

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: IMPERIAL ALUMINUM – SCOTTSBORO, LLC.
FACILITY NAME: IMPERIAL ALUMINUM – SCOTTSBORO, LLC.
LOCATION: SCOTTSBORO, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
705-0044-X005	Aluminum Melting and Refining Tilting Rotary Furnace # 2 with Baghouse

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol. and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

**IMPERIAL ALUMINUM – SCOTTSBORO, LLC.
SCOTTSBORO, ALABAMA
(PERMIT NO. 705-0044-X005)
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
7. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
8. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.
9. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
10. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

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11. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
12. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
13. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.
14. If this plant relocates to another site, this plant's Air Permit remains valid for this site unless or until it is revoked for failure to comply with ADEM Air Division Rules and Regulations. The owner or operator of this plant must provide written notification of the intent to relocate the plant to this site at least two weeks in advance. The written notification should include the planned construction beginning date and the projected startup date. Failure to provide this written notification is a violation of this permit condition and is grounds for revocation of this permit.
15. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
16. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
17. The furnace is subject to 40 CFR 63 Subpart RRR "National Emission Standards for Hazardous air Pollutants for Secondary Aluminum Production."
18. The furnace is subject to visible emission restrictions for stationary sources as stated in ADEM Administrative Code 335-3-4-.01(1)(a-b). Compliance with opacity standards in the Rule shall be determined by conducting observations in accordance with 40 CFR Part 60 Reference Method 9.
19. The particulate matter emission rate shall not exceed the lesser of 6.02 lbs/hr or the rate determined by ADEM Administrative Code 335-3-4-.04(1). Compliance with particulate matter limits shall be determined by 40 CFR Part 51 Appendix M Reference Method 201A and 202.
20. The HCl emission rate shall not exceed 0.75 lb/hr. Compliance with HCl limits shall be determined by 40 CFR Part 60 Reference Method 26A.
21. Facility-wide emission rates of any HAP shall not exceed 9.95 tpy.
22. Emissions of Dioxins/Furans shall not exceed 15 µg of D/F TEQ per Mg of feed (2.1E-4 grains of D/F TEQ per ton of feed).

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23. The Permittee shall design and install the control device in accordance to ACGIH guidelines and operate it consistent with the Operation, Malfunction, and Maintenance Plan.
24. The Permittee shall operate a device that records the weight of each charge and operate it in accordance with the OM&M plan as outlined in 40 CFR 63.1510(b).
25. Identification, operating parameter ranges and operating requirements shall posted at affected sources and emission units.
26. If a bag leak detection system is used, the Permittee shall initiate corrective action within 1-hr of a leak alarm; operate the furnace such that alarm does not sound more than 5% of operating time in each 6-month period; and complete corrective action in accordance with the OM&M plan.
27. The Permittee shall maintain the average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test +14 °C (+25 °F).
28. The Permittee shall maintain the reactive flux injection rate, in kg/Mg or lb/ton, at or below the rate used during the performance test for each furnace cycle.
29. The Permittee shall maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems and maintain feeder setting at or above the level established at the performance test for continuous injection systems.
30. The Permittee shall operate sidewall furnaces such that the level of molten metal is above the top of the passage between sidewall and hearth during reactive flux injection, unless the hearth is also controlled.
31. The Permittee shall conduct an annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH Guidelines. Inspection includes volumetric flow rate measurements or verification of a permanent total enclosure using EPA Method 204.^d
32. The Permittee 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 furnace over the same operating cycle or time period used in the performance test. The accuracy of the measurement must be within $\pm 1\%$ of the actual weight. The scale shall be calibrated according to manufacturer's instructions or every six (6) months, whichever is sooner.
33. The Permittee must install, calibrate, maintain, and continuously operate a bag leak detection system.
34. The Permittee 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. 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.

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35. The Permittee must verify that lime is always free-flowing by inspecting each feed hopper or silo at least once each 8-hour period and record the results of each inspection. If the lime is not free-flowing, the frequency of inspections must be increased to once every 4-hour period for the next three days.
36. If a continuous injection system is used, the Permittee must record the lime feeder setting once each day of operation.
37. The Permittee must verify that the lime injection rate (in lb/hr) is no less than 90% of the injection rate used in the performance test at least once per month. If it is below 90%, the Permittee must repair the lime injection system within 45 days.
38. The Permittee shall calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in §63.1512(o).
39. The Permittee shall conduct a performance test as outlined in 40 CFR 63.1512.
40. The owner or operator of a major or area source must submit semiannual reports according to the requirements in §63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in §63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.
41. A report must be submitted if any of the following conditions occur during a 6-month reporting period:
 - The corrective action specified in the OM&M plan for the bag leak detection system was not initiated within one hour.
 - An excursion of a compliant process or operating parameter or range (i.e. lime injection rate, flux injection rate) occurred.
 - An affected source was not operated according to 40 CFR 63 Subpart RRR.
45. Each report must include each of the following certifications, as applicable:
 - For each affected source choosing to demonstrate compliance during periods of startup and shutdown in accordance with §63.1513(f)(1): “During each startup and shutdown, no flux and no feed/charge were added to the emission unit, and electricity, propane or natural gas were used as the sole source of heat or the emission unit was not heated.”
46. The Permittee shall submit the results of any performance tests within 60 days of the test.
47. The malfunction report required by Subpart RRR shall be submitted with the semiannual excess emissions report required by Subpart RRR.

48. If there was a malfunction during the reporting period, the owner or operator must submit a report that includes the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must include a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions, including, but not limited to, product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1506(a)(5).
49. Records shall be kept documenting the total operating hours for the furnace during each six-month period, each bag leak alarm, the type of alarm, the time corrective action was initiated and completed, and a brief description of the cause and corrective action for the alarm.
50. Records shall be kept documenting the 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+ 25 °F), with a brief explanation of the cause of the excursion and the corrective action taken.
51. Records shall be kept documenting the inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days.
52. If lime feeder setting is monitored, records shall be kept documenting the daily and monthly inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.
53. Records shall be kept documenting the 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
54. Records shall be kept documenting the feed/charge (or throughput) weights for each operating cycle or time period used in the performance test
55. Records shall be kept documenting the monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements

56. Records shall be kept documenting the annual inspections of emission capture/collection and closed vent systems or, if the alternative to the annual flow rate measurements is used, records of differential pressure; fan RPM or fan motor amperage; static pressure measurements; or duct centerline velocity using a hotwire anemometer, ultrasonic flow meter, cross-duct pressure differential sensor, venturi pressure differential monitoring or orifice plate equipped with an associated thermocouple, as appropriate.
57. A copy of the OM&M plan shall be kept.
58. For any failure to meet an applicable standard, the Permittee shall maintain the following records:
 - Records of the emission unit ID, monitor ID, pollutant or parameter monitored, beginning date and time of the event, end date and time of the event, cause of the deviation or exceedance and corrective action taken.
 - Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1506(a)(5), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

DRAFT
Date