

AIR PERMIT

PERMITTEE: ATLANTIC SALVAGE & RECYCLING FL L.L.C.
FACILITY NAME: ATLANTIC SALVAGE & RECYCLING CHEROKEE FACILITY
LOCATION: CHEROKEE, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
701-0066-X001	Two (2) 1.5 ton/hr Aluminum Sweat Furnaces with Two (2) Afterburners.

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, 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

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. 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.
5. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shutdown as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
6. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shut down shall be reported to the Air Division at least 24 hours prior to the planned shutdown, **unless accompanied by the immediate shutdown of the emission source.**
7. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
8. All deviations from requirements within this Permit shall be reported to the Department within **48 hours or two (2) working days** of determining that a deviation occurred. The report will include information regarding the date, time, duration, cause, and any corrective actions or preventative measures that were taken.
9. 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.

10. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter.

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 60 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

16. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.
17. 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.
18. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

19. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
20. 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.
21. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
22. 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.

23. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), except for one 6-minute period during any 60-minute period, no source shall discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average. At no time shall sources discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average. Opacity shall be determined by 40 CFR Part 60, Appendix A-4, Method 9.
24. In accordance with ADEM Admin. Code. r. 335-3-4-.04(1), at no time shall particulate matter emission from the sweat furnaces exceed $E=3.59P^{0.62}$, where:
- E=Particulate matter emissions, in pounds per hour
P=Process weight per hour, in tons per hour
25. These sweat furnaces are subject to 40 CFR 63 Subpart RRR, "National Emission Standards for Hazardous air Pollutants for Secondary Aluminum Production."
26. At no time shall dioxins & furans emissions, expressed as toxic equivalents (D/F TEQ), from each sweat furnace exceed 3.5×10^{-10} grains per dry standard cubic foot at 11% oxygen across the afterburner stacks [§63.1505(f)(2)].
27. The furnaces shall meet the following operating requirements:
- a. A capture and control system or fume hood that vents captured emission from each furnace shall be installed to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see §63.14) and operated according to the OM&M plan [§63.1506(c)(1) and §63.1506(c)(3)]; or
 - b. The sweat furnaces shall be designed and operated to have negative air flow, exhausting to its designated afterburner, according to the OM&M plan and good work practice standards [§63.1506(c)(3) and §63.1506(c)(4)(i) - (iii)].
28. At all times, the sweat furnaces must be operated and maintained, including the associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions
29. Each afterburner shall meet the operating requirements of 40 CFR 63.1505 and 63.1506:
- a. Each afterburner shall be designed with a residence time or 0.8 seconds or greater [§63.1505(f)(1)].
 - b. The 3-hour block average operating temperature of each afterburner shall be maintained above 1,600 °F [§63.1505(f)(1) and [§63.1506(h)(1)(ii)].
 - c. Each afterburner shall be operated according to the OM&M plan [§63.1506(h)(2)].
30. The facility must initiate corrective action when a process parameter or add-on air pollution control device operating parameter deviates from the value or range in the OM&M plan.

Corrective action must restore operation of the affected source or emission unit to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter levels(s) to the value or range of values established and take steps to prevent the likely recurrence of the cause of a deviation [§63.1506(p)].

31. Each sweat furnace shall meet the operating requirements of 40 CFR 63.1510:

- a. The capture/collection system or fume hood that vents captured emissions to the afterburners shall be inspected at least once per year according to the methods and requirements of 40 CFR 63.1510(d)(2). Inspection includes volumetric flow rate measurements using EPA Methods 1 and 2 or verification of permanent total enclosure using EPA Method 204 [§63.1510(d)(2)].
- b. In lieu of Proviso 31. a., for each sweat furnace a visual smoke test may be conducted annually in accordance with 40 CFR 63.1510(d)(3) to ensure that it is operated with negative air flow [§63.1510(d)].

32. Each afterburner shall meet the monitoring requirements of 40 CFR 63.1510:

- a. A thermocouple or equivalent device must be installed, calibrated, maintained, and operated on each afterburner to continuously monitor and record the operating temperature of each afterburner consistent with the requirement for continuous monitoring systems in 40 CFR 63.8 [§63.1510(g)(1)].
- b. Each thermocouple or equivalent device must be installed at the exit of the combustion zone of its afterburner, must record the temperature in 15-minute block averages, must determine and record the temperature for each 3-hour block period, must have a response range spanning 0 to 2,400°F, and must be calibrated following NIST reference methods [§63.1510(g)(2)(i)-(iv)].
- c. Each afterburner must be inspected at least once per year. At a minimum. An inspection must include:
 - i. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensors;
 - ii. Inspection for proper adjustment of combustion air;
 - iii. Inspection of internal structures such as baffles, to ensure structural integrity;
 - iv. Inspection of dampers, fans, and blowers for proper operation;
 - v. Inspection for proper sealing;
 - vi. Inspection of motors for proper operation;
 - vii. Inspection of combustion chamber refractory lining (cleaning and replacing lining as necessary);

- viii. Inspection of afterburner shell for corrosion and/or hot spots:
 - ix. Documentation that the afterburners' burn cycles are functioning properly immediately following the inspection and that all necessary adjustments have been made;
 - x. Verification that the equipment is maintained and in good working order; and
 - xi. Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan [§63.1510(g)(3)]
33. The operation maintenance and monitoring plan (OM&M), or revisions thereto shall be submitted to the Department within 90 days after startup and shall contain the following, as applicable [§63.1510(b)].
- a. Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, for each furnace and each afterburner.
 - b. A monitoring schedule for each sweat furnace.
 - c. Procedures for the proper operation and maintenance of each sweat furnace and each afterburner.
 - d. Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including calibration and certification of accuracy of each monitoring device, semiannually, according to the manufacturer's instructions.
 - e. Procedures for monitoring process and control device parameters and procedures for annual inspections of afterburners.
 - f. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the range established per 40 CFR 63.1510(b)(1), including procedures to determine and record the cause of any deviation and the time the deviation began and ended and procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.
 - g. 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.
 - h. Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits.
34. Should performance testing be required to show compliance with the emissions limits of Provisos 24 and 26, the test shall be conducted as follows:
- a. Each performance test must consist of three separate runs. Pollutant sampling for each run must be conducted over a period including the charging and melting of scrap aluminum and tapping (pouring) of molten aluminum. Additionally, where the length of the process operating cycle is not known in advance, and where isokinetic sampling must be conducted based on the procedures in Method 5 in Appendix A to 40 CFR Part 60, use the procedure

specified in 40 CFR 63.1511(b)(3) to ensure that sampling is conducted over the entire process operating cycle.

- b. Performance tests must be conducted under representative conditions expected to produce the highest level of emission (considering the extent of feed/charge contamination and feed/charge rate) [§63.1516(b)(1)].
- c. The following methods in 40 CFR Part 60, Appendix A, shall be used:
 - i. Method 5 for PM
 - ii. Method 23 for D/F
- d. The following operating parameters shall be monitored and recorded.
 - i. Afterburner temperatures
 - ii. Charge/feed rate
- e. The results of any performance test shall be submitted to the Department within 60 days of the test date [§63.1516(b)(3)(i)].

35. Visible emissions observations shall be performed as follows on both afterburner stacks:

- a. At least once per day when each furnace is operating, the permittee shall inspect the stacks for visible emissions.
- b. If any visible emissions are noted, within 1 hour, the Permittee shall take appropriate actions as necessary according to the OM&M plan to eliminate the observed emissions.
- c. If after one hour, the furnace is operating but observed visible emissions have not been eliminated, a visual emissions observation lasting at least 12-minutes in length shall be conducted by a certified observer in accordance with Method 9 of 40 CFR Part 60, Appendix A-4.

36. The following records shall be kept in a form suitable and readily available for inspection for at least five (5) years:

- a. Records documenting the 15-minute block average temperatures for each afterburner, including any period when the 3-hour block average temperature falls below 1,600 °F, with a brief explanation of the cause of the excursion and the corrective action taken [§63.1517(b)(2)(i)].
- b. For each thermocouple or equivalent temperature monitoring device used to show compliance with Proviso 29, records shall be kept documenting each period where the temperature monitoring device is inoperative or out of control (except during calibration). Monitor downtime relative to process operating time shall be calculated for each semiannual period. The nature and cause of any deviation shall be noted, and any corrective actions, repairs, or adjustments shall be recorded [§63.1517(b)(6)].

- c. Records documenting the annual emission capture/collection and negative air flow inspections [§63.1517(b)(2)(ii)].
 - d. Records documenting the annual afterburner inspections [§63.1517(b)(2)(ii)].
 - e. A copy of the OM&M plan shall be kept [§63.1517(b)(16)].
 - f. 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 applicable [§63.1517(b)(14)].
 - g. For any failure to meet an applicable standard, the following records shall be kept:
 - i. 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 [§63.1517(b)(18)(i)].
 - ii. 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[§63.1517(b)(18)(ii)].
 - h. Records of each visible emissions observation documenting the date time, duration, ambient conditions, reading, observer, and corrective actions taken.
37. The facility shall maintain records documenting the feed/charge weights for each furnace.
38. An excess emissions/summary report must be submitted according to the requirements of 40 CFR 63.10(e)(3) within 60 days of the end of each semiannual calendar reporting period.
- a. The following information must be included, if any occurred, during that reporting period.
 - i. An excursion of a compliant process or operating parameter or range (e.g. afterburner operating temperature) occurred.
 - ii. An affected source was not operated according to the requirements of 40 CFR 63 Subpart RRR.
 - iii. When no deviations of parameters have occurred, the report must state that “no excess emissions occurred during the reporting period”.
 - b. Each report must include the applicable certifications of 40 CFR 63.1516(b)(2).
 - c. Each report must include summaries of malfunctions in accordance with 40 CFR 63.1516(d).

DRAFT

Date