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Emissions to Air

JW Aluminum – Mt Holly, SC Facility

Department of Health and Environmental Control (DHEC) – TV-0420-0033r2

United States Environmental Protection Agency (EPA) – 40 CFR Part 63 Subpart RRR (Major Source)

JW Aluminum – Russellville, AR Facility

Arkansas Department of Energy and Environment (ADEQ) – 1659-AOP-R8


United States Environmental Protection Agency (EPA) – 40 CFR Part 63 Subpart RRR (Area Source)

Air Emission Monitoring Plan

The goal of the emissions monitoring plan is to minimize exposure to and impacts from emissions to air at the JW Aluminum Mt. Holly, SC and Russellville, AR facilities. The majority of the emissions reduction mechanisms described in this plan are specific conditions of each facility’s operating permit or specified within subpart RRR.

Review of permits and emissions

Title V air operating permits are valid for a period of five years after which the facility must submit an application for DHEC and ADEQ to review and initiate a period of public comment leading to operating permit renewal. The Title V permitting process acts as an external risk assessment on the potential impacts to air associated with JW Aluminum operating facilities. During the permitting process, maximum short-term emissions rates have been verified for adherence with Acceptable Ambient Levels (AALs) surrounding our facilities through air dispersion modeling and other SCDHEC/ADEQ approved analysis. The air dispersion modeling has demonstrated that JW Aluminum’s operations will not interfere with the attainment and maintenance of any state or federal ambient air quality standards. Internally, risk assessments are evaluated anytime we have an upset condition that leads to excess emissions and/or a facility process change. Facility process changes are captured in either the Engineering Charge Request (ECR) process or the Capital Appropriations Request (CAR) process. This plan is updated at the conclusion of an updated risk assessment.

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Source Testing

Source testing is required at least every five years. These emissions results are used to determine compliance with TV permit and subpart RRR emission standards. They are also used in internal calculations to determine site wide emissions.

Mt Holly Source Testing Requirements: Baghouse 1 (Melting Furnace 1 & 2), Baghouse 2 (Melting Furnace 3 & 4), Hot Mill, Kmill/Imill Wet Scrubber.

Russellville Source Testing Requirements: Melting Furnace, Cold Mill, Foil Mill, Annealing Furnaces.

Emissions to Air Inventory (Voluntary Disclosure)

Mt Holly, SC and Russellville, AR facilities publicly disclose material emissions to air from our processes in the annual JW Aluminum Sustainability Report. Emissions that are determined to be material are PM, NOx, VOC, HCL, and DF.

Emissions to Air Inventory (Regulatory Disclosure)

Mt. Holly, SC & Russellville, AR - Air Emissions Reporting Requirements (AERR) – Emissions Inventory is required for both the Mt. Holly, SC and Russellville, AR facilities. Both facilities are on a triennial reporting schedule.


Mt. Holly, SC - Emission Calculations for PM, PM10, PM2.5, NOx, and VOC: This emission spreadsheet is updated internally monthly and submitted to SCDHEC semi-annually and made available during facility inspections. JW Aluminum maintains a twelve-month rolling sum of the emissions database.

Facility to Agency Reporting

Mt. Holly, SC Facility:

DHEC TV-0420-0033r2 Compliance Monitoring Report: This report is submitted semi-annually and describes JW Aluminum’s environmental performance for each required permit condition.

EPA Subpart RRR Excess Emission Reporting (Major Source): This report is submitted semi-annually and describes environmental performance related to all subpart RRR requirements.

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EPA Title V Annual Compliance Certification: This report is submitted annually and includes a line-by-line review of compliance conditions listed in the TV operating permit.

Russellville, AR Facility:

ADEQ 1659-AOP-R8 Compliance Monitoring Report: This report is submitted semi-annually and describes JW Aluminum’s environmental performance for each required permit condition.


EPA Subpart RRR Excess Emission Reporting (Area Source): This report is submitted semi-annually and describes environmental performance related to all subpart RRR requirements.

EPA Title V Annual Compliance Certification: This report is submitted annually and includes a line-by-line review of compliance to conditions listed in the TV operating permit.

Maintenance Requirements for Emission Sources

Title V Operating Permits TV-0420-0033r2 (Mt. Holly) and 1659-AOP-R8 (Russellville) require specific recurring maintenance on emission sources and pollution control devices to ensure they continue to operate as designed and permitted. These specific maintenance tasks are tracked within the JWA’s e-Maintenance software system. The e-Maintenance system provides a record of completion and corrective action if need.

40 CFR Part 63 Subpart RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production (NESHAP Subpart RRR) requires that all secondary aluminum manufactures maintain an Operation, Maintenance and Monitoring Plan (OM&M). There is a plan for each facility. The plan details how JW Aluminum will operate and maintain subpart RRR subject sources and control devices at the facility to ensure they operate within the confines of the regulation. The OM&M plans are reviewed annually and updated when needed to meet facility changes or updated method to achieve compliance.

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Monitoring Requirements for Emission Sources and Control Devices

Mt. Holly, SC Facility:

Melting/Holding Furnaces: Total Charge Rate, Flux Charge Rate, Coated Charge Rate, RRR Labeling Requirements, Natural Gas Use

Baghouses: Inlet BH Temperature, Lime Injection Rate, Differential Pressure, Bag Leak Detection System, Weekly Operation Check

Degasser: Flux Injection rate, RRR Labeling Requirements

Hot Mill Mist Eliminator: Stage 1 Differential Pressure, Stage 2 Differential Pressure, Weekly Operation Check

K/I Mill Scrubber: Lean Oil Flow Rate, Differential Pressure, Weekly Operation Check

Cold Mill: Fan Amps, Weekly Operation Check

Annealing: Start/Shutdown records, Natural Gas Use


Russellville, AR Facility:

Melting/Holding Furnaces: Opacity Observations, Total Charge Rate, Flux Charge Rate, Coated Charge Rate, RRR Labeling Requirements

20 Mill: Opacity Observations, Fan Amps

22 Mill: Opacity Observations, Fan Amps, Differential Pressure

Annealing Furnaces: Opacity Observation

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Environmental Compliance Tasks and Review

JW Aluminum maintains compliance tasks and dates within Smartsheet. Smartsheet tracks each individual compliance and reporting requirements for all applicable regulations. Smartsheet tasks are updated as they are completed and reviewed monthly for final review.

Mt. Holly location reviews compliance tasks completion on a weekly basis. A summarized review of compliance performance is performed weekly and sent to plants manager, Maintenance Managers, Process Engineer’s, SME’s.

Russellville, AR reviews compliance tasks completion on a monthly basis. The report is summarized and sent to the Plant Manager, Maintenance Manager, and Process Engineers.

The weekly and monthly reviews are a key verification step used to ensure all the environmental requirements are met in their required timeframe. If a task is missed or determined to be out of range, corrective action takes place.

Air Emission Reduction Plan Benchmark Targets

1. Weekly – 100% completion of environmental required monitoring recordkeeping
2. Weekly – 0 salt flux exceedances
3. Weekly – 0 coated charge exceedances
4. Weekly – 100% on time completion of environmental maintenance
5. Weekly – Ensure pollution control equipment operate within established ranges



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