR7-**To Prevent and Control Particulate Air Pollution From Manufacturing Process Equipment**; Schuller International, Inc.

Dear Chief Farley:

The purpose of this letter is to comment on behalf of I.B.E.W. Local Union 968 on the above proposal to amend West Virginia Regulation 7 on the control of particulate matter emissions. We have reviewed the proposal and its impact on the plant as well as on the environment. With one addition explained below, we strongly endorse the proposal and request that it be approved and forwarded on to the Environmental Protection Agency for their approval as a revision to the West Virginia State Implementation Plan.

The reason for the proposed change is the State's duplicate source rule. Under that rule emission limits become ever more restrictive when two or more similar sources are found at the same plant. This, in effect, punishes companies like Schuller that have for competitive reasons co-located multiple similar sources under one roof. The proposed regulatory change will merely cause each source at the Schuller plant to be treated as if it were not a duplicate source while also imposing a cap on all collection emissions. This will not give to Schuller a special break or advantage over its competitors but instead will merely level the playing field by harmonizing West Virginia air regulations with most other states in which Schuller and its competitors operate. For example, if the plant were located across the river in Ohio we would already be in compliance and would not need any regulatory change.

Our plant in Parkersburg must compete for manufacturing business not only with plants operated by other companies but also with other Schuller plants. With this regulatory change a competitive disadvantage in air regulations will be repealed thereby allowing us to compete on cost and productivity.

Although our union supports the proposal, there is one change that we believe is necessary and appropriate to make. In the original proposal (and in the administrative

consent order on which it was based) Schuller was granted permission to reallocate emission allowables among its several stacks on two conditions. First, Schuller had to give to the Office of Air Quality at least seven days advance notice of such a change. Second, any reallocation could not cause Schuller to exceed the overall emissions cap imposed on the plant. Any such reallocated will not have an unacceptable impact on either public health or the environment. In addition, the seven day notice provision is critical to Schuller's continuing competitiveness since it is becoming increasingly important to rapidly change the plant's product mix. Finally, any reallocated allowable will be strictly enforceable for each stack.

If you have any questions concerning this matter, please contact me at (304) 485-7412.

Sincerely,

James M. Ross
Business Manager

JMR/cmt

pc: file

WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

STATE OF WEST VIRGINIA,

COUNTY OF KANAWHA, to-wit:

I, the undersigned, Missy L. Young, a Certified Court Reporter and Notary Public within and for the State of West Virginia, duly commissioned and qualified, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings had in the aforementioned matter.

Given under my hand and official seal this 31st day of March 1997.

Missy L. Young

Court Reporter
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
MISSY [illegible]
1341 WHITE [illegible]
CHARLESTON, WV 25320
My Commission Expires March 9, 2004

My commission expires March 9, 2004.

emissions from the process lines at our facility. I thank you on behalf of the 188 members that I represent.

MS. CHANDLER: Thank you, Mr. Nichols. Bruce Ray?

MR. RAY: I'm Bruce Ray. I'm in-house environmental counsel for Schuller International. I put down that Schuller was going to make a comment, which our plant manager, Roger Snow, has already made.

MS. CHANDLER: Okay. Would anyone else like to comment that didn't get to sign in? No?

Our court reporter this evening is Missy Young. Her number and address is 223 Nash Lane, Buffalo, West Virginia 25033. Her phone number is 304-937-2555 if anyone would like a copy of the transcript for this evening's proceedings.

If there's no additional comments -- as I announced before, the comment period has been extended to April 1st, the end of business on April 1st, to allow comments to be made on EPA's comments that we've just received. If there's nothing additional, this public hearing of 45CSR7 is now closed.

(WHEREUPON, the public hearing was concluded at 5:30 p.m.)

you'd like to submit those comments, that would be great.

MR. SNOW: Yes.

MS. CHANDLER: Mr. Nichols?

MR. NICHOLS: Yes.

MS. CHANDLER: You're welcome to come up here, if you'd like, or sit where you're at.

MR. NICHOLS: I can sit down. Yes, that's fine.

MS. CHANDLER: If you'd just please give your name.

MR. NICHOLS: Yes. My name is James F. Nichols.

MS. CHANDLER: Great. Thank you.

MR. NICHOLS: I'm the Union President of the United Steelworkers of America Local No. 22G. I represent 188 members at the Schuller International Plant. To me, this means I represent 188 West Virginia families. In the past, West Virginia has lost many jobs to our neighboring states. Our facility is in direct competition with three sister plants in the state of Ohio.

For these reasons, I must speak in support of the proposed amendments to Regulation 7, which will establish specific performance standards for particular

That is why we have engaged in this long, expensive process of research and development and modeling to fashion standards that are appropriate to our process. The proposed standards are actually lower than those which we would apply at the plant which is located just across the river in Ohio where our three sister plants which we must compete for for new business and capital investment are located. In fact, the concentration limit is so low that it is comparable to the OSHA standard that applies to indoor air for worker safety.

This action is extremely important to the continued viability of our plant and its over 200 employees in Wood County that we have employed at the Wood County facility, and we'd respectfully request quick adoption of these amendments. We realize that you may have some questions concerning the amendments; therefore, we have tonight assembled several additional Schuller representatives from various disciplines important to these amendments, who can address any issues or questions you may have.

Again, thank you for this opportunity to appear this evening.

MS. CHANDLER: Thank you, Mr. Snow. If

Quality in 1995, and the Office of Air Quality staff have raised no objection to this "bubble" in the two years that we have been implementing it.

During these two years of operations under the "bubble," we have observed an overall cap on the emissions for these lines, plus a concentration limit on each line, plus specific mass emission limits for each line. Therefore, the Office of Air Quality and Schuller have always been able to measure compliance against a known and verifiable limit for each line at any time. We believe this combination of operational flexibility and practical enforceability has worked well and should be a part of the final rule as well.

This rulemaking has come after a long effort by our company to do everything reasonably possible to minimize the emissions and try to meet the existing Regulation 7. However, the peculiarities of the "duplicate source" provisions of Regulation 7 are such that the existing regulation simply does not work for similar lines that make different products. In fact, the current Regulation 7 is the most stringent particular emission limitation facing Schuller in the 25 states in which we do business.

based on this Consent Agreement.

The proposed performance standards have undergone sophisticated air modeling that included the data from an on-site meteorological tower operated for just this purpose. The modeling demonstrates that these performance standards will maintain the ambient air quality standards for particulates in our vicinity. Furthermore, it is important to note that the nearby air monitor of the Office of Air Quality shows clearly that our area is well in compliance with the particulate standard and has been for years now.

Our plant makes fiberglass filtration and insulation products on the lines affected by these amendments. Production lines are in sequence and similar in function; however, the type of product that we run each line on can vary over time with market conditions and, accordingly, the amount of particulate matter emitted can also vary.

In order to meet the changing market demands and product development, we believe it is essential that the language allowing the plant to "bubble" the emissions among these lines be restored in the final rule. This "bubble" was approved by the Office of Air

MR. SNOW: I would like to enter a statement.

MS. CHANDLER: Okay, certainly. We'll open the floor up now for public comment or oral comments. I'll just take them as people check. Bruce Ray?

MR. SNOW: I'm Roger Snow. Bruce is not here.

MS. CHANDLER: Did you sign in that you wanted to make a comment?

MR. SNOW: No.

MS. CHANDLER: Okay. We'll start with you then.

MR. SNOW: I do have a statement here I'd like to read. My name is Roger Snow. I am the Plant Manager there at the Schuller Plant in Vienna, Wood County. I appear tonight to support these proposed amendments as described to Regulation 7, which will establish specific performance standards for particulate emissions from our production lines.

These proposed amendments are based on limits which we have been observing since 1995 when we entered into a Consent Agreement with the Office of Air Quality to address these issues and the amendments are

average PM_{10} concentration was determined to be 42.7 $\mu g/m^3$. This value includes the background concentration of 20.8 $\mu g/m^3$. This value does not exceed the PM_{10} National Ambient Air Quality Standard of 50 $\mu g/m^3$.

In closing, I would like to say once again that the analysis shows that the air quality of Wood County will meet the national and state air quality standards for particulate matter of less than ten microns.

MR. BENEDICT: I'd like to add that there's a number of different material up here if anybody would like to pick it out. One in particular, I think, is kind of a summary of my comments. It also includes a table in the back that's got a comparison of the current emission allowables for Schuller's plant with a done best-to-date, as far as stack tests, and what is actually proposed. If you want a comparative analysis, I'd refer you to the material on that table to the back of that document.

MS. CHANDLER: There was a sign-in sheet made available at the front of the room. I hope you-all got to sign in. If you want to make oral comments, if you haven't got a chance to check off your name, please do so now.

Gifford State Forest was used. The background concentration was selected to be 41 $\mu g/m^3$ for a 24-hour averaging period and 20.8 $\mu g/m^3$ for annual averaging period.

Industrial Source Complex Model Version 3 -- we call it ISC3 -- was the model used to predict the PM_{10} concentration. ISC3 is a steady state Gaussian model which can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. The modeling was conducted according to the guideline on air quality dispersion models. For those who are interested in knowing more about the Guidelines to Air Quality Dispersion Models, please refer to Appendix W of 40CFR51.

Modeling was completed to demonstrate that, under the proposed amendment to Regulation 7, Schuller emission sources will neither cause nor contribute to an exceedance of the PM_{10} National Ambient Air Quality Standards. The highest estimated 2nd-high 24-hour PM_{10} concentration was determined to be 144 $\mu g/m^3$. That includes the background concentration of 41 $\mu g/m^3$. This value is below the national Ambient Air Quality Standard which is 150 $\mu g/m^3$. The highest estimated annual

air quality analysis. For this particular analysis, Schuller was required to collect on-site meteorological data for one year, from April 1, 1995 through March 31, 1996. Use of on-site meteorological data assures that the pattern of plume diffusion is correctly represented. We found that the predominant wind direction is along the river valley, which is south-southwest and north-northeast.

Approximately 2,000 receptors were used for the study which extended from the center -- that is, from Schuller's site -- up to 34.5 kilometers. That is the zone of impact, if you look at that diagram over there (indicating).

There are more PM10 sources than the one considered in the study and, yes, we have considered their impact in our final analysis. We refer to it as "Background Concentration." Background concentration is an essential part of the total air quality concentration. Background concentration includes natural sources, nearby sources other than the ones currently under consideration and unidentified sources. The most recent available four years -- that is, from 1992 through 1995 -- of complete particulate monitoring data from Parkersburg, Vienna and

features in a form of a receptor grid, hourly meteorological data and predicts concentration at a certain time for a certain period. In this case the pollutant we have studied is PM10, particulate matter less than or equal to 10 microns in diameter.

Before I proceed with my nuts-and-bolts explanation of air quality dispersion modeling, I want to announce that the analysis shows that the air quality of Wood County will meet all the national and state air quality health standards for particulate matter less than or equal to 10 microns.

How was the analysis done? 486 sources and 68 facilities around Schuller International were studied for the initial approach. This extensive list was reduced to 91 sources and 23 facilities using "Modified North Carolina" screening technique and using "Screen 3" modeling technique. If somebody is interested in knowing more about "Modified North Carolina" screening technique and "Screen 3" technique, they can ask me.

It was made sure that significant sources were retained for the air quality dispersion modeling analysis. In addition to the 91 sources and 23 facilities, 23 Schuller sources were included in the final

guidance and policies. The modeling analysis also demonstrates that the revised emission limits incorporated in proposed Regulation 7 do not violation the PM_{10} National Ambient Air Quality Standards.

For a discussion of our review of the modeling analysis that Schuller did, I'll turn it over to Samar Joshi.

MR. JOSHI: Good evening, ladies and gentlemen. My name is Samar Joshi. I'm the dispersion modeler assigned to do the technical analysis of the project. My supervisor, Mr. Benedict, has explained the history and background of the project and why we are proposing to revise the State Implementation Plan for Rule 45CSR7.

I will talk about the air quality dispersion modeling portion that is integrated in the review to support the State Implementation Plan amendment. Some of you may be thinking, What is air quality dispersion modeling? To put it in simple terms, it's a quantitative approach to predict the amount of a particular pollutant in the air.

Modeling takes into account the stack parameters in a form of a source file, topographical

the process input rate is exponential rather than linear, the duplicate source provisions further reduces the emission limits.

In lieu of the current Regulation 7, duplicate source emission limits for flame-attenuated fiberglass processes, Schuller performed an analysis and justification for "process-specific" emission limits. Schuller proposed emission limits using the best actual emission rate to date by stack test plus a 25-percent safety factor. This would result in emission limits which are technologically achievable, enforceable, consistent with requirements in other states and suitable for the production flexibility required in that industry.

The process-specific emission limitations are now part of the consent order which was negotiated between Schuller and the Office of Air Quality dated March 6, 1995. This order also specified that an air quality modeling study encompassing a region affected by Schuller's emissions would be performed to demonstrate these revised emission limits will comply with the PM_{10} National Ambient Air Quality Standards. The Office of Air Quality has reviewed this modeling analysis and concludes that the analysis follows State and USEPA modeling

emissions for these sources in its efforts to comply with the duplicate source emission limits of Reg 7.

Schuller completed a top-down best available technology study for particulate matter emissions which shows that the annualized cost of various types of abatement equipment, i.e. scrubbers, scrubbers with wet electrostatic precipitators in combination, incinerators, et cetera, varies from approximately $67,000 to almost $142,000 per ton of pollutants avoided. This compares to the South Coast Air Quality Management District in California, which considers as annualized cost of $5,700 to be the maximum reasonable cost to abate particulate matter. It appears that no traditional control measure is economically or technically feasible at the Parkersburg facility.

Under the duplicate source provisions of Regulation 7, allowable emissions are calculated based upon the combined process input weight for all sources. The allowable emission rate for each individual source is then establish using the ratio of process input for the individual source to the total process input times the allowable emission rate for the combined sources. Since the relationship between the allowable emission rate and

production lines, six produce various media for either gas or liquid filtration. These products are unique due to their very fine fiber diameter and the reduced thickness of the finished product. The remaining three units produce various cured and uncured material for the automotive industry.

The sources of atmospheric pollutants are the exhaust from the various collection chambers used to form the mat and the exhaust from the curing section of each line. Schuller has previously concluded and demonstrated to the Office of Air Quality that Reg 7 is not appropriate for the Parkersburg facility's unique, high air flow, low concentration and low input weight PM_{10} emissions sources.

Emissions of particulate matter from individual stacks venting the collection chambers at the facility cannot meet the duplicate source provisions of Regulation 7 based on stack test data submitted in the late 1980's and other subsequent information provided by Schuller. Schuller has pursued research and development, abatement equipment, techniques and methodologies, and employed those which are both economically achievable and technologically feasible to reduce particulate matter

confidentiality claims. Only one individual requested to review the file and the omitted "confidential" information. The OAQ complied with this request after determining that the document was not confidential information.

This evening with me is John Benedict, who will give a discussion and Samar Joshi, who will also talk about modeling. John?

MR. BENEDICT: My name is John Benedict. I'm Assistant Chief for Planning and Permitting with the Office of Air Quality.

Regulation 7 establishes particulate emission standards for a diverse variety of manufacturing process operations. The regulation affects small process operations, such as spray painting booths, to large process operations associated with steel production, such as coke batteries.

Schuller's Parkersburg facility produces a variety of fiberglass products for the automotive, air filtration and aircraft industries. There are nine production lines at the facility. All use the unique flame attenuation process as opposed to the more common, and higher capacity, rotary spin process. Of the nine

provisions for redistributing the proposed allowable emissions for each process line while not exceeding the total allowable emissions or emission "caps" of all the lines. Schuller would notify the Office of Air Quality within seven days and provide the new specific limitations for a given line at the given time. This concept is referred to as "cap and trade" or "bubble" and is included in a 1995 Consent Order. The Office of Air Quality will approve Schuller's proposal, approve it with modification or reject it.

Late this afternoon, the Office of Air Quality is expecting -- and we have received -- comments from EPA Region 3 on the revision to the State Implementation Plan. These comments will be reviewed and considered before submission to 45CSR7 to EPA as a SIP revision. Copies of all comments are available for anyone who wishes them. They're available here on the table.

Also available is a document titled, "Particulate Emissions Justification for a Process Specific Standard," developed by Schuller in support of the SIP revision. This document was referenced as Appendix A of the SIP support material submitted to EPA for comment, but was not included because of

stacks venting the fiber-forming collection chambers of duplicate flame attenuation, pot and marble, fiberglass operations that were in existence prior to June 1, 1993. The rule revision has been proposed pursuant to the Office of Air Quality's review of a petition for regulatory change by Schuller International, Incorporated and would affect only that company's existing fiberglass production facility located at Vienna, West Virginia.

Upon authorization and promulgation of revisions to 45CSR7, the Office of Air Quality will seek federal approval of the rule change by the U. S. Environmental Protection Agency for inclusion in the State Implementation Plan for the Federal Clean Air Act.

This public hearing is being held pursuant to the provisions of 29-A of the West Virginia Code and Section 110 of the Clean Air Act. The public comment period will close on April 1st, the end of business day, since we just received additional comments and we'll give you time to comment.

The Office of Air Quality has received three comment letters in support of the proposed rule. One of these letters was from Schuller International. Schuller proposes that 45CSR7 be modified to include

P R O C E E D I N G S

MS. CHANDLER: This public hearing will now come to order on the 27th day of March 1997 in the conference room of the West Virginia Division of Environmental Protection, Office of Air Quality, located at 1558 Washington Street, East, in Charleston, West Virginia. The purpose of the public hearing is to hear discussions on the proposed revisions to 45CSR7, "To Prevent and Control Particulate Air Pollution From Manufacturing Process Equipment."

By way of introduction, my name is Jeanne Chandler. I'm with the West Virginia Division of Environmental Protection, Public Information Office.

The current version of 45CSR7, "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations," establishes a program of regulation to prevent and control particulate air pollution from manufacturing process operations. The revisions establish specific emission performance standards for pot and marble fiberglass manufacturing operations.

The proposed rule changes will create source-specific performance standards appropriate to control the emission of particulate matter from individual

BEFORE THE WEST VIRGINIA DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

In the matter of:

PUBLIC HEARING ON PROPOSED LEGISLATIVE RULE

45CSR7 "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations

Transcript of proceedings had at a public hearing in the above-styled matter for the West Virginia Division of Environmental Protection, Office of Air Quality at the Conference Room, 1558 Washington Street, East, Charleston, West Virginia, 25305, commencing at 5:00 p.m. on the 27th day of March 1997, pursuant to notice.

Our plant in Parkersburg must compete for manufacturing business not only with plants operated by other companies but also with other Schuller plants. With this regulatory

change a competitive disadvantage in air regulations will be repealed thereby allowing us to compete on cost and productivity.

Although our union supports the proposal, there is one change that we believe is necessary and appropriate to make. In the original proposal (and in the administrative consent order on which it was based) Schuller was granted permission to reallocate emission allowables among its several stacks on two conditions. First, Schuller had to give to the Office of Air Quality at least seven days advance notice of such a change. Second, any reallocation could not cause Schuller to exceed the overall emissions cap imposed on the plant. Any such reallocation will not have an unacceptable impact on either public heath or the environment. In addition, the seven day notice provision is critical to Schuller's continuing competitiveness since it is becoming increasingly important to rapidly change the plant's product mix. Finally, any reallocated allowable will be strictly enforceable for each stack.

If you have any questions concerning this matter, please contact me at 304-295-4105
Sincerely,

Jackie L. Fouse
Sec/Trea. Local 22-g

UNITED STEELWORKERS OF AMERICA
LOCAL 22-G

March 10, 1997

G. Dale Farley, Chief
Office of Air Quality
1558 Washington Street East
Charleston, West Virginia 25311-2599

Re: Proposed Revisions to 45CSR7 - ***To Prevent and Control Particulate Air Pollution From Manufacturing Process Equipment***; Schuller International, Inc.

Dear Chief Farley:

The purpose of this letter is to comment on behalf of the United Steelworkers of America Local 22-G on the above proposal to amend West Virginia Regulation 7 on the control of particulate matter emissions. We have reviewed the proposal and its impact on the plant as well as on the environment. With one addition explained below, we strongly endorse the proposal and request that it be approved and forwarded on to the Environmental Protection Agency for their approval as a revision to the West Virginia State Implementation Plan.

The reason for the proposed change is the State's duplicate source rule. Under that rule emission limits become ever more restrictive when two or more similar sources are found at the same plant. This, in effect, punishes companies like Schuller that have for competitive reasons co-located multiple similar sources under one roof. The proposed regulatory change will merely cause each source at the Schuller plant to be treated as if it were not a duplicate source while also imposing a cap on all collection emissions. This will not give to Schuller a special break or advantage over its competitors but instead will merely level the playing field by harmonizing West Virginia air regulations with most other states in which Schuller and its competitors operate. For example, if the plant were located across the river in Ohio we would already be in compliance and would not need any regulatory change.

HOUSE OF DELEGATES
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March 17, 1997

Committees:
Government Organization
Banking & Insurance
Veterans' Affairs

Mr. G. Dale Farley, Chief
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311-2599

Dear Chief Farley:

I am writing regarding Schuller International in Vienna, West Virginia. They are good to our community.

Schuller needs a change in Rule 7 to enable them to act under a "bubble" emissions cap.

I live close enough to Schuller to almost be a "neighbor." Please give me a call so that we might discuss this.

Sincerely,

Tom Azinger

TA/ds

3/11

prefers interim mail, April through December, at home address

45CSR7

TO PREVENT AND CONTROL PARTICULATE AIR POLLUTION FROM MANUFACTURING PROCESS OPERATIONS

RESPONSE TO COMMENTS

At the public hearing on proposed revisions to 45CSR7 conducted on August 4, 1997, one person submitted a written statement in lieu of oral comments. In addition, the Division of Environmental Protection Office of Air Quality (OAQ) received several written comments on the rule from various entities. The OAQ has summarized these comments and provides the following response.

Commenter: West Virginia Manufacturers Association

COMMENT: *General.*
The commenter supported the proposed revisions to the rule.

RESPONSE: No response required.

Commenter: International Brotherhood of Electrical Workers

COMMENT: *General.*
The commenter supported the proposed revisions to the rule, but suggested a change be made to include certain language.

RESPONSE: The commenter is referring to a previous proposed rule. The additional language suggested by the commenter is included in the proposed rule.

Commenter: United States Environmental Protection Agency

COMMENT: *General.*
The commenter submitted comments regarding the proposed revisions to the rule, as well as the underlying technical support document which the OAQ previously submitted to the commenter as part of the State Implementation Plan ("SIP") approval process. The primary comments regarding the rule itself relate to the practical enforceablility of the rule and what testing methods will be used to demonstrate compliance with the rule. The other comments related to the air quality modeling demonstration which is part of the SIP approval process referred to above.

RESPONSE: The OAQ responds with respect to the enforceabliity issue that the Johns Manville facility is a Title V facility and will thus be subject to the Compliance Assurance Monitoring ("CAM") provisions of Title VII. In

addition, the proposed rule requires that periodic stack testing be performed to assess compliance with emission standards. The agency believes these provisions are sufficient to ensure that the rule's provisions are practically enforceable.

With respect to the issue of compliance testing, the OAQ responds that pursuant to 45CSR7A, the Director has the discretion to order other types of compliance testing necessary to demonstrate compliance with the rule.

Regarding the commenter's other comments regarding the modeling demonstration part of the SIP, the OAQ believes that the comments submitted by Johns Manville as part of this rule-making record adequately address those comments.

Commenter: **Johns Manville**

COMMENT: *General.*
The commenter supported the proposed revisions to the rule, and further provided comments responding to the comments of the United States Environmental Protection Agency.

RESPONSE: As stated above, the OAQ believes the proposed rule revisions comply with all applicable regulatory provisions, including those necessary to demonstrate compliance with the SIP. With respect to the underlying technical demonstration required as part of the SIP process, the OAQ intends to continue working with the Environmental Protection Agency and Johns Manville to resolve any outstanding issues.

Commenter: **Roger Snow**

COMMENT: *General.*
The commenter supported the proposed revisions to the rule.

RESPONSE: No response required.

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*** ACTIVITY REPORT ***
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RECEPTION OK

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CONNECTION TEL	303 9782333
CONNECTION ID	
START TIME	08/06 16:43
USAGE TIME	05'59
PAGES	4
RESULT	OK

Johns Manville

Johns Manville Corporation
Technical Center
P.O. Box 625005
Littleton, CO 80162-5005
303 978 2000

August 6, 1997

Mr. John H. Johnston, Chief
West Virginia Office of Air Quality
1558 Washington Street
Charleston, West Virginia 25311-2599

Via Fax # 304-558-3287

RE: Response to Comments made by the USEPA Concerning the Proposed Revisions to 45 CSR 7- To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations on July 28, 1997

Dear Chief Johnston:

In comments submitted by the USEPA on July 28, 1997, a number of concerns were made regarding the modeling study submitted by Johns Manville (JM) in support of its request to modify the above-referenced regulation. JM responded to those comments by letter to you dated August 1, 1997 and that letter is incorporated herein by this reference. However, additional USEPA comments were also submitted by letter dated July 28, 1997. The purpose of this letter is to summarize how USEPA's latest comments have been resolved. Please note that there was significant overlap between the two sets of USEPA comments; accordingly, resolution of some of the latest USEPA comments are the same as in our August 1, 1997 letter to you. Where there was no such overlap and the comment raised a new issue a series of conference calls was held with USEPA to address the new issues. These calls resulted in agreements which were made to resolve the new USEPA issues. Set forth below are both USEPA's comments and our understanding of the agreements resolving the issues.

Comment 4.1: Claim that ZOI is in error and requires re-modeling

In this comment, the USEPA is concerned about the information used to calculate the ZOI. *The comments provided below show that the modeling study was conducted appropriately and the ZOI is correct. Therefore, no further action will be required to address this issue.*

Comments 4.2: This multi-tiered comment involves the use of the screening procedures to exclude sources from the final modeling study and questions the methodology used to complete the study

In comments made by the USEPA, concern was expressed that Johns Manville may not have applied appropriate screening procedures to exclude certain regional sources. JM understood from the outset that use of the so-called "North Carolina Protocol" was discouraged by the EPA in screening out regional sources. For this reason, JM did not actually use that method

and instead applied a significantly more conservative standard to screen regional sources. This alternate method was applied because of very large volume of regional sources requiring screening. While this alternate method is perhaps in some minor respects similar to the "North Carolina Protocol," there are significant differences which make the alternate method more conservative . First, the screening criteria used is 200% of the values used to assess impacts under the "North Carolina Protocol." Second, all of the facility emissions were summed in applying the alternate screening method. These conservative measures reduce to nearly zero the chance that any screened source could have a significant gradient on the ZOI. In addition, the alternate screening methodology was used to reduce regional emitters that would likely screen out using the SCREEN3 method. Any facilities which did not screen out in this step were studied rigorously using the SCREEN3 model. Sources which caused a significant gradient on the ZOI were then modeled in the full ISCST3 analysis. *As agreed to by the USEPA, the approach used in the modeling study is not the "North Carolina Protocol, but rather a significantly more conservative alternative screening methodology. Therefore, the screening performed in the modeling is appropriate and will not require revision.*

In a comment made by the USEPA, it was questioned whether the appropriate significance level was applied to regional sources to determine a significant gradient. The values used to determine the significant gradient are similar to those used for PSD modeling studies. These concentrations are very low and are considered to be a conservative basis to decide if a regional source requires further study. *As agreed to by the USEPA, the screening concentration limits used in the modeling study are appropriate and do not require revision.*

Comment 5.1: Questions the enforceability of PM_{10} and modeled parameters of certain sources

The USEPA is concerned that the PM_{10} standard is unenforceable as written into the Regulation 7 amendments. The JM facility in Vienna is a Title V facility and will be subject to the Compliance Assurance Monitoring (CAM) provisions of Title VII. Accordingly, the plant will be submitting a CAM plan designed to assure that compliance with these and other permit conditions is achieved and maintained. In addition, the plant will be required to submit periodic compliance certifications based on the CAM plan. It is our understanding that such CAM and compliance certification programs are sufficient for sources with the ubiquitous pounds per hour mass emission limitation. In addition, the Regulation 7 amendments require that periodic stack testing be performed to assess compliance with the proposed emission standards after promulgation. These stack tests will augment an already large set of stack test data for this plant. (Indeed, the JM Vienna plant is probably the most

rigorously tested plant in the company with over 75 stack tests having been performed in the last 5 years.) *As agreed to by the USEPA, the PM_{10} emissions are in fact enforceable through the mass emission standard and the concentration based standard written into the Regulation amendments.*

The USEPA questioned the JM Facility grade elevation used in the modeling study. JM used facility drawings based on surveys conducted for each stack. These drawings indicate not only the plant grade, but the height of the stack and the top of the roof for all stacks at the facility. It is noted that because of the significant grade changes in the area, the topographic map is not appropriate to assess elevations inside the facility boundary. Significant grading and changes have occurred to the site which are not shown on the topographic map. *Because the facility plant grade, stack elevations and building elevations in the modeling study are correct and no revisions are required.*

The USEPA also questioned if actual stack heights were used in the modeling study because of the tilted stacks. JM did use actual stack heights of plume release in the modeling study. *As agreed to with the USEPA, no revisions will be necessary because the appropriate stack release height was used in the modeling study.*

Comment 5.5: Meteorological Data

The USEPA expressed concern regarding the meteorological data used in the modeling study. This comment was addressed in JM's August 1, 1997 letter. *As agreed to with the USEPA, this comment has been resolved and no further action is necessary.*

Comment 5.7: Use of correct elevation for Arrow Industries

The USEPA is concerned that the wrong elevation was used for the Arrow Industries Facility, a concrete batching facility in West Virginia. The source parameters were supplied by the WVOAQ and were verified by topographic maps. In some cases, it was impossible to verify exact source locations because the facility may have not been cooperative in providing additional data. For Arrow Industries, there was enough data available from both the WVOAQ files and topographic references to derive accurate stack elevations. In addition, the Arrow Industries facilities both screened out of the analysis and were not included in the final ISCST3 study. *Based on the above information, the Arrow Industries facility was assessed appropriately using the best data available and no revisions are necessary.*

Guideline on Air Quality Models (GAQM). *Therefore, as discussed with the WVOAQ and the USEPA, no further action is necessary for this comment.*

Comment #6: Different Approach on Short-Term vs. Annual North Carolina Screening

The USEPA is concerned that the modeling study screening analysis implemented the use of the North Carolina Screening Protocol differently for short-term 24 hour emissions than for annual emissions. A copy of the screening protocol is supplied in an appendix to the modeling study report. The North Carolina Screening Protocol was supplied to Johns Manville by the WVOAQ and clearly states that a different methodology is used to assess short-term emissions from annual emissions. Specifically, for short-term emissions, the distance factor is applied from the regional emissions source to the facility location under going the PSD change. For annual emissions, the distance factor is applied from the regional emissions source to the edge of the PSD source emissions impact "SIA" . In fact, because there have been concerns regarding the use of the North Carolina Protocol, Johns Manville used only a very conservative emissions impact methodology as a first-cut screen, then performed all of the final screening using SCREEN3 and allowable emissions. This methodology is fully discussed in the modeling study report. *Therefore, Johns Manville maintains that the screening performed using the North Carolina protocol was appropriate and requires no further analysis.*

Comment #7: SCREEN3 Screening

The USEPA has commented that Johns Manville may have screen sources inappropriately by estimating regional source impact only at the regional sources fenceline. As discussed in the modeling study report, screening estimated impacts from regional sources at distances beyond the fenceline, not just at the fenceline. The SCREEN3 model was not used to calculate regional source impacts inside its own fenceline. Impacts were predicted at distances at and beyond the fenceline to the maximum impact point. All of the model output information has been supplied to the WVOAQ. *Therefore, as agreed to by the USEPA and WVOAQ, the screening analysis is correct and does not need to be revised.*

Comment #8: Use of CARB Emissions Factors

The USEPA is concerned that the proper PM to PM_{10} emission factors were applied to convert emissions to PM_{10}. As stated and noted in the analysis, Johns Manville employed the use of AP-42 emission factors to estimate PM_{10} emission fractions where the information was available. Unfortunately, AP-42 is incomplete and many of the PM_{10} emission fractions are not supplied. In these cases, the CARB emission fractions were employed. In the modeling

study report, the source of the emission fractions was documented. The CARB emission fractions are only documented through the California Emission Inventory Development and Reporting System (CEIDARS). No other references to the emission fractions are available. Generally speaking, the emission fractions are conservative compared to AP-42 and therefore their use should not present a problem. *Johns Manville maintains that the use of AP-42 and CARB PM_{10} emission fractions where there are no AP-42 factors is appropriate to estimate PM_{10} emission from PM data. Therefore, no changes are required to the modeling study due to the use of PM_{10} emissions.*

Comment #9: Use of "Actuals" for Annual Modeling

The USEPA is concerned that the proper use of actual emissions be incorporated into the study. While this option was discussed with the WVOAQ, no actual emissions were used in the modeling study. The study was completed using allowable emissions for both the 24-hour short-term and annual analyses. *Therefore, as agreed to by the USEPA and WVOAQ, no changes are required for the modeling study.*

Comment #10: Ambient Background

The USEPA is concerned that the methodology employed by Johns Manville and agreed to by the WVOAQ will not reflect the true ambient background values for the modeling study. The study utilized three ambient background monitors using a methodology suggested by the WVOAQ to calculate short-term and annual ambient PM_{10} background concentrations. The USEPA maintains the ambient monitor closest to the facility should be the primary source of data to calculate ambient PM_{10} background values. Because the monitor is located very close to the facility, the monitor is regularly impacted from facility emissions. Simply using the data from this monitor would constitute a greater than typical "double-counting" situation. This would not be very productive as it would erroneously lead to non-compliance predictions of the NAAQS where the maximum modeled concentration values are predicted. *Therefore, Johns Manville is working with the WVOAQ and the USEPA to develop a reasonable methodology to use the data from the ambient PM_{10} monitor in Vienna, which is very close to the facility. Johns Manville has agreed to develop a protocol which discusses the proposed methodology to develop ambient background concentrations. This protocol will be submitted to the WVOAQ, and forwarded to the USEPA, for approval. The protocol is expected to be completed by the end of June, 1997. Upon approval of this protocol, Johns Manville will then recalculate all of the modeling prediction impacts using the appropriate ambient PM_{10} background concentration and submit this analysis to the WVOAQ.*

Comment #11: 30 Meter Winds

The USEPA is concerned that the modeling study could have been performed using 30 meter wind data instead of the 10 meter data used in the analysis. The 10 meter wind data was chosen due to large variability of regional sources which were included in the modeling study. The sources were located at varying release heights and elevations. Many of the sources were below 10 meters. While the Johns Manville sources are the primary sources of interest, the regional sources controlled the final outcome of the study due to their impacts. In addition, because the ISCST3 model was used, there is no requirement to use data from the height of the plume release of the primary sources as exists when using models such as RTDM. The data was collected at the 30 meter height so that the RTDM could be used if necessary. If Johns Manville used the 30-meter winds to model its own emissions, and 10 meter data to evaluate the regional emissions, it would have to combine the data in a manner acceptable to the USEPA. There are currently no post processing models available which will allow this to be completed. Therefore, Johns Manville would need to develop additional programming code to perform these tasks which would place an unreasonable burden on the company, the WVOAQ and the USEPA in evaluating and certifying that the methodology was correct. *As agreed to by the USEPA and WVOAQ, no changes will be required to the use of 10 meter wind data in the modeling study.*

Comment #12: Disks and Figures

The USEPA is concerned that they did not receive the electronic files associated with the modeling study. *As agreed to by the WVOAQ and USEPA, the WVOAQ will forward the electronic files to the USEPA.*

Comment #13: Not " source specific"

The USEPA is concerned that any other source which meets the description as a fiberglass manufacturing facility may be able to employ the "source-specific" emission rates intended for the Vienna, West Virginia facility. Johns Manville is not concerned that the rule is source- specific. If the state wishes to modify the rule to make it more source-specific, Johns Manville will likely agree to the change. Regardless, the company would like input to any decision regarding the language used in the rulemaking. *At this time, the decision to change the rulemaking to make it more source-specific is to be made by the WVOAQ.*

Comment #14: Other Pollutants

The USEPA is concerned that other pollutants could be affected by the emission limitation increases proposed as part of the rulemaking. Johns Manville is currently working with the

WVOAQ to develop emission limitations for formaldehyde and VOC for facility operations under Regulations 21 and 27. The proposed rulemaking will not result in any emission limit changes to the facility other than for PM_{10}. As to particulate, it is important to remember that the proposed amendments will not result in any actual increase in emissions to the air. *As agreed, no further action will be required for this comment since the proposed rulemaking will not affect actual or potential emission for any other pollutants.*

If you have any questions regarding these comments, please feel free to contact me at 303-978-2161 anytime.

Sincerely,

Jeffrey A. Tarde, CCM
Manager, Air Quality

Tammy
John J
7/30/97 Karen
SKA

WEST VIRGINIA MANUFACTURERS ASSOCIATION

2001 Quarrier Street, Charleston, WV 25311
Telephone: (304) 342-2123
FAX: (304) 342-4552

W.V. DIV. OF ENVIR. PROTECT.
OFFICE OF AIR QUALITY

1997 JUL 30 P 1:18

RECEIVED

July 29, 1997

John Johnston, Chief
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311

Re: Comments on Proposed Revisions to 45 C.S.R. 7 "To Prevent and Control Particulate Air Pollution From Manufacturing Process Operations"

Dear Chief Johnston:

The West Virginia Manufacturers Association takes an active interest in the regulatory impact on the Office of Air Quality's regulations on its members. This is especially true with regard to the duplicate source provisions of Regulation 7 as they pertain to our member Johns Manville International, Inc.'s operations in Vienna, West Virginia. The duplicate source provisions are generic in nature and do not account for the unique characteristics of the flame attenuation fiberglass manufacturing process conducted by Johns Manville. The specific emission limits proposed as revisions to Regulation 7 permit Johns Manville the operational flexibility it needs to remain competitive with other manufacturers located in other states, while adequately protecting public health and the environment. The specific emission limitations are the result of extensive research and computer modeling. For the reasons set forth above, the Manufacturers support the proposed revisions to Regulation 7 to address the inadequacies and inequities of the duplicate source provisions of Regulation 7. Our Association is also supportive of "bubble" approaches to air quality control such as that reflected in the proposed rule changes for this facility.

Respectfully submitted this 29th day of July, 1997

R. L. Foster

Robert L. Foster, Chair
Environmental Safety & Health Committee
West Virginia Manufacturers Association
2001 Quarrier Street
Charleston, WV 25311

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Mr. John A. Benedict, Assistant Chief
Office of Air Quality
Division of Environmental Protection
1558 Washington Street, East
Charleston, West Virginia 25311-2599

Dear Mr. Benedict:

Thank you for the opportunity to review and comment on the proposed Legislative/Emergency Rule 45CSR7 - "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations." Please include this letter as a comment in the official record of the public hearing.

The Rule; The Technical Rational (sic) Document; and the technical support document "PM10 Ambient Air Quality Analysis To Support A SIP Amendment Schuller International's Parkersburg, West Virginia Manufacturing Plant" have been reviewed. The enclosed comments document EPA's determination that there are unacceptable errors and questionable elements of the demonstration.

Some of the major problems found in the submittal are:

- The stack base elevations of the Johns Manville (formerly Schuller) stacks appear to be exaggerated by as much as 14 feet.
- The zone of influence is, therefore, incorrectly specified.
- The emission limits are unenforceable as a practical matter.
- The issue of testing for condensible particulate matter is not satisfactorily resolved.
- The screening of external sources is done using an unacceptable technique.
- The background concentration is incorrectly determined.

If West Virginia intends to submit this rule to EPA as a revision to the state implementation plan (SIP), correcting the specified problems will increase the likelihood that it will be approved.

The enclosed comments are made related to identified sections of the November 16, 1996, report prepared for Schuller. The West Virginia Office of Air Quality Technical Rationale document contains abbreviated versions of the same information.

EPA is aware of the singular nature of the circumstances leading to the proposed rule. We are prepared to assist West Virginia in the development of an approvable SIP revision. Please contact Makeba A. Morris, Chief, Technical Assessment Section at (215) 566-2187 if you have additional questions.

Sincerely,

Judith Katz, Director
Air, Radiation & Toxics Division

Enclosure

Comments On
PM10 AMBIENT AIR QUALITY ANALYSIS
TO SUPPORT A SIP AMENDMENT
SCHULLER INTERNATIONAL'S PARKERSBURG,
WEST VIRGINIA MANUFACTURING PLANT
November 16, 1996

4.1 Determine the Facility Zone of Influence and Modeling Domain

As stated below the apparent errors in source specification and selection of meteorological data base necessitate a recalculation of the Zone of Influence (ZOI).

4.2 Develop a Regional Particulate Emissions Inventory

As stated in the April 5, 1995, letter from Makeba Morris to John Benedict providing comments on the Modeling Protocol, the North Carolina protocol approach for screening sources is not approved by EPA. The use of the modified North Carolina Protocol approach is unacceptable. The purpose of screening sources is to determine those sources, outside the ZOI, which cause a significant concentration gradient in the ZOI. Those sources which do not cause a significant concentration gradient in the ZOI are presumed to be adequately represented by background estimates. Those sources which do cause a significant concentration gradient in the ZOI cannot be characterized by a background estimate and must be explicitly modeled. The North Carolina Protocol methodology is incapable of determining a concentration gradient.

The further screening using SCREEN3 is based upon a misinterpretation of the significant impact concentrations of 5.0 μg/m3 for the 24-hour averaging period and 1.0 μg/m3 for the annual averaging period. The significant impacts are specified in 40 CFR 51.166 with respect to the Prevention of Significant Deterioration (PSD) program. Major sources are not considered to contribute to violations of the PM-10 national ambient air quality standards (NAAQS) if their contribution is less than the specified impact. This creative use of significance levels does not the address the goal, as stated above, of separating sources that need not be modeled because they do not cause a significant concentration gradient from the remaining sources which must be explicitly modeled.

4.3 Locate Appropriate PM_{10} Background Concentration Data

The several errors in this section will be specified in the discussion of Section 6.

5.0 MODELING INPUT DATA

5.1 Schuller Emissions Inventory and Model Input Parameters

There are two problems with the emissions limits specified as emission rates. First, they are based on the particulate emissions as measured by USEPA's Method 5. Because there is no agreement as to the extent to which gaseous organic matter may condense to particulate matter the actual particulate emission rate which should be modeled may be underestimated. This issue cannot be resolved until Schuller (now Johns Manville) completes the program to derive an appropriate test method.

The second problem is that the emission limits, specified as pounds per hour, is not enforceable as a practical matter. The emission rate can only be determined by a stack test, preferably using EPA Method 201. Therefore, unless Johns Manville is required to perform frequent stack tests, the emission limits cannot be enforced. Because EPA realizes that such frequent stack testing is impractical the emission limits should be specified in terms that can be more easily verified, such as a process weight rate or mass per volume. The emission rates to be modeled should then be determined as required in Table 9-1 of Appendix W to 40 CFR Part 51, Guideline on Air Quality Models (GAQM).

In addition, the plant grade elevation is estimated to be 634 feet above MSL. An inspection of the Parkersburg topographic map shows that the building on which the stacks are located is on a 620-foot contour line and some distance from a 640-foot contour. Admittedly, there could be unusual ground slopes in the area. However, it appears that the modeling results are improperly receiving "credit" for up to 14 feet of elevation that does not exist.

Furthermore, stack gas exit velocities were lowered to account for the tilted configuration of some of the stacks. It is not clear that the stack heights themselves have been similarly adjusted. The release point should be specified in three dimensions. Are the listed stack heights for the tilted

stacks the actual height of the stack or the length of the stack?

5.2 Regional Emissions Inventory and Model Input Parameters

Refer to the comments on section 4.2. The purpose of the screening of facilities outside the ZOI is to determine those sources which can be characterized by the background estimates. The primary test for such a determination is whether or not the source causes a significant concentration gradient in the ZOI.

5.5 Meteorological Data

No rationale is provided for selecting the 10-meter wind direction and speed meteorological data for all analyses. The 10-meter height is lower than 20 of the 23 Johns Manville stack heights (19 if you count the 10.1 meter stack) and could not possibly be at plume height. The April 5, 1995, letter from Makeba Morris stated . . . "For each of the other sources at Schuller, the selection of sensor height should be made with a source-by-source evaluation of expected plume heights." It could be expected that the plume height of most of the Johns Manville sources would be better represented by the 30-meter wind data.

5.7 Modeling Terrain Data

The April 5, 1995, letter from Makeba Morris identified questions about the terrain elevations for the Arrow Industries plant. The source listing of Table 5-4 has eight points at two Arrow Industries plants all specified at the same location but terrain elevations ranging from 765 to 810 feet. The correct location and elevation of each source should be specified.

6.2 Development of Appropriate Background Values

The procedures recommended by WVOAQ do not follow the GAQM recommendations. Selecting the minimum value from a number of monitors has been occasionally used as a simple surrogate for a more rigorous direction specific background determination. There is no basis, however, for the assertion that the specification of background follows the USEPA *PM_{10} SIP Development Guideline*. (The citation in the text for the Guidelines incorrectly

identifies them as 1986. The citation in the References section correctly specifies 1987). The selection of the highest fifth-high 24-hour average value over four years is not specified in the Guidelines for determining background. It is assumed that the procedure is derived from an incorrect interpretation of the determination of design concentration. The USEPA *PM_{10} SIP Development Guideline* state:

> "For routine model application with five full years of 24-hour concentration estimates, the PM_{10} design concentration of critical interest becomes the highest of sixth-highest concentrations for the entire receptor network."

The procedure used by Schuller, although creative, is incorrect for at least two reasons. There are not four full years of data, since the data were collected only every six days. The selected value, if there were full data, should be the fifth highest from the entire data set not the highest fifth highest from any year. The more appropriate way to select the 24-hour background value, consistent with the approach Schuller attempted, would be determine a value in a frequency distribution that corresponds to a frequency of 1/365.