



State of Ohio Environmental Protection Agency

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7/31/2008

JAMES SHOLLENBERGER  
OMNISOURCE CORP  
2453 HILL AVE  
TOLEDO, OH 43607

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0448011189  
Permit Number: P0103630  
Permit Type: Initial installation  
County: Lucas

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Toledo Department of Environmental Services  
348 South Erie Street  
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
TDES; Michigan; Indiana; Canada

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director



PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install and Operate  
OMNISOURCE CORP

Issue Date: 7/31/2008

Permit Number: P0103630

Permit Type: Initial installation

Permit Description: F003 - magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling F004 - 12 torching stations, used to disassemble miscellaneous metal parts before they are fed to the shredder F005 - metal shredder, comprised of an enclosed hammermill driven by an electric motor and the associated material separation equipment (z-box with cyclone)  
K001 - misc metal parts spray booth <10 gpd

Facility ID: 0448011189

Facility Location: OMNISOURCE CORP  
5000 N. DETROIT AVE,  
TOLEDO, OH 43612

Facility Description: Recyclable Material Merchant Wholesalers

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Mary Lehman-Schmidt at Toledo Department of Environmental Services, 348 South Erie Street or (419)936-3015. The permit can be downloaded from the Web page: [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc)





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

OmniSource Corporation operates a metal recycling center at 5130 North Detroit Ave. in Toledo, Ohio. A permit to install application was submitted on December 10, 2007 for a new shredder with modifications to the existing permits. The plant is comprised of various material handling operations, a hammermill, storage piles, paved and unpaved roadways, torching operations, surface coating operations.

3. Facility Emissions and Attainment Status:

Omni Source currently operates as a synthetic minor source for all pollutants with restrictions on monthly fuel usage maintaining minor source emission status for CO for two natural gas fired engines used to power an existing shredder. After replacement of the existing shredder by a electric powered shredder, the CO will no longer be a concern, however the new unrestricted facility-wide emissions of VOC would exceed 100 tons per year. With a restriction of 720,000 tons of scrap processed per year, total facility emissions will be minor for all criteria pollutants. Lucas County has the following attainment status:

Pollutants	Air Quality Description
Particulate Matter	Unclassified
PM10	Attainment
Sulfur Dioxide	Attainment
Organic Compounds	Attainment
Nitrogen Oxides	Attainment
Carbon Monoxide	Attainment
Lead	Unclassified

4. Source Emissions:

This permit is one of three permits related to this project and is for the installation of emissions units F003 - material handling (magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling), F004 - torching stations, F005 - metal shredder and K001 - miscellaneous metal spray booth. Total federally enforceable potential to emit from these emissions units will be 30.46 tons of particulate emissions (PE) per year, 14.25 tons of particulate matter emissions less than or equal to 10 microns in diameter (PM10) and 92.58 tons of volatile organic compounds (VOC).

Project Emission Summary

tpy	Allowable Emissions		
	PE	PM10	VOC
F001	1.96	0.54	0.00
F002	3.91	1.30	0.00
F003	24.60	8.95	0.00
F004	4.99	4.99	0.00
F005	0.86	0.30	88.92
K001	0.01	0.01	3.66
Permit total	36.33	16.09	92.58

Fugitive emissions from this facility are not included in the calculations for major source applicability.

PSD/Title V Emissions (stack emissions only)

Tpy	Allowable Emissions		
	PE	PM10	VOC
F003 (Z-box)	4.93	1.73	0.00
F005 (shredder)	0.86	0.30	88.92
K001	0.01	0.01	3.66
Total	5.80	2.04	92.58

5. Conclusion:

OmniSource is not an existing major source for PSD or Title V purposes. With a throughput restriction, and enforceable control requirements, this project increases allowable emissions of PE by 30.92 tons per year, PM10 by 16.09 tons per year and VOC by 92.58 tons per year. These increases do not trigger the requirements for PSD review or Title V applicability.

6. Please provide additional notes or comments as necessary:

Description

OmniSource Corporation operates a metal recycling center at 5130 North Detroit Ave. in Toledo, Ohio. This facility was permitted under PTI 04-957 issued May 3, 1995 with sources identified as F001 roadways and parking lots, F002 storage piles and P002 & P003 natural gas fired engines #1 and #2. A permit to install application was submitted on December 10, 2007 for a new shredder with potential modifications to the existing permits.

Omni Source currently operates as a synthetic minor for CO with restrictions on monthly fuel usage for two natural gas fired engines used to power an existing shredder. The plant is comprised of various material handling operations, a hammermill, storage piles, paved and unpaved roadways, torching operations, surface coating operations. Controls are watering, chemical suppression and enclosure. Omni Source is updating the

salvage yard to operate as a more efficient facility. The existing hammermill along with the material handling equipment will be replaced. The two internal combustion engines are being removed from the facility as the new shredder is to be electric motor powered. Both internal combustion engines will be decommissioned and removed from the yard. The facility will no longer be subject to synthetic minor federally enforceable limits for CO. Because the modifications to this facility include altering traffic patterns and constructing new roadways, this permit may involve a modification to the emission units of PTI 04-0957 and 04-1061 (which itself was a modification to PTI 04-0957). The synthetic minor limitation on the engines used to power the shredder is considered to be adequate to have limited all particulate emissions to less than 250 tpy and therefore this facility will not be considered to be an existing major source for PSD purposes.

Engineering guide 25 lists the following recommended break down for the sources located at a metal salvage operation:

FXXX - All roadways and parking lots (F001).

FXXX - All torching stations (F004).

FXXX - One permit per shredder (F005).

FXXX - Magnetic separation and conveying of nonferrous material onto open storage piles, conveying of ferrous material onto open storage piles and ferrous material handling and loadout (F003)

FXXX - All ferrous scrap stockpiles and nonferrous material stockpiles (if stored on-site) (F002)

Because metal recycling is not a listed source of pollutants in one of the 28 PSD source categories, fugitive emissions will not be counted towards Title V applicability.

### BAT analysis

Existing emissions units/allowable emissions

PTI 04-0957 addressed the following:

P002	1750 hp engine	to be withdrawn
P003	1750 hp engine	to be withdrawn
F001	roadways and parking lots	0.014 lb PM/hr (paved) no VE except 1 minute/hr (paved) 1.21 lb PM/hr (unpaved) no VE except 3 minute/hr (unpaved) 5.34 tpy PM
F002	storage piles	0.0171lb PM/hr no VE except 1 minute/hr 0.07 tpy PM

PTI 04-1061 addressed P002 and P003 only and will be withdrawn

Proposed emissions units/allowable emissions

F003 - MATERIAL HANDLING - Magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling. Note that the load in and load out of the storage piles has been assigned to the storage pile permit in accordance with the RACM document guidance.

The company identifies the poker picker, magnet, vibrator, combining chute, Zbox and manual sorting as being "enclosed" with a 100% effective control. However with the exception of the Zbox which is equipped with a cyclone, they identify no control equipment other than the building proper, and a causal examination of the

processes suggests little potential for the operation of an "air tight" enclosure. Probable control for these processes would be in the 50 to 90% range for the material which becomes airborne, dependent on the degree of enclosure and the applicable permit BAT requirement (typically, 90% control might require a permit restriction of 0% opacity for building egresses). Since the actual airborne emissions are inherently low due to the very high moisture levels of the materials being handled the tpy difference is expected to be insignificant, however without additional information, we would be hesitant to allow greater than 50% control for the proposed enclosure.

OmniSource submitted emission calculations based on emission factors taken from AP-42, Chapter 11.19.2. Table 11.19.2-2 EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS dated 8/04 for conveyor belt transfer points: 0.0030#PE/t uncontrolled and 0.00014#PE/t controlled by wet suppression, 0.0011#PM10/t uncontrolled and 0.000046#/t controlled by wet suppression. These emissions factors are assumed to overestimate the actual emissions of freshly shredded materials. OmniSource estimated these material handling PTE emissions at 44.19 tpy PE and 12.50 tpy PM10.

Adjusting our calculations to normalize for 720,000 tons maximum of throughput we find:

Potential to emit, PM&PM10

transfer point, wet; 1 emission point

$$224 \text{ tons/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.00014 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(1) = 0.05 \text{ tpy PM}$$

$$224 \text{ tons/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.000046 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(1) = 0.02 \text{ tpy PM10}$$

transfer point, dry; 3 emission points

$$0.56 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(3) = 0.01 \text{ tpy PM}$$

$$0.56 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(3) = 0.01 \text{ tpy PM10}$$

transfer point, dry; 5 emission points

$$1.12 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(5) = 0.03 \text{ tpy PM}$$

$$1.12 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(5) = 0.01 \text{ tpy PM10}$$

transfer point, dry; 2 emission points

$$1.68 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(2) = 0.02 \text{ tpy PM}$$

$$1.68 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(2) = 0.01 \text{ tpy PM10}$$

transfer point, dry; 8 emission points

$$2.24 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.003 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(8) = 0.09 \text{ tpy PM}$$

$$2.24 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(8) = 0.03 \text{ tpy PM10}$$

transfer point, dry; 2 emission points

$$2.52 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(2) = 0.02 \text{ tpy PM}$$

$$2.52 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(2) = 0.01 \text{ tpy PM10}$$

transfer point, dry; 4 emission points

$$2.8 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(4) = 0.05 \text{ tpy PM}$$

$$2.8 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(4) = 0.02 \text{ tpy PM10}$$

transfer point, dry; 10 emission points

$$17.92 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(10) = 0.86 \text{ tpy PM}$$

$$17.92 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(10) = 0.32 \text{ tpy PM10}$$

transfer point, dry; 5 emission points

$$22.4 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0030 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(5) = 0.54 \text{ tpy PM}$$

$$22.4 \text{ ton/hr } (720,000 \text{ tons/yr} \div 224 \text{ tons/hr})(0.0011 \text{ lb/ton})(1 \text{ ton}/2000 \text{ lb})(5) = 0.20 \text{ tpy PM10}$$

transfer point, dry; 4 emission points

$39.76 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(4) = 0.77 tpy PM}$

$39.76 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(4) = 0.28 tpy PM10}$

transfer point, dry; 1 emission point

$42.56 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(1) = 0.21 tpy PM}$

$42.56 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(1) = 0.08 tpy PM10}$

transfer point, dry; 5 emission points

$44.8 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(5) = 1.08 tpy PM}$

$44.8 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(5) = 0.40 tpy PM10}$

transfer point, dry; 2 emission points

$47.88 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lbs)(2) = 0.46 tpy PM}$

$47.88 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(2) = 0.17 tpy PM10}$

transfer point, dry; 6 emission points

$49 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(6) = 1.42 tpy PM}$

$49 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(6) = 0.52 tpy PM10}$

transfer point, dry; 5 emission points

$51.24 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(5) = 1.24 tpy PM}$

$51.24 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(5) = 0.45 tpy PM10}$

transfer point, dry; 3 emission points

$53.48 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(3) = 0.77 tpy PM}$

$53.48 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(3) = 0.28 tpy PM10}$

transfer point, dry; 3 emission points

$168 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lbs)(3) = 2.43 tpy PM}$

$168 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(3) = 0.89 tpy PM10}$

transfer point, dry; 1 emission point

$173.6 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lbs)(1) = 0.84 tpy PM}$

$173.6 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(1) = 0.31 tpy PM10}$

transfer point, dry; 1 emission point

$201.6 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lb)(1) = 0.97 tpy PM}$

$201.6 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(1) = 0.36 tpy PM}$

transfer point, dry; 2 emission point

$224 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0030 lb/ton)(1 ton/2000 lbs)(2) = 2.16 tpy PM}$

$224 \text{ ton/hr (720,000 tons/yr} \div 224 \text{ tons/hr)(0.0011 lb/ton)(1 ton/2000 lb)(2) = 0.79 tpy PM10}$

Total allowable emissions from conveying operations are estimated at 14.02 tpy PE and 5.16 tpy PM10.

With no additional information from the company, emissions from the poker picker, magnet, vibrator, combining chute and manual sorting will be typified as the equivalent of 10 transfer points:

$720,000 \text{ tons/yr (0.0030 lb/ton)(1 ton/2000 lbs)(10) = 10.80 tpy PM}$

$720,000 \text{ tons/yr (0.0011 lb/ton)(1 ton/2000 lb)(10) = 3.96 tpy PM10}$

Stack emissions from the Z box separator and cyclone (Z-box bleed-off) have been identified as 0.0137 lb/ton for PE and PM10 based on the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-11.E dated 1996. Our expectation is that PM10 emissions represent approximately 35% of the PE.

Stack emissions from the Z box separator and cyclone are estimated at:

221.76 tph (0.0137 lb/ton) = 3.04 lb PE/hr  
 720,000 tpy (0.0137 lb/ton)(1 t/2000 lb) = 4.93 tpy PE  
 3.04 lb PE/hr (35%) = 1.06 lb/hr PM10  
 4.93 tpy PE (35%) = 1.73 tpy PM10

Uncontrolled fugitive emissions are estimated at 10% of the stack allowables:

4.93 tpy PE (10%) = 0.49 tpy PE  
 1.73 tpy PM10 (10%) = 0.17 tpy PM10

Uncontrolled fugitive emissions from the poker picker, magnet, vibrator, combining chute, Z box separator and manual sorting are estimated as;

10.80 tpy PE + 0.49 tpy PE = 11.29 tpy PE  
 3.96 tpy PM10 + 0.17 tpy PM10 = 4.13 tpy PM10

Emissions controlled with enforceable permit terms by the building enclosure are estimated to be 50% of these values or 5.65 tpy PE and 2.06 tpy PM10. As a worst case BAT for fugitive emissions, operating at 224 tons per hour:

$(14.02 \text{ tpy} + 5.65 \text{ tpy PE}) \times ((224 \text{ tons/hr}) \div (720,000 \text{ tons/yr})) \times (2000 \text{ lb/ton}) = 12.24 \text{ lb PE/hr}$   
 $(5.16 \text{ tpy} + 2.06 \text{ tpy PM10}) \times ((224 \text{ tons/hr}) \div (720,000 \text{ tons/yr})) \times (2000 \text{ lb/ton}) = 4.49 \text{ lb PM10/hr}$

**Material Handling Emissions**

tph	OmniSource		Uncontrolled Emissions		Allowable Emissions	
	PE	PM10	PE	PM10	PE	PM10
conveying	44.19	12.50	14.02	5.16	14.02	5.16
building emissions	-	-	11.29	4.13	5.65	2.06
stack emissions	13.31	11.88	49.30 <sup>1</sup>	17.30 <sup>1</sup>	4.93	1.73
F003 total	57.50	24.38	74.61	26.59	24.60	8.95

<sup>1</sup> Allowing for an 90% effective control by utilization of a cyclone

Because this emissions unit existed without a permit prior to 2006, SB265 does not apply.

Applicable requirements are:

OAC rule 3745-17-07 (A)(1) stack - 20% opacity except for a period of time not to exceed 6 minutes during any 60-minute period

OAC rule 3745-17-07 (B)(1) fugitive - 20% opacity except for a period of time not to exceed 3 minutes during any 60-minute period

OAC rule 3745-17-08 (B), (B)(3) reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the fugitive dust

OAC rule 3745-31-05(A)(3) fugitive - 10% opacity except for a period of time not to exceed 3 minutes during any 60-minute period (BAT from cement general permit)  
stack - 3.04 lb/hr PE, 1.06 lb PM10/hr, 10% opacity except for a period of time not to exceed fugitive 3 minutes during any 60-minute period (BAT from cement general permit)

OAC rule 3745-31-05(D) 24.60 ton PE/yr, 8.95 ton PM10/yr

Note: While no VOC emissions have been identified as being associated with the Z-box stack, it is reasonable to assume that some minor amount of VOC would be entrained with the fluff and evaporate from this source. Preventative control measures for these emissions are included in the terms and conditions of F005 and no additional consideration of VOC was included in this permit.

#### F004 - Torching stations

The permittee identifies 19 torching stations, used to disassemble miscellaneous metal parts before they are fed to the shredder with annual emissions of 3.15 tpy PE And PM10. At a fugitive particulate emission rate for cutting clean steel of 0.06 lb/hr from ISRI TitleV applicability Workbook, Appendix D, Table D-5 dated 1996, operating 8760 hrs/yr, emissions are estimated at:

$19 (0.06 \text{ lb/station-hr}) = 1.14 \text{ lb PE/hr}$   
 $1.14 \text{ lb PE/hr} (8760 \text{ hr/yr})(1 \text{ t}/2000 \text{ lb}) = 4.99 \text{ tpy PE}$

OmniSource identified 7 of the torching operations as occurring indoors, and apparently claimed 100% effective capture and control of the fugitive emissions. The nature of the particulate suggests that all PE may be considered to be PM10. Since the emissions are <10 tpy, the operation will be exempted from BAT requirements by S.B. 265. RACT will be required, 20% as a 3-minute average. Since this emissions unit is not restricted by enforceable controls, PTE for federal purposes is 4.99 tpy as PE and PM10. It is not necessary to apply OAC rule 3745-31-05(D) limitations.

Note: the emissions factor utilized in this calculation assumes that the material being cut is steel. The torching of materials other than clean metals which result in opacities in excess of the allowable limitation will be considered to result in emissions at higher rate than 0.06 lb/station-hr. Restrictions will be added to the permit to clarify this matter. The immediate extinguishment of any open flames is a key requirement for this process.

Applicable requirements are:

OAC rule 3745-17-07 (B)(1) 20% opacity except for a period of time not to exceed 3 minutes during any 60-minute period

OAC rule 3745-17-08 (B), (B)(3) reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust

Because this emissions unit existed without a permit prior to 2006, SB265 does not apply. PTE voluntary emission limitations will be set as 4.99 tpy PE and PM10 under OAC rule 3745-31-05(D).

F005 - Metal shredder.

The metal shredder is comprised of an enclosed hammermill driven by an electric motor. Other than the material inlet and outlets, this equipment is intended to operate fully enclosed. The hammermill is equipped with water sprays directed onto the material at the inlet of the shredder, cutterhead and output chute. This means of inherent control when followed with a cyclone and venturi scrubber is deemed to result in stack emissions no greater than 0.0109 lb PE/ton based on the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-10.D.1. dated 1996 which notes that all batteries, gas tanks, and tires were removed and all fluids drained from processed vehicles. The company indicated that prior to processing of the metal materials, all combustible fluids, mercury switches and CFC's are to be removed. OmniSource states in a June 16, 2008 communication proposing testing of a similar source to establish VOC and HAP emissions factors: "Most shredders operate without air pollution control equipment..." and has not identified any control beyond the injection of water for the process in their Toledo application. In the same communication while describing the Jackson, Michigan OmniSource facility to be tested, they state: "Emissions from the shredder are captured and routed to a cyclone followed by a venturi scrubber..." at that source. On February 27, 2008 OmniSource presented stack testing results for PE from an OmniSource facility located in Indianapolis, Indiana (Capitol City Metals, LLC) which was replacing the existing cyclone and venturi scrubber with a Smart water injection system of the same (Toledo) configuration. This emissions unit tested at 0.16 lb PE/hr with a production rate of 67.5 tons per hour (0.0024 lb PE/ton). Simultaneous Method 9 opacity readings indicated that this level of emissions resulted in no visible emissions during any test period. Based on this test, OmniSource represented their Toledo PTE as 0.53 pounds of PE per hour and 2.4 tons per year (using 0.0024 lb PE/ton, 224 tons per hour and 8760 hours per year).

Since control by cyclone and scrubber is not unknown in this industry (considering OmniSource's references and the Toledo Shredding installation), we would anticipate a source with these controls could be established as a baseline BAT (e.g., a minimum emissions factor of 0.0109 lb PE/ton). OmniSource has volunteered a more restrictive BAT of 0.0024 lb PE/ton, and unless contrary comment is received, we are willing to accept this BAT level as comprising innovative technology (although it appears that water is also injected into the shredder in the scrubber controlled sources). Because OmniSource has indicated that no stack will be provided for an initial performance demonstration of PE emissions, we will drop PE testing requirements in lieu of the company provided test result calibrations (i.e., 0% opacity by method 9).

OmniSource requested an annual throughput restriction to 720,000 tons per year to avoid the applicability of Title V to this emissions unit (720,000 tpy ÷ 12 mo/yr = 60,000 t/mo).

$224 \text{ t/hr (0.0024 lb PE/ton)} = 0.54 \text{ lb PE/hr}$   
 $720,000 \text{ tpy (0.0024 lb PE/ton)}(1 \text{ t}/2000 \text{ lb}) = 0.86 \text{ tpy PE}$

Our expectation is that PM10 emissions will represent approximately 35% of the PE.

$0.54 \text{ lb PE/hr (35\%)} = 0.19 \text{ lb PM10/hr}$   
 $0.86 \text{ tpy PE (35\%)} = 0.30 \text{ ton PM10/yr}$

In their initial application, OmniSource identified emissions from this source as 2.44 lb PE/hr, 10.69 ton PE/yr, 2.18 lb PM10/hr and 9.55 ton PM10/yr.

Also based on stack testing performed at Toledo Shredding, OmniSource requested an emissions limitation for VOC of 0.247 lb/ton. OmniSource requested an annual throughput restriction to 720,000 tons per year to avoid the applicability of Title V to this emissions unit. Should OmniSource develop site specific emissions factors for this emissions unit, a permit modification could be utilized to modify or remove the throughput limitations.

224 ton/hr (0.247 lb/ton) = 55.33 lb VOC/hr  
 55.33 lb VOC/hr (8760 hr/yr)(1 t/2000 lb) = 242 tpy VOC  
 720,000 ton/yr (0.247 lb/ton)(1 t/2000 lb) = 88.92 tpy VOC

Note: OmniSource proposed as BAT for VOC control, a program of operational practices designed to limit the amount of VOC entering the airstream with the scrap including the removal (draining) of all VOC containing fluids and "once through" water usage in the shredder. We will accept operational restrictions in lieu of control equipment as BAT for VOC. Also, while these emissions might be described as fugitive, it is apparent that shredder emissions could be passed through a stack. As such, even if the specific equipment to be installed at this site does not have a provision for a stack, it may be considered circumvention of PSD review to not consider these "fugitives" in our major source determination.

A recent similar permit installation for Interstate Shredding, LLC, Facility ID: 0278020750, PTI 02-22999 issued 6/10/2008 for Emissions Unit ID: F001 added as BAT:

Prior to shredding automobiles, appliances, scrap metal, etc., the following items shall be removed:

- a. gasoline tanks;
- b. batteries;
- c. all combustible fluids;
- d. all refrigerants from air conditioning systems; and
- e. any switches or components containing mercury.

tpy	OmniSource		Uncontrolled Emissions		Allowable Emissions	
	PE	PM10	PE	PM10	PE	PM10
total	2.4	2.4	39.06 <sup>1</sup>	13.63 <sup>1</sup>	0.86 <sup>2</sup>	0.30 <sup>2</sup>

<sup>1</sup> assuming 720,000 tpy throughput but based on 90% effective control with a venturi scrubber [i.e.,  $(0.86)(0.0109/0.0024)/(1-0.90) = 39.06$ ].

<sup>2</sup> This level of emissions allows the applicability of SB-265 for PE and PM10 with voluntary restrictions resulting in tpy limitation (not a rolling, 12-month limitation because Title V was not avoided).

Applicable rules

OAC rule 3745-31-05(A)(3) 55.33 lb VOC per hour

OAC rule 3745-31-05(D) PE 0.86 ton per year  
 PM 10 0.30 ton per year  
 88.92 ton VOC per rolling 12 month period  
 visible emissions shall not exceed 0% opacity as a 3-minute average

OAC rule 3745-17-07(B)(1) visible fugitive emissions shall not exceed 20% opacity for a 3-minute average

OAC rule 3745-17-08(B) reasonably available control measures that are sufficient to minimize or eliminate visible emissions

OAC rule 3745-17-08(B)(3)(a) The collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and

OAC rule 3745-17-08(B)(3)(b) the control equipment achieves an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack(s), whichever is less stringent

#### K001 Miscellaneous parts coating

Also among the operations is a maintenance spray paint booth used for maintenance painting of 80 cubic yard metal roll-offs. OmniSource identifies an average of 200 units painted per year with 6 gallons of paint used per roll-off (1200 gallons per year). They identify emissions as 4.88 lb/VOC/gallon, 48.80 lb VOC/day (10 gallon per day stated maximum), 2.92 tons of VOC per year, 30 pounds of HAP per day, and 1.82 tons of HAP per year. OmniSource identifies the enclosure as a DeVilbiss cross flow spray booth with paper filter and the operation as airless spray painting, air dried. Ohio EPA has initiated a General Permit program for paint spray booths with less than 10 gallons of usage per day. This permit restricts the user to 74 pounds of VOC per day, 14 tons of VOC per year, 0.551 lb PE/hr and 2.41 ton of PE/yr.

Since OmniSource has identified annual VOC emissions as a concern, we will restrict annual usage using the General Permit as the basis of our BAT:

1,500 gallons/yr (4.88 lb VOC/gallon of paint)(1 ton/2000 lb) = 3.66 tpy VOC

10 gallons/day (7.6 lb/gal)(0.30 lb solid/lb paint) (1-TE) (1-CE)

10 gallons/day (7.6 lb/gal)(0.30 lb/lb) (1-0.80) (1-0.99)(1 ton/2000 lb) = 0.05 lb/day PE

1,500 gallons/yr (7.6 lb/gal)(0.30 lb solid/lb paint) (1-TE) (1-CE)

1,500 gallons/yr (7.6 lb/gal)(0.30 lb/lb) (1-0.80) (1-0.99)(1 ton/2000 lb) = 0.01 tpy PE

where

E = PE rate (lbs/hr);

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.80% -Table 4.2.2.4-2. ESTIMATED CONTROL EFFICIENCIES FOR METAL COATING LINES

CE = fractional control efficiency of the control equipment (0.99)

Table 4.2.2.1-2 (Metric And English Units). TYPICAL DENSITIES AND SOLIDS CONTENTS OF COATINGS lists air dry enamel characteristics as 7.6 lb/gallon and 39.6% solids by volume (30% by weight per application)

PM10 will be equated to PE for this emissions unit.

Because this emissions unit existed without a permit prior to 2006, SB265 does not apply.

#### Applicable rules

OAC rule 3745-31-05(A)(3) 0.01 tpy PE

0.01 tpy PM10

3.66 tpy VOC

OAC rule 3745-17-07(A)(1) visible emissions shall not exceed 20% opacity for a 6-minute average

OAC rule 3745-17-11(B)(1) 0.551 pound PE per hour

OmniSource lists HAPs as a concern at <1.66 tpy individual and < 1.82 tpy combined, however failed to provide adequate information to perform state mandated modeling in compliance with the State's air modeling policy. Terms and conditions will be added to the permit to address compliance with the Air Toxics requirements.

**Summary (for informational purposes only):  
Total Permit Allowable Emissions**

<b><u>Pollutant</u></b>	<b><u>Tons Per Year</u></b>
<u>PE</u>	30.46
<u>PM10</u>	14.25
<u>VOC</u>	92.58





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**DRAFT**

**Air Pollution Permit-to-Install and Operate  
for  
OMNISOURCE CORP**

Facility ID: 0448011189  
Permit Number: P0103630  
Permit Type: Initial installation  
Issued: 7/31/2008  
Effective: To be entered upon final issuance  
Expiration: To be entered upon final issuance





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install and Operate**  
for  
**OMNISOURCE CORP**

**Contents**

Authorization ..... 1

A. Standard Terms and Conditions ..... 3

    1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4

    2. Who is responsible for complying with this permit? ..... 4

    3. What records must I keep under this permit? ..... 4

    4. What are my permit fees and when do I pay them?..... 4

    5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 4

    6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 5

    7. What reports must I submit under this permit? ..... 5

    8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? ..... 5

    9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5

    10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 6

    11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 6

    12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 6

    13. Can I transfer this permit to a new owner or operator? ..... 6

    14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 7

    15. What happens if a portion of this permit is determined to be invalid? ..... 7

B. Facility-Wide Terms and Conditions ..... 8

C. Emissions Unit Terms and Conditions ..... 10

    1. F003, materials handling ..... 11

    2. F004, torching stations ..... 18

    3. F005, scrap metal shredder ..... 22

    4. K001, spray booth ..... 30





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0103630

**Facility ID:** 0448011189

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 0448011189

Application Number(s): A0005480, A0035533

Permit Number: P0103630

Permit Description: F003 - magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling F004 - 12 torching stations, used to disassemble miscellaneous metal parts before they are fed to the shredder F005 - metal shredder, comprised of an enclosed hammermill driven by an electric motor and the associated material separation equipment (z-box with cyclone) K001 - misc metal parts spray booth <10 gpd

Permit Type: Initial installation

Permit Fee: \$0.00 *DO NOT send payment at this time - subject to change before final issuance*

Issue Date: 7/31/2008

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

OMNISOURCE CORP  
5000 N. DETROIT AVE  
TOLEDO, OH 43612

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services  
348 South Erie Street  
Toledo, OH 43604  
(419)936-3015

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



## Authorization (continued)

Permit Number: P0103630

Permit Description: F003 - magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling F004 - 12 torching stations, used to disassemble miscellaneous metal parts before they are fed to the shredder F005 - metal shredder, comprised of an enclosed hammermill driven by an electric motor and the associated material separation equipment (z-box with cyclone) K001 - misc metal parts spray booth <10 gpd

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>F003</b>
Company Equipment ID:	material handling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F004</b>
Company Equipment ID:	torching stations
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F005</b>
Company Equipment ID:	scrap metal shredder
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K001</b>
Company Equipment ID:	spray booth
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0103630

**Facility ID:** 0448011189

**Effective Date:** To be entered upon final issuance

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Toledo Department of Environmental Services in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency  
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**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



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## **B. Facility-Wide Terms and Conditions**



State of Ohio Environmental Protection Agency  
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1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



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## **C. Emissions Unit Terms and Conditions**



1. F003, material handling

Operations, Property and/or Equipment Description:

material handling - magnetic separation and conveying of nonferrous material to open storage piles, conveying of ferrous material to open storage piles and ferrous material handling.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>visible fugitive particulate emissions from this emissions unit shall not exceed 10% opacity as a 3-minute average</p> <p>visible particulate emissions from the cyclone stack shall not exceed 10% opacity as a 6-minute average</p> <p>particulate emissions (PE) from the stack serving the cyclone shall not exceed 3.04 pounds per hour</p> <p>fugitive PE from this emissions unit shall not exceed 12.24 pounds per hour</p> <p>particulate matter emissions less than or equal to 10 microns in diameter (PM10) from the stack serving the cyclone shall not exceed 1.06 pounds per hour</p> <p>fugitive PM10 from this emissions unit shall not exceed 4.49 pounds per hour</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		see (2)a.
b.	OAC rule 3745-31-05(D)	PE, stack and fugitive, from this emissions unit shall not exceed 24.60 tons per year  PM10, stack and fugitive, from this emissions unit shall not exceed 8.95 tons per year  see (2)b.
c.	OAC rule 3745-17-07(A)(1)	the emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
d.	OAC rule 3745-17-07(B)(1)	the emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)
e.	OAC rule 3745-17-08(B), (B)(3)	the permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust  see (2)c.

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on all material handling operations for the purpose of ensuring compliance with the above-mentioned applicable PE requirements. In accordance with the permittee's application, the permittee has committed to the maintenance of a moisture content of all processed material sufficient to meet the required visible emission limits above at all times and to maintain minimal drop heights to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- b. Permit to Install and Operate P0103630 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee:
  - i. maintenance of a moisture content of all processed material sufficient to meet the required visible emission limits at all times;
  - ii. maintain minimal drop heights to ensure compliance; and



- iii. restrict the throughput of materials in this emissions unit to 720,000 tons per year measured as the rolling, 12-month total quantity of material shredded and made enforceable based on a maximum of 720,000 tons per year of material shredded at emissions unit F005.
    - c. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the reasonably available technology requirements of OAC rule 3745-17-08.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., conveyors, conveyor transfer points, separators building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the location and color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
- e) Reporting Requirements
  - (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.



f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

visible fugitive particulate emissions from this emissions unit shall not exceed 10% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be determined in accordance with U.S. EPA Method 9, with the following modifications:

- i. the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible emission observations recorded at 15-second intervals;
- ii. opacity observations shall be made from a position that provides the observer a clear view of the emissions unit and the fugitive dust, with the sun behind the observer;
- iii. where possible, visible opacity observations shall be conducted at a position of at least fifteen feet from the source of emissions and the line of sight should be approximately perpendicular to the flow of fugitive dust and to the longer axis of the emissions; and
- iv. the visible opacity observations shall be made for the point of highest opacity within the fugitive dust emitted from the source.

b. Emission Limitation:

visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

c. Emission Limitation:

PE from the stack serving the cyclone shall not exceed 3.04 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit based upon an emissions factor for stack emissions from a Z box separator and cyclone (0.0137 pound of PE per ton for Z-box bleed-off) identified by the Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix



D, Table D-11.E dated 1996, and a maximum shredder processing rate of 224 tons per hour (equivalent to 221.76 tons per hour at the Z box).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-5 of 40 CFR, Part 60 Appendix A and procedures specified in OAC rule 3745-17-03(B)(10). Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

d. Emission Limitation:

fugitive PE from this emissions unit shall not exceed 12.24 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the worst case maximum rate of fugitive emissions from this emissions unit based on a normalization of the maximum annual allowable fugitive emission rate (14.02 tons per year from conveying operations and 5.65 tons per year from fugitive process emissions in the building), the maximum process throughput rate of the shredder (224 tons per year) and the maximum annual total process throughput rate (720,000 tons per year), as follows:

$$(14.02 \text{ tons/yr} + 5.65 \text{ tons/yr PE})(2000 \text{ lb/ton})(224 \text{ tons/hr}) \div (720,000 \text{ tons/yr})$$

e. Emission Limitation:

PM10 from the stack serving the cyclone shall not exceed 1.06 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit based upon an assumption that PM10 constitutes 35% of the PE content.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

f. Emission Limitation:

fugitive PM10 from this emissions unit shall not exceed 4.49 pounds per hour

Applicable Compliance Method:

This emission limitation was established to reflect the worst case maximum rate of fugitive emissions from this emissions unit based on a normalization of the maximum annual allowable fugitive emission rate (5.16 tons per year from conveying operations and 2.06 tons per year from fugitive process emissions in the building), the maximum process throughput rate of the shredder (224 tons



per year) and the maximum annual total process throughput rate (720,000 tons per year), as follows:

$$(5.16 \text{ tons/yr} + 2.06 \text{ tons/yr PM10})(2000 \text{ lb/ton})(224 \text{ tons/hr}) \div (720,000 \text{ tons/yr})$$

g. Emissions Limitations:

PE, stack and fugitive, from this emissions unit shall not exceed 24.60 tons per year

PM10, stack and fugitive, from this emissions unit shall not exceed 8.95 tons per year

Applicable Compliance Method:

These limitations were established by calculations adding the individual contributions of the stack and fugitive sources to reflect the full potential to emit for this emissions unit based on a maximum of 720,000 tons per year of material shredded at emissions unit F005 (712,800 tons per year at the Z box).

Stack PE and PM10 limitations shall be determined by multiplying the emission factor for stack emissions from a Z box separator and cyclone (Z box bleed-off) identified by the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-11.E dated 1996 (0.0137 pound of PE per ton for PE) utilized to generate the short term emissions factor, by the maximum annual throughput of this emissions unit (712,800 tons per year), assuming PM10 to comprise 35% of the PE by weight.

Fugitive PE and PM10 limitations shall be determined by calculations adding the individual contributions of the fugitive sources as follows:

- i. conveyor belt transfer points were estimated using the emission factors taken from AP-42, Chapter 11.19.2. Table 11.19.2-2 EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS dated 8/04: 0.0030 pound PE per ton uncontrolled and 0.00014 pound PE per ton controlled by wet suppression, 0.0011 pound PM10 per ton uncontrolled and 0.000046 pound per ton PM10 controlled by wet suppression and 720,000 tons per year of material shredded at emissions unit F005;
- ii. Z box emissions were estimated as 10% of the stack allowable emissions;
- iii. emissions from the poker picker, magnet, vibrator, combining chute and manual sorting were typified as the equivalent of 10 transfer conveyor belt points;
- iv. 50% effective control was allowed based on a building enclosure; and
- v. PM10 was assumed to comprise 35% of the PE by weight.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:



- a. The emission testing shall be conducted within 180 days of initial start-up.
  - b. The emission testing shall be conducted to demonstrate compliance with the following emissions limitations:
    - i. for visible emissions from the cyclone stack; and
    - ii. for visible emissions from all egress points (i.e., conveyors, separators, building windows, doors, roof monitors, etc.) for which monitoring as performed under d)(1) has indicated the presence of visible emissions.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable visible emissions limitations:
    - i. for the cyclone stack, Method 9 of 40 CFR Part 60, Appendix A; and
    - ii. for all egress points (i.e., conveyors, separators, building windows, doors, roof monitors, etc.) serving this emissions unit for the conveyor transfer points, the procedures outlined in OAC rule 3745-17-03(B)(3) shall be used.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).
  - f. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.
- g) Miscellaneous Requirements
- (1) None.



**2. F004, torching stations**

**Operations, Property and/or Equipment Description:**

19 torching stations, used to disassemble miscellaneous metal parts before they are fed to the shredder

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	fugitive particulate emissions (PE) shall not exceed 4.99 tons per year  fugitive particulate matter emissions less than or equal to 10 microns in diameter (PM10) shall not exceed 4.99 tons per year  see (2)a.
b.	OAC rule 3745-17-07(B)(1)	visible fugitive particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average
c.	OAC rule 3745-17-08(B), (B)(3)	the permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		visible emissions of fugitive dust see (2)b.

(2) Additional Terms and Conditions

a. Permit to Install and Operate P0103630 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for PM10 under OAC rule 3745-31-05(A)(3)(b):

- i. The permittee shall have fire extinguishers of the appropriate type located near any cutting stations and they shall be employed promptly to extinguish any accidental fires caused by cutting operations.
- ii. The permittee shall employ accepted practices when cutting torches are being used to minimize resulting visible emissions. Such practices shall include, but not be limited to, the following items: cutting metal that is clean of any oil(s) or other combustible fluids, the minimization of flame impingement with the ground, and the use of the appropriately sized cutting torch(s).
- iii. Oxygen lances or powder metal cutting will not be used.

Implementation of these control measures will be considered adequate to restrict controlled potential particulate emissions to less than 10.0 tons per year. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the reasonably available technology requirements of OAC rule 3745-17-08.

c) Operational Restrictions

(1) The permittee shall have fire extinguishers of the appropriate type located near any cutting station(s) and they shall be employed promptly to extinguish any accidental fires caused by cutting operations.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain daily records that document, while the emissions unit was in operation, any time periods when:

- a. fire extinguishers of the appropriate type were not located near any cutting station(s); and/or



- b. fire extinguishers were not employed promptly to extinguish any accidental fires caused by cutting operations when the emissions unit was in operation.
- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. Emission Limitation
 

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.



Applicable Compliance Method

Compliance shall be determined in accordance with U.S. EPA Method 9, with the following modifications:

- i. the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible emission observations recorded at 15-second intervals;
- ii. opacity observations shall be made from a position that provides the observer a clear view of the emissions unit and the fugitive dust, with the sun behind the observer;
- iii. where possible, visible opacity observations shall be conducted at a position of at least fifteen feet from the source of emissions and the line of sight should be approximately perpendicular to the flow of fugitive dust and to the longer axis of the emissions; and
- iv. the visible opacity observations shall be made for the point of highest opacity within the fugitive dust emitted from the source.

b. Emissions Limitations:

fugitive PE shall not exceed 4.99 tons per year

fugitive PM10 shall not exceed 4.99 tons per year

Applicable Compliance Method:

Compliance with the fugitive PE and PM10 limitations shall be determined by multiplying the fugitive emission factor for cutting clean steel from the Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-5 dated 1996 (0.06 lb/hr), by the number of torching stations (19) and by the maximum annual operating hours for this emissions unit (8,760 hours per year) divided by 2000 pounds per ton. Should updates in the established emission factor occur, the most current emission factor shall be used to determine compliance with these limitations.

g) Miscellaneous Requirements

- (1) None.



**3. F005, scrap metal shredder**

**Operations, Property and/or Equipment Description:**

224 TPH Scrap metal shredder with electric motor

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	emissions of volatile organic compounds (VOC) from this emissions unit shall not exceed 55.33 pounds per hour  see (2)a. and b.
b.	OAC rule 3745-31-05(D)	visible fugitive particulate emissions from this emissions unit shall not exceed 0% opacity as a 3-minute average  fugitive particulate emissions (PE) shall not exceed 0.86 ton per year  fugitive particulate matter emissions less than or equal to 10 microns in diameter (PM10) shall not exceed 0.30 ton per year  emissions of VOC from this emissions unit shall not exceed 88.92 tons per rolling, 12-month period



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		see (2)c.
c.	OAC rule 3745-17-07(B)(1)	the emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)
d.	OAC rule 3745-17-08(B), (B)(3)	the permittee shall utilize reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust  see (2)d.

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures on all shredding operations for the purpose of ensuring compliance with the above-mentioned applicable VOC requirements. In accordance with the permittee's application, the permittee has committed to a program of operational practices designed to limit the amount of VOC entering the airstream with the scrap including the removal (draining) of combustible and VOC containing fluids from uncrushed autos, communication to upstream suppliers of OmniSource's Prohibited Materials Program policies and a "once through" water usage in the shredder

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- b. Prior to shredding uncrushed automobiles, appliances, scrap metal, etc., the following items shall be removed (to the extent practicable):
  - i. gasoline tanks;
  - ii. batteries;
  - iii. all combustible fluids;
  - iv. all refrigerants from air conditioning systems; and
  - v. any mercury containing convenience switches or components.
- c. Permit to Install and Operate P0103630 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee:
  - i. restrict the throughput of materials in this emissions unit to 720,000 tons per year measured as the rolling, 12-month total quantity of material;



- ii. removal (draining) of all combustible fluids from materials being processed;
  - iii. water sprays directed at the input chute, cutterhead and output chute; and
  - iv. "once through" water usage in the shredder.
- d. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the reasonably available technology requirements of OAC rule 3745-17-08.

c) Operational Restrictions

- (1) Water shall be injected directly into the shredder at the cutterheads, at the input chute and the output chute to control dust emissions. Monitoring, recordkeeping and reporting requirements for the water injection system are not required due to the water injection system being an inherent part of the shredding process.
- (2) The moisture content of all processed material shall be maintained sufficiently high enough to meet the required visible emission limits above at all times.
- (3) The maximum annual production rate for this emissions unit shall not exceed 720,000 tons per year, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

Month	Maximum Allowable Cumulative Production
1	160,000
1-2	320,000
1-3	480,000
1-4	640,000
1-5	720,000
1-6	720,000
1-7	720,000
1-8	720,000
1-9	720,000
1-10	720,000
1-11	720,000
1-12	720,000



After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall maintain monthly records of any failure to remove prior to shredding automobiles, appliances, scrap metal, etc., the following items:
  - a. gasoline tanks;
  - b. batteries;
  - c. all combustible fluids;
  - d. all refrigerants from air conditioning systems; and
  - e. all mercury containing convenience switches or components.
- (2) The permittee shall maintain monthly records of the following information:
  - a. the production rate for each month; and
  - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the production rates.
- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., feeder, shredder, discharge chute, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the



emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. all exceedances of the rolling, 12-month production rate limitation; and
  - ii. for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative production rate levels;
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the Toledo Division of Environmental Services).

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

visible fugitive particulate emissions from this emissions unit shall not exceed 0% opacity as a 3-minute average



Applicable Compliance Method:

Compliance shall be determined in accordance with U.S. EPA Method 9, with the following modifications:

- i. the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible emission observations recorded at 15-second intervals;
- ii. opacity observations shall be made from a position that provides the observer a clear view of the emissions unit and the fugitive dust, with the sun behind the observer;
- iii. where possible, visible opacity observations shall be conducted at a position of at least fifteen feet from the source of emissions and the line of sight should be approximately perpendicular to the flow of fugitive dust and to the longer axis of the emissions; and
- iv. the visible opacity observations shall be made for the point of highest opacity within the fugitive dust emitted from the source.

b. Emission Limitation:

fugitive PE shall not exceed 0.86 ton per year

fugitive PM10 shall not exceed 0.30 ton per year

Applicable Compliance Method:

These limitations were established to reflect the full potential to emit for this emissions unit based on a maximum of 720,000 tons per year of material shredded utilizing a company supplied emissions factor (0.0024 lb PE/ton) determined during stack testing of a similar emissions unit. PM10 was established as 35% of the PE emissions.

If required, the permittee shall demonstrate compliance with the short term emission limitations (lb/ton) in accordance with Methods 1 thru 5 of 40 CFR Part 60, Appendix A and Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

If required, the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)



c. Emission Limitation:

emissions of VOC from this emissions unit shall not exceed 55.33 pounds per hour

This limitation was established to reflect the full potential to emit for this emissions unit utilizing a company supplied emissions factor (0.247 lb VOC/ton) determined during stack testing of a similar emissions unit.

If required, the permittee shall demonstrate compliance with this emission limitations in accordance with Methods 1 thru 4 and 25 or 25 A, as appropriate, of 40 CFR Part 60, Appendix A, and the procedures outlined in OAC rule 3745-21-10(C). Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

If required, the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

d. Emission Limitation:

emissions of VOC from this emissions unit shall not exceed 88.92 tons per rolling, 12-month period

Applicable Compliance Method:

These limitations were established to reflect the full potential to emit for this emissions unit based on a maximum of 720,000 tons per rolling, 12-month period of material shredded utilizing a company supplied emissions factor (0.247 lb VOC/ton) determined during stack testing of a similar emissions unit.

If required, the permittee shall demonstrate compliance with the short term emission limitation (lb/ton) in accordance with Methods 1 thru 4 and 25 or 25 A, as appropriate, of 40 CFR Part 60, Appendix A, and the procedures outlined in OAC rule 3745-21-10(C). Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:



- a. The emission testing shall be conducted within 90 days of achieving the maximum capacity at which this emissions unit will be operated, but not less than 180 days after initial startup.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable visible particulate emissions limitation.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):  
  
U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).
- f. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

g) Miscellaneous Requirements

- (1) None.



**4. K001, spray booth**

**Operations, Property and/or Equipment Description:**

Miscellaneous coating operations

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - a. c)(3) and d)(4)
  - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<p>particulate emissions (PE) from the stack serving this emissions unit shall not exceed 0.01 ton per year</p> <p>particulate matter emissions less than or equal to 10 microns in diameter (PM10) from the stack serving this emissions unit shall not exceed 0.01 ton per year</p> <p>the emissions of volatile organic compound (VOC) from the stack serving this emissions unit shall not exceed 3.66 tons per rolling 12-month period, including both coatings and cleanup materials</p> <p>see (2)a.</p>
b.	OAC rule 3745-17-07(A)(1)	visible emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six - minute



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		average, except as specified by rule
c.	OAC rule 3745-17-11(B)(1)	PE from the stack serving this emissions unit shall not exceed 0.551 pound per hour
d.	OAC rule 3745-21-09(U)(2)(e)(iii)	Exempt, see (2)b.

(2) Additional Terms and Conditions

- a. Permit to Install and Operate P0103630 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for PM10 under OAC rule 3745-31-05(A)(3)(b):
  - i. the permittee shall not use more than 10 gallons of coating material per day;
  - ii. the permittee shall not use more than 1500 gallons of coating material per rolling, 12-month period;
  - iii. the permittee shall a maximum 4.88 pound of VOC per gallon coating material, as applied, for the coating of miscellaneous metal parts;
  - iv. the permittee shall utilize no VOC containing clean up materials or solvents in the coating operations for parts cleaning, thinning or reducing coatings, to clean paint guns, booth walls, etc.;
  - v. all coating operations will utilize an airless spray gun; and
  - vi. all coating operations will utilize a paint spray booth equipped with an exhaust gas filtration system.
- b. The permittee shall not use more than 10 gallons of coating material per day for the coating of miscellaneous metal parts.

c) Operational Restrictions

- (1) The permittee shall operate the dry filtration system for control of particulate emissions whenever this emissions unit is in operation.
- (2) The maximum annual coating usage rate for this emissions unit shall not exceed 1,500 gallons per year, based upon a rolling, 12-month summation of the coating usage rates.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the coating usage levels specified in the following table:



Month	Maximum Allowable Cumulative Coating Usage (gallons)
1	300
1-2	600
1-3	900
1-4	1,200
1-5	1,500
1-6	1,500
1-7	1,500
1-8	1,500
1-9	1,500
1-10	1,500
1-11	1,500
1-12	1,500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual coating usage rate limitation shall be based upon a rolling, 12-month summation of the coating usage rates.

- (3) Prior to the use of any coating in this coating line, the permittee shall determine that the coating meets the toxic screening criteria described below.

Purpose: The purpose of this test is to evaluate coatings to determine if the chemical compounds in the coatings would be emitted at acceptable levels for the general permit.

Data Needed: (1) MSDS sheet for each coating to be evaluated. (2) Information on the maximum coating usage rate for the line as discussed in Step 1 below.

Step 1. Using the following factors, calculate the maximum coating usage rate in terms of gallons per hour:

- a. Assume the coating line operates at its maximum speed while still making usable product.
- b. Assume the coating line is operating at its largest coating laydown rate. This would typically be accomplished by assuming the coating line is painting the largest part available.

Step 2. Review the material safety data sheet (MSDS) for the coating. Note each chemical compound listed its TLV and the percent by weight of the chemical compound in the coating.



Step 3. Determine if any of the chemical compounds listed in the MSDS are also listed in the following table. If any of the chemical compounds are listed in the table, then calculate the maximum annual emission of that compound by multiplying the maximum coating usage rate times the percent by weight of each chemical compound. Then multiply the result by 8760 hours per year. The result will be in pounds per year.

Check to see if the calculated emission rate is less than the allowable emission rate found in the below table. If all of the compounds emitted have a maximum annual emission of less than the allowed rate, then move on to step 4. If any of the compounds are emitted at a rate higher than the allowed emission rate, then contact your appropriate District Office or local air agency contact to determine if you can use the coating.

Chemical Compound	CAS	Molecular Weight (MW)	Allowed Emission Rate (lb/year)
arsenic compounds, as As	7440-38-2	74.92	1.70
benzene	71-43-2	78.11	1100
benzidine	92-87-5	184.23	5.60
benzo(a)pyrene	50-32-8	252.30	6.90
beryllium (and Be compounds)	7440-41-7	9.01	0.350
Cadmium	7440-43-9	112.4	5.20
Chromium	7440-47-3	varies	0.690
Hexachlorobenzene (HCB)	118-74-1	289.78	35.0
mercury (and Hg compounds)	7439-97-6	200.59	0.1
nickel (Ni subsulfide)	12035-72-2	240.19	17.0
Polychlorinated dibenzo-p-dioxins	1746-01-6	varies	0.030
Polychlorinated dibenzofurans	132-64-9	varies	0.030
polychlorinated biphenyls (PCBs, aroclors)	1336-36-3	varies	87.0
vinyl chloride	75-01-4	62.50	2000

Step 4. Find all of the chemical compounds in the coating that have a listed American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV). For each chemical compound with a listed TLV (other than those in the above table), calculate the maximum short-term emission rate by multiplying the maximum coating usage rate times the percent by weight of each chemical compound. The result should be in terms of pounds of the chemical compound per hour.

Step 5. Determine if the compound will be emitted at or below the acceptable rate. This is done by searching the following table for the chemical compound's TLV and then determining the maximum allowed emission rate listed in the below table. (Note. If the TLV is listed as ppm, then convert the TLV to  $\mu\text{g}/\text{m}^3$  by using the following formula:  $(\text{TLV in ppm}) \times (\text{MW}) \times (1000) / 24.45 = \text{TLV in } \mu\text{g}/\text{m}^3$ ; where MW is the molecular weight of the compound.) This table lists the allowable emission rates for compounds with a TLV between the high range and low range. Compare the maximum calculated short-term emission rate of each chemical compound to the allowed emission rate in the table. If



the maximum emission rate is less than the allowed emission rate, then the chemical compound is emitted at an acceptable rate.

TLV Range ( $\mu\text{g}/\text{m}^3$ ) (The TLV must be less than the high value listed and greater than or equal to the low value listed)		Allowed Emission Rate (lb/hr)
15	1	0.000067
30	15	0.0010
60	30	0.0020
120	60	0.0040
240	120	0.0080
480	240	0.0160
960	480	0.0320
1,920	960	0.0640
3,840	1,920	0.128
7,680	3,840	0.256
15,360	7,680	0.512
30,720	15,360	1.02
61,440	30,720	2.05
122,880	61,440	4.10
245,760	122,880	8.19
491,520	245,760	16.4
983,040	491,520	32.8
1,966,080	983,040	65.5
3,932,160	1,966,080	131

Step 6. Check each chemical compound that has a listed TLV. If all compounds are emitted at a rate less than the allowed emission rate, then the coating passes the toxic screening test and can be used under this permit. If one or more of the chemical compounds are emitted at a rate greater than the allowed emission rate, then you should contact your appropriate District Office or local air agency contact to determine if you can use the coating.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain daily records that document any time periods when the dry filtration system was not in service when the emissions unit was in operation.
- (2) The permittee shall collect and record the following information each day for this emissions unit:
  - a. the name and identification number of each coating employed in the coating line;
  - b. the mass of VOC per volume of each coating (excluding water and exempt solvents), as applied;
  - c. the volume, in gallons, of each coating employed in the coating line; and



- d. the total volume, in gallons, of all of the coatings employed in the coating line.

These records shall be maintained for a period of not less than three years.

- (3) The permittee shall collect and record the following information for each month for this emissions unit:

- a. the company identification of each VOC containing cleanup material employed;
- b. the VOC content of each cleanup material employed, in pounds per gallon;
- c. the number of gallons of each VOC containing cleanup material employed;
- d. the total volume, in gallons, of all of the coatings employed in the coating line; and
- e. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the coating usage rates. Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

- (4) The permittee shall collect and record the results of any toxic screening evaluations done per c)(3).

e) Reporting Requirements

- (1) The permittee shall notify the Director (the City of Toledo, Division of Environmental Services) in writing of any daily record showing that the coating line employed more than the applicable maximum daily coating usage limit of 10 gallons per day. The notification shall include a copy of such record and shall be sent to the Director (the City of Toledo, Division of Environmental Services) within 45 days after the exceedance occurs.

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. all exceedances of the 4.88 pounds of VOC per gallon of coating limitation;
  - ii. all exceedances of the no VOC containing clean up materials or solvents limitation;
  - iii. all exceedances of the rolling, 12-month coating usage rate limitation; and
  - iv. for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative coating usage rate levels.



- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the Toledo Division of Environmental Services).

- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

- a. Emissions Limitation:

10 gallons per day total coating usage

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(2).

- b. Emissions Limitation:

4.88 pounds of VOC per gallon of coating

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(3).

If required, the permittee shall demonstrate compliance through the methods and procedures of OAC rule 3745-21-10(B). USEPA Methods 24 shall be used to determine the VOC contents of the coatings. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.



c. Emissions Limitation:

no VOC containing clean up materials or solvents

Applicable Compliance Method:

Compliance shall based upon the record keeping specified in d)(3).

d. Emissions Limitation:

3.66 tons per year of VOC emissions from coatings

Applicable Compliance Method:

This limitation was established to reflect the full potential to emit for this emissions unit based on a maximum coating usage of 1,500 gallons per rolling, 12-month period utilizing a maximum 4.88 pounds of VOC per gallon coating material, as applied, and no VOC containing clean up materials. Compliance shall based upon the record keeping specified in d)(3).

e. Emission Limitation:

0.551 lb of PE per hour

Applicable Compliance Method:

To determine the worst case PE rate, the following equation shall be used:

$$E = \text{maximum coating solids usage rate, in pounds per hour,} \times (1-TE) \times (1-CE)$$

Where E = PE rate (lbs/hr);

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.80) based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 4.2.2.4-2. ESTIMATED CONTROL EFFICIENCIES FOR METAL COATING LINES dated 1/95);

CE = fractional control efficiency of the control equipment (0.99).

When requested by the Ohio EPA, the permittee shall demonstrate compliance with the above emissions limitation pursuant to OAC rule 3745-17-03(B)(10).

f. Emission Limitation:

0.01 ton of PE per year

0.01 ton of PM10 per year

Applicable Compliance Method:

These limitations were established to reflect the full potential to emit for this emissions unit based on a maximum application rate of 1,500 gallons per rolling,



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0103630

**Facility ID:** 0448011189

**Effective Date:** To be entered upon final issuance

12-month period of material. Compliance with the fugitive PE and PM10 limitations shall be determined utilizing factors from AP-42 Table 4.2.2.1-2 TYPICAL DENSITIES AND SOLIDS CONTENTS OF COATINGS as follows: multiply the maximum coating usage rate (1500 gallons per year) by the characteristic enamel density (7.6 pounds per gallon), by the characteristic solids content (0.30 pound of solid per pound of coating), by 1 minus the characteristic transfer efficiency (1-80%), by 1 minus the control efficiency (1-99%) and divide by 2000 pounds per ton.

g) Miscellaneous Requirements

- (1) None.