



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

## FINAL PERMIT

### PERMITTEE

Allied Recycling, Inc.  
2347 SW Hwy 17  
Arcadia, FL 34266

Air Permit No. 0270021-001-AC  
Permit Expires: 12/31/2013  
Site Name: Allied Recycling Arcadia, Inc.  
Minor Air Construction Permit  
Project Name: Installation of a shredding mill

Authorized Representative:  
Mr. Todd Adamson, Vice President

This is the final air construction permit for installation of a shredding mill for size reduction and sorting of materials for recycling in a scrap and waste material handling facility. The proposed work will be conducted at the Allied Recycling Arcadia, Inc (Standard Classification No. 5093).

The facility is located in DeSoto County at 2347 SW Hwy 17, Arcadia, Florida. The UTM coordinates are Zone 17, 413.838 km East, and 3007.11 km North. As noted in the Final Determination provided with this final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final document is organized by the following sections:

- Section 1. General Information
- Section 2. Administrative Requirements and Facility-wide Specific Conditions
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

Due to the technical nature of the project, this document contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this document.

These air pollution permits are issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of these permits. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of these final permits, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

\_\_\_\_\_  
Robert C. Wong  
District Air Program Administrator  
Southwest District

\_\_\_\_\_  
Effective Date

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permits and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on \_\_\_\_\_ to the persons listed below.

Todd Adamson, Allied Recycling, Inc. ([ertadamson@aol.com](mailto:ertadamson@aol.com))

Venkata Godasi, AARC Environmental, Inc. ([vgodasi@aarcevn.com](mailto:vgodasi@aarcevn.com))

Brian Moench, Moench Engineering, Inc. ([bmoench@moencheng.com](mailto:bmoench@moencheng.com))

Eugene Donald Schaltenbrand, P.E., Arlington Environmental Services, Inc. ([schaltee@bellsouth.net](mailto:schaltee@bellsouth.net))

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

## SECTION 1. GENERAL INFORMATION (DRAFT)

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### FACILITY AND PROJECT DESCRIPTION

#### Project Description and Proposed Emission Unit

This construction permit is for installation of a shredding mill in a scrap and waste material handling facility. The shredding mill will be used for size reduction and sorting of materials for recycling. This project will create the following emission unit.

Facility ID No. 0270021	
ID No.	Emission Unit Description
001	Shredding Mill

*NOTE: Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

### FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAPs).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a synthetic non-Title V source of the pollutant PM<sub>10</sub>.

### PERMIT HISTORY/AFFECTED PERMITS

Brand New Facility. No previous permits.

**SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC  
CONDITIONS (FINAL)**

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1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District's Air Resource Management Section. The Southwest District's mailing address and phone number is:

Florida Department of Environmental Protection  
Southwest District Office  
Air Resource Management Section  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: 813-632-7600

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office's Air Resource Management Section (see above mailing address and phone number).
3. Appendices: The following Appendices are attached as part of this document:
- a. Appendix A. Citation Formats and Glossary of Common Terms;
  - b. Appendix B. General Conditions;
  - c. Appendix C. Common Conditions; and
  - d. Appendix D. Common Testing Requirements.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this document, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility. [Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]
7. Annual Operating Report: On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority. [Rule 62-210.370(3), F.A.C.]

**SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC  
CONDITIONS (FINAL)**

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8. Application for Non-Title V Air Operation Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Non-Title V air operation permit is required for continued operation of the permitted emissions unit. The permittee shall apply for a Non-Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. Commencing operation means setting into operation of any emissions unit for any purpose. To apply for a Non-Title V air operation permit, the applicant shall submit the following:
- a. the appropriate permit application form (*see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: <http://www.dep.state.fl.us/air/>*);
  - b. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.; and,
  - c. copies of the most recent month of records/logs specified in Specific Condition No. A.5.

The application shall be submitted to the Permitting Authority.

[Rules 62-4.030, 62-4.050 and 62-4.220 , F.A.C.]

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)**

**A. EU 001: Shredding Mill**

This section of the document addresses the following emissions unit.

ID No.	Emission Unit Description
001	<p data-bbox="277 306 1448 554"><u>Shredding Mill</u>: Scrap automobiles and other large ferrous and non-ferrous metal objects are fed into a Harris Model HS-98115 shredder system powered by a 3,000 to 6,000 horsepower (HP) wound rotor electric motor. The shredder system is equipped with a water spray system (water is converted to steam due to high operational temperatures) to cool temperature and minimize particulate matter (PM) emissions. The shredder is designed to operate at the rate between 90 to 220 tons per hour. The product size ranges from 5/8 inch to 4 inches.</p> <p data-bbox="277 594 1448 804"><u>Ferrous Product Line</u>: Upon exiting the shredder, materials undergo a three step process of separation to clean ferrous final product. The materials are first passed through a magnetic separator which separates the ferrous materials from the non-ferrous materials. Some non-ferrous materials will remain in the ferrous material stream. In the second step of cleaning the ferrous materials, it is passed through the Metso Texas Shredder Inc. Air System. The air system consists of the following:</p> <ul data-bbox="326 810 1448 947" style="list-style-type: none"><li>• Z-Box Assembly</li><li>• Cyclone Assembly</li><li>• Fan Assembly, 60,000 cubic feet per minute (cfm) maximum discharge, up-blast fan.</li></ul> <p data-bbox="277 953 1448 1236">The shredded ferrous product and the non-metallic (Trash, Fluff) that are carried over the magnetic separator are introduced into the Z-Box. The material enters into the air stream created by the fan. The Z-Box has positive air pressure from the fan entering at the bottom of the Z-Box and flowing up through the product stream to the suction duct located at the top of the Z-Box. As the shredded product flows through the Z-Box, the heavy ferrous product falls through the Z-Box due to gravity. The lighter materials are entrained in the air flow and carried from the ferrous stream through the suction duct. The lighter materials are then removed from the air stream at the cyclone assembly.</p> <p data-bbox="277 1276 1448 1560">The exhaust air from cyclone passes through a butterfly valve, where 75-80% air is recycled to Z-box and 20-25% is exhausted to atmosphere. In the third step of the cleaning process, the ferrous materials are passed through a ferrous sorting conveyor where non-ferrous materials are handpicked and removed. The final ferrous product is then stored in a stockpile for later transportation. Conveyors of various sizes and lengths are used to transfer the materials at the facility. Ferrous product line is equipped with no more than 25 transfer points. All emissions from these transfer points exhaust to atmosphere as fugitives.</p> <p data-bbox="277 1600 1448 1810"><u>Non-Ferrous Product Line</u>: Non-Ferrous materials discharged from the bottom of the magnetic separator are routed to the new non-ferrous recovery system to sort the materials by size. A Magnetic overhead cross-belt on top of conveyors with non-ferrous material in non-ferrous product line is used to sort additional ferrous materials. The non-ferrous product line consists of batch feeders, two trommels, eddy current systems to sort materials to various sizes and grades.</p>

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)**

**A. EU 001: Shredding Mill**

<p>The eddy current system consists of a belt conveyor and a high speed magnetic rotor system. The magnetic rotor revolves at high speeds while the belt conveyor rotates at the normal speed. As the rotor spins at these high speeds, an electric current is induced into the conducting materials (like aluminum, copper, zinc). The induced electric current produces a magnetic field in conducting metals, which opposes the field created by the rotor, repelling the conducting metals. The repelled conducting metals fall over a pre-positioned splitter plate. The non-metallic materials such as plastics, glass and fluff will simply free fall inside a pre-positioned splitter plate, separating them from the conducting metals.</p> <p>There will be stockpiles of non-ferrous metals, non-metallic materials and waste for later transportation. Conveyors of various sizes and lengths are used to transfer the materials at the facility. Non-ferrous product line is equipped with no more than 25 transfer points. All emissions from these transfer points exhaust to atmosphere as fugitives.</p> <p>All transfer points/conveyors and trommels in the process are also equipped with a water spray system to be used in the event of PM emissions.</p> <p>Waste and wastewater will be handled and disposed of according to Waste Management and Industrial Wastewater Regulations.</p>
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**PERFORMANCE RESTRICTIONS**

A.1. Permitted Capacity:

- a. The maximum weight of material loaded to the shredder (including the oversized material that is reprocessed by the shredder) is 1,927,200 tons per any consecutive 12-month period.
- b. Each of the ferrous and non-ferrous product lines shall be equipped with no more than twenty five (25) transfer points.

[Rule 62-210.200(PTE), F.A.C.]

{Permitting Note: Permit Application dated 02/03/2012.}

A.2. Hours of Operation: The hours of operation are not limited (8,760 hours per year).

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

A.3. Minimizing Emissions of Particulate Matter:

- a. A water spray system shall be used when the shredder is in operation to reduce PM emissions.
- b. In order to provide reasonable assurance that the cyclone separator is being properly maintained and operated, visible emissions (VE) from the cyclone separator should not exceed five percent (5%) opacity. Exceedance of this limit is not a violation of in and of itself, but may be an indication that the cyclone separator is not properly maintained or operated.

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## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

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### A. EU 001: Shredding Mill

- c. A water spray system shall be used whenever unconfined emissions occur at the transfer points/conveyors and trommels to reduce PM emissions. VE from the transfer points/conveyors and trommels should not exceed ten percent (10%) opacity. Exceedance of this limit is not a violation of in and of itself, but may be an indication that the transfer points/conveyors and trommels are not properly maintained or operated.  
[Rules 62-296.320(4)(c) and 62-4.070(3), F.A.C.]  
{Permitting Note: Permit Application dated 02/03/2012.}

- A.4. Notification of Operation Commencement: The permittee shall notify the Compliance Authority in writing of the date of commencing operation of the EU No. 001, no later than fifteen (15) days after that date. Commencing operation means setting into operation any emissions unit for any purpose.  
[Rule 62-4.070, F.A.C., and Rule 62-210.200, F.A.C., (Definition of Commence Operation)]

### RECORDS AND REPORTS

- A.5. Daily and Monthly Log: To document compliance with Specific Condition No. A.1., the permittee shall record and calculate, at a minimum, the following:

- a. Facility ID (0270021) and Emission Unit No. (EU 001);

Daily (each operating day):

- b. Date;  
c. Weight of material processed through the shredder (tons).

Monthly :

- d. Month;  
e. Weight of material processed through the shredder (tons); and,  
f. Total weight of material processed through the shredder (tons) per any consecutive 12-month period.  
g. A certificate stating that each of the ferrous and non-ferrous product lines is equipped with no more than twenty five (25) transfer points.

Daily record should be completed within five (5) business days and monthly record should be completed by the 15<sup>th</sup> day of the following month and shall be retained at the facility for a minimum of three (3) years and shall be made available to the Department upon request.  
[Rule 62-4.070(3), F.A.C.]