

West Virginia Department of Environmental Protection

*Earl Ray Tomblin
Governor*

Division of Air Quality

*Randy C. Huffman
Cabinet Secretary*

Permit to Modify



R13-1977D

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:
AL REC, LLC
Millwood
035-00006

*John A. Benedict
Director*

Issued: **DRAFT** • Effective: **DRAFT**

This permit will supercede and replace Permit R13-1977C issued on January 20, 2009.

Facility Location: Millwood, Jackson County, West Virginia
Mailing Address: Jackson County Industrial Park
Facility Description: Secondary Aluminum Processing Plant
SIC Code: 3341
NAICS Code: 331314
UTM Coordinates: 427.24 km Easting • 4,306.18 km Northing • Zone 17
Permit Type: Modification
Desc. of Change: Modification submitted as a result of Consent Order CO-R34-E-2012-04 to primarily increase annual aggregate throughput of the RTF's. AL REC has also included updates/clarifications on facility equipment and plant layout.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is not subject to 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device(s)
101	521, 621, 721	Rotary Tilting Furnace 1	1990	7,500 lb-charge/hr 12.00 mmBtu/hr	Cyclone/ Baghouse(s) ⁽¹⁾
102	521, 621, 721	Rotary Tilting Furnace 2	1990	7,500 lb/hr 12.00 mmBtu/hr	Cyclone/ Baghouse(s) ⁽¹⁾
301	321	NMP Cooler/Sorter	1990	4,500 lb/hr	PE - Inside Building

(1) The RTFs can vent to three (3) baghouses: BH-501 (EP 521), BH-601 (EP 621), and BH-701 (EP 721). Only BH-521 is in series with a cyclone. All baghouses utilize a single lime injection point located upstream from all baghouses.

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	pph	Pounds per Hour
DAQ	Division of Air Quality	ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per million by volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supercedes and replaces previously issued Permit R13-1977C. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-1977A, R13-1977B, R13-1977C, R13-1977D, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; **[45CSR§§13-5.11 and 13-10.3]**
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed

equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

- 3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
[WV Code § 22-5-4(a)(15)]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each

occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

If to the USEPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal

requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Only those emission units as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility. In accordance with the information filed in Permit Application R13-1977D, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, and shall use the specified control devices.

4.1.2. The rotary tilting furnaces (RTFs) shall be operated according to the following conditions:

- a. Aggregate emissions from the RTFs, as emitted from Emission Points 521, 621, 721 or a combination thereof, shall not exceed the following limitations:

Table 4.1.1. Furnace/Cooler Emission Limits

Pollutant	Hourly (lb/hr)	Annual (ton/yr)
CO	1.68	7.36
HCl	1.16	5.08
NO _x	2.00	8.76
PM _{2.5}	3.16	13.82
PM ₁₀	3.16	13.82
PM	3.16	13.82
SO ₂	0.02	0.06
VOC	0.12	0.50

- b. Aggregate emissions from the RTFs, as emitted from Emission Points 521, 621, 721 or a combination thereof, shall not exceed 15 µg of D/F TEQ per Mg (2.1 × 10⁻⁴ gr of D/F TEQ per ton) of feed/charge.

[40 CFR §63.1505(i)(3)]

- c. At all times an RTFs is in use, emissions from the furnace shall be collected and vented to a baghouse for control. At all times, lime injection shall be used prior to the baghouse.
- d. If both RTFs are in use, then, at a minimum, two of the baghouses must be used to control emissions from the RTFs. Any combination of two baghouses may be used.
- e. The maximum aggregate charge to the furnaces (including both aluminum and flux) shall not exceed 65,700 tons/year.
- f. The furnaces shall be fired only with natural gas/oxygen. Aggregate use of natural gas in the furnaces shall not exceed 175,200,000 cubic feet/year.

- 4.1.3. The NMP cooler and a rotary furnace shall not operate concurrently when exhausting to only one baghouse.
- 4.1.4. The permittee shall minimize the emissions of fugitive particulate matter in accordance with the following:
 - a. The transfer points identified in the following table shall not exceed the specified throughput and shall utilize the specified control devices:

Table 4.1.5.a.: Transfer Points Limits

Transfer Point ID No.	Transfer Point Description	Maximum Throughput (tons/year)	Control Device ⁽¹⁾
T1	Railcar (raw material) to enclosed storage area	65,700	PE
T2	Truck (raw material) to enclosed storage area		PE
T3	Endloader (raw material) to Rotary Furnace 1	65,700	PE
T4	Endloader (raw material) to Rotary Furnace 2		PE
T5	Rotary Furnace 1 to NMP Container	19,710	PE
T6	Rotary Furnace 2 to NMP Container		PE
T7	NMP Container to NMP Hopper	19,710	PE
T8	NMP Hopper to NMP Cooler	19,710	PE
T9	NMP Cooler to NMP Sorter	19,710	PE
T10	NMP Sorter to NMP Totes	19,710	PE
T11	NMP Tote to NMP Storage Area	19,710	PE
T12	NMP Storage Area to Truck Loadout	19,710	PE
T13	Cyclone 1 to Dust Bags	2,350	N
T14	Baghouse BH-701 to Dust Bags	2,350	N
T15A	Baghouse BH-501 to Dust Bags	2,350	N
T15B	Baghouse BH-501 to Dust Bags	2,350	N
T16	Baghouse BH-601 to Dust Bags	2,350	N

(1) PE = Partial Enclosure (inside plant building).

- b. A physical barrier, that will not interfere with vehicle traffic or proper ventilation for employees, shall be maintained to prevent fugitive particulate emissions from leaving the building. In the event that fugitive emissions exit the building, doors shall be immediately closed and/or operations shall be temporarily shut down until dusting conditions subside.
- c. Material tracked out of buildings to all facility grounds, including parking lots and highway entrances, shall be minimized.
- d. Overhead fans, located in the roof of the production building, are to be locked out of operation. The fans are not to be used in the future and the openings for the fans in the roof of the production building are to be permanently blocked.

- e. All bags of material, including dross, shall be stored in an enclosed storage building to prevent contact with moisture.
 - f. The permittee shall maintain particulate matter 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.
- 4.1.5. Manufacturing process source operations located at the Millwood plant are subject to the applicable limitations and standards under 45CSR7, as given below under (a) through (d).
- a. The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any manufacturing process source operation which is greater than twenty (20) percent opacity, except as noted under 4.1.6.b.
[45CSR§7-3.1]
 - b. The provisions of subsection 4.1.6.a shall not apply to smoke and/or particulate matter emitted from the Kiln which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]
 - c. The permittee shall not cause, suffer, allow or permit particulate matter to be vented into the open air from any manufacturing process source operation, or from all air pollution control equipment installed on any manufacturing process source operation, in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.
[45CSR§7-4.1]
 - d. Mineral acids shall not be released from any manufacturing process source operation, or from all air pollution control equipment installed on any manufacturing process source operation, in excess of the quantity given in Table 45-7B found at the end of 45CSR7.
[45CSR§7-4.2]
- 4.1.6. Manufacturing process source operations located at the Millwood Plant are subject to the applicable limitations and standards under 45CSR10, as given below under (a).
- a. The permittee shall not cause, suffer, allow or permit the emission into the open air from any manufacturing process source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume.
[45CSR§10-4.1]
- 4.1.7. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]
- 4.1.8. The Millwood Plant shall comply with all applicable operating requirements under 40 CFR 63, Subpart RRR, including the requirements as given below under (a) through (c):
- a. **Labeling.** The owner or operator must provide and maintain easily visible labels posted at each

group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln that identifies the applicable emission limits and means of compliance, including:

- (1) The type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).
- (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g ., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.

[40 CFR §63.1506(b)]

b. **Capture/collection systems.** For each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:

- (1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of “Industrial Ventilation: A Manual of Recommended Practice” (incorporated by reference in §63.1502 of this subpart);
- (2) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
- (3) Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

[40 CFR §63.1506(c)]

c. **Feed/charge weight.** The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or $\mu\text{g/Mg}$ (gr/ton) of feed/charge must:

- (1) Except as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and
- (2) Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.
- (3) The owner or operator may chose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:
 - (i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and
 - (ii) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.

[40 CFR §63.1506(d)]

4.2. Monitoring, Source-Specific Record-Keeping, and Compliance Demonstration Requirements

- 4.2.1. For the purposes of demonstrating compliance with maximum furnace charge limits set forth in 4.1.2.(e), the permittee shall maintain monthly and rolling twelve month records of the amount of material that is charged into the furnaces.
- 4.2.2. For the purposes of demonstrating compliance with maximum natural gas usage limits set forth in 4.1.2.(f), the permittee shall maintain monthly and rolling twelve month records of the amount of natural gas that is combusted in the furnaces.
- 4.2.3. For the purpose of determining continuing compliance with the applicable opacity limits of 45CSR7, the permittee shall conduct visible emission checks and/or opacity monitoring for all material handling emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per week with a maximum ten (10) days between consecutive readings. These checks shall be performed for a sufficient time interval to determine if the source has any visible emissions during periods of facility operation and appropriate weather conditions.

If visible emissions are identified at a source for three (3) weeks in a calendar month, the permittee shall conduct an opacity reading at those sources using the procedures and requirements of METHOD 9 or 45CSR7A, as applicable and as soon as practicable, but within seventy-two (72) hours of the final visual emission check for the month.

The permittee shall maintain records of all Method 9 or 45CSR7A opacity readings and make these records available to the Director upon request.

- 4.2.4. The Millwood Plant shall comply with all applicable monitoring requirements under 40 CFR 63, Subpart RRR, including the requirements as given below under (a) through (g):
 - a. Operation, maintenance, and monitoring (OM&M) plan. The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator of an existing affected source must submit the OM&M plan to the responsible permitting authority no later than the compliance date established by §63.1501(a). The owner or operator of any new affected source must submit the OM&M plan to the responsible permitting authority within 90 days after a successful initial performance test under §63.1511(b), or within 90 days after the compliance date established by §63.1501(b) if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of this subpart. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures. If the permitting authority determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions

will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority. Each plan must contain the following information:

- (1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.
- (2) A monitoring schedule for each affected source and emission unit.
- (3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in §63.1505.
- (4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
 - (i) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and
 - (ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part.
- (5) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.
- (6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:
 - (i) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and
 - (ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.
- (7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
- (8) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in paragraph (o) of this section for each group 1 furnace not equipped with an add-on air pollution control device.

[40 CFR §63.1510(b)]

- b. **Labeling.** The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln at least once per calendar month to confirm that posted labels as required by the operational standard in §63.1506(b) are intact and legible.

[40 CFR §63.1510(c)]

c. **Capture/collection system.** The owner or operator must:

- (1) Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and
- (2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in §63.1506(c) and record the results of each inspection.

[40 CFR §63.1510(d)]

d. **Feed/charge weight.** The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

- (1) The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.
- (2) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

[40 CFR §63.1510(e)]

e. **Fabric filters and lime-injected fabric filters.** The owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart must install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (f)(1) of this section or a continuous opacity monitoring system as required in paragraph (f)(2) of this section. The owner or operator of an aluminum scrap shredder must install and operate a bag leak detection system as required in paragraph (f)(1) of this section, install and operate a continuous opacity monitoring system as required in paragraph (f)(2) of this section, or conduct visible emission observations as required in paragraph (f)(3) of this section.

- (1) These requirements apply to the owner or operator of a new or existing affected source or existing emission unit using a bag leak detection system.
 - (i) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

- (ii) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the “Fabric Filter Bag Leak Detection Guidance,” (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
- (iii) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
- (iv) The bag leak detection system sensor must provide output of relative or absolute PM loadings.
- (v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
- (vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.
- (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
- (x) Following initial adjustment of the system, the owner or operator must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

[40 CFR §63.1510(f)]

- f. **Fabric filter inlet temperature.** These requirements apply to the owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter to comply with the requirements of this subpart.
 - (1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in subpart A of this part.

- (2) The temperature monitoring device must meet each of these performance and equipment specifications:
 - (i) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
 - (ii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1512(n).
 - (iii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

[40 CFR §63.1510(h)]

- g. **Lime injection.** These requirements apply to the owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart.

- (1) The owner or operator of a continuous lime injection system must verify that lime is always free-flowing by either:
 - (i) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or
 - (ii) Subject to the approval of the permitting agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or
 - (iii) Subject to the approval of the permitting agency, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the owner or operator must promptly initiate and complete corrective action.

- (2) The owner or operator of a continuous lime injection system must record the lime feeder setting once each day of operation.

- (3) An owner or operator who intermittently adds lime to a lime coated fabric filter must obtain approval from the permitting authority for a lime addition monitoring procedure. The permitting authority will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.

[40 CFR §63.1510(i)]

- 4.2.5. The permittee shall meet all applicable monitoring, source-specific record-keeping, and compliance demonstration requirements, including any not specified in this permit, as given under 45CSR7, 45CSR10, and 40 CFR 63, Subpart RRR.

4.3. Testing Requirements

- 4.3.1. At such reasonable time(s) as the Director may designate, the permittee shall conduct, or have conducted, performance tests to determine compliance with the emission limits under 4.1.1 according to the procedures under 3.3.1. and using the test methods given below (unless approval for alternative test methods is granted in writing by the Director).

Table 4.3.1: Testing Requirements

Pollutant	Test Method ⁽¹⁾
CO	Method 10B
NO _x	Method 7E
PM	Method 5/Method 202
SO ₂	Method 6C
VOCs	Method 18/25A
HCl	Method 26A

(1) All test methods refer to those given under 40 CFR 60, Appendix A

- 4.3.3. The permittee shall meet all applicable performance testing requirements, including any not specified in this permit, as given under 45CSR7, 45CSR10, and 40 CFR 63, Subpart RRR.

4.4. General Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.

- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
 - f. Steps taken to correct the malfunction.
 - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. The permittee shall meet all applicable record-keeping requirements, including any not specified in this permit, as given under 45CSR7, 45CSR10, and 40 CFR 63, Subpart RRR.

4.5. Reporting Requirements

- 4.5.1. The permittee shall meet all applicable reporting requirements, including any not specified in this permit, as given under 45CSR7, 45CSR10, and 40 CFR 63, Subpart RRR

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

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- ¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.