



TO: Interested Parties / Applicant

RE: Capitol City Metals, LLC / Registration 097-17949-00111

FROM: Felicia A. Robinson
Administrator
Office of Environmental Services

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

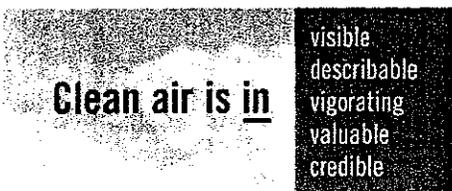
- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw



August 25, 2006

Mr. Matt McKinney
General Manager
Capitol City Metals, LLC
311 South Shelby Street
Indianapolis, IN 46202

CERTIFIED MAIL 7000 0600 0023 5186 2767

Re: Registered Construction and Operation Status
R097-17949-00111

Dear Mr. McKinney:

The application from Capitol City Metals, LLC received on July 17, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following metal shredding plant, located at 311 South Shelby Street, Indianapolis, Indiana, 46202 is classified as registered:

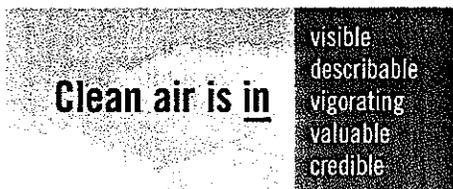
One (1) metal shredding operation with a nominal capacity of 67.9 tons per hour of metal, consisting of the following:

- (a) One (1) metal / fluff separation cascade, identified as 0001, with emissions controlled by a cyclone deemed an integral part of the separation process, and exhausting at stack #1, installed in June 1991.
- (b) One (1) shredder operation installed in June 1991, identified as 0002, with emissions controlled by a Smart water injection system installed in 2003 and deemed an integral part of the shredding process.
- (c) Paved and unpaved roads and parking lots with public access.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) metal / fluff separation cascade, identified as 0001, and the one (1) shredder operation, identified as 0002, shall each not exceed 47.5 pounds per hour when operating at a process weight rate of 67.9 tons per hour.

The pounds per hour limitation was calculated with the following equation:



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

In order to comply with 326 IAC 6-3-2, the cyclone for metal / fluff separation and the water injection system for the shredder operation shall be in operation and control particulate emissions at all times that the metal / fluff separation and the shredder processes are in operation.

- (c) Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.
- (d) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).
- (e) Visible emission notations of the metal/fluff separation stack exhaust # 1 shall be performed at least once per day, during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal from stack exhaust # 1. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. Records of all visible emission notations shall be retained for a period of at least five (5) years from the date of notation. Once per day visible emissions notations operation checks are required to be performed in order to ensure that the metal / fluff separation cascade is operating properly and in order to demonstrate compliance with 326 IAC 5 and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).
- (f) The Permittee shall check, at least once per day, that the water injection system is in operation when the shredder process is in operation. Once per day water injection system operation checks are required to be performed in order to ensure that the shredder operation water injection system is operating properly and in order to demonstrate compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).
- (g) Pursuant to Chapter 511 "Air Pollution Control Ordinance", Sections 511-503 and 511-504 of the Revised Code of the Consolidated City of Indianapolis and Marion County, Indiana, the Permittee shall comply with the provisions of the "Fugitive Particulate Matter Emission Control Plan" included as Attachment A to this Registration. This provision is enforceable by the City of Indianapolis through its Department of Public Works, Office of Environmental Services. This condition is a "local only" condition. It is not enforceable under state or federal law by IDEM or U.S.EPA.

This registration is issued in replacement of FESOP 097-13884-00111 which is revoked with FESOP Revocation 097-23338-0011. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Indiana Department of Environmental Management (IDEM) Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental

Services (OES) that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204-2251

and

Office of Environmental Service, Compliance Data Group
City of Indianapolis
2700 S. Belmont Avenue
Indianapolis, IN 46221

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and OES if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,



Felicia A. Robinson
Administrator

MBC

cc: File
Air Compliance – Matt Mosier
IDEM, OAQ – Mindy Hahn
Marion County Health Department

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	Capitol City Metals, LLC
Address:	311 South Shelby Street
City:	Indianapolis
Authorized individual:	Matt McKinney
Phone #:	(317) 634-7175
Registration #:	097-17949-00111

I hereby certify that Capitol City Metals, LLC is still in operation and is in compliance with the requirements of Registration **097-17949-00111**.

Name (typed):
Title:
Signature:
Date:

ATTACHMENT A
To Registration 097-17949-00111
Capitol City Metals, LLC
Fugitive Particulate Matter Emission Control Plan

July 14, 2006

Capitol City Metals, LLC
General Manager
311 South Shelby Street
Indianapolis, IN 46202

Vehicle and Equipment Traffic

Vehicles leaving the site will be prepared according to the type of material they are hauling:

- Finished Product (SHREDS) will be loaded in a manner so that the material in the middle will not exceed 18" above the sideboards.
- Waste (FLUFF) will be loaded in a manner so that the material in the middle will not exceed 18" above the sideboards. All Fluff loads will be tarped.

Roadways (Paved and Unpaved) and Parking Areas

Paved Roads and Parking Lots
Unpaved Roads and Parking Lots
Typical Quantity Per Day

Vehicle type

Employee vehicles

30
0

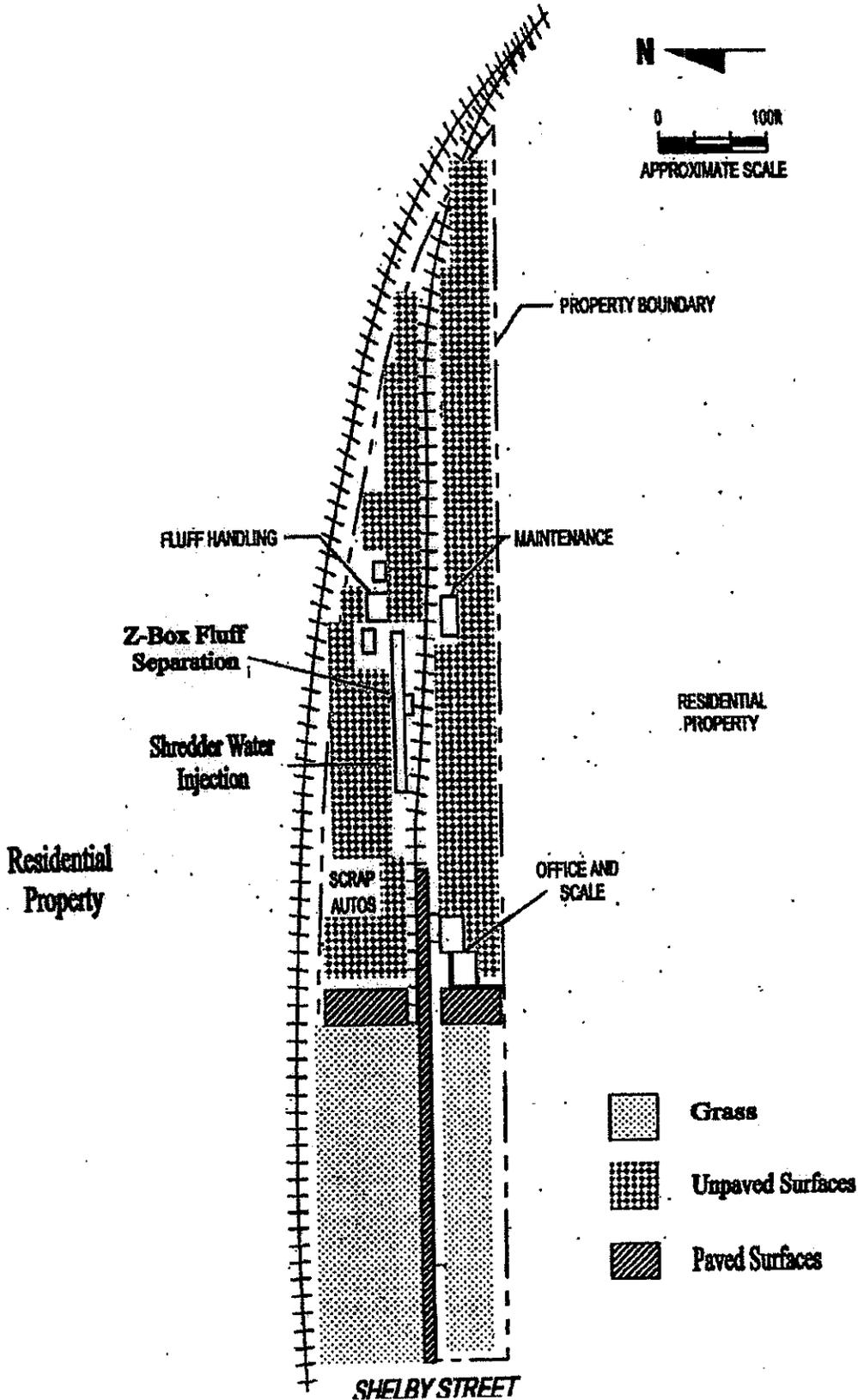
Trucks - 18-wheel, tri- & dual axle pickups

120
120

Fugitive Particulate Matter Emission Control Plan

- The dust on the unpaved site roadways and other unpaved traffic areas will be controlled, as needed, by applications of water, calcium chloride, or other appropriate dust control compounds. The concentration of the dust control compounds will be applied using the manufacturer's recommendations.
- All paved facility roadways will be swept as needed.
- Sweeping and spraying logs shall be kept and maintained. Said records shall be available for inspection by the City of Indianapolis Office of Environmental Services (OES) and shall be retained for a period of at least three (3) years.
- Material Shredding Operation – Nominal capacity of 67.9 tons/hour of automobiles, appliances, and other light-gauge scrap steel. Potential fugitive particulate matter emissions from the Hammermill will be controlled by the Water Injection System, with a minimum flow rate of nine (9) gallons per minute, to be increased on an as-needed basis to control dust.
- The drop distance at each transfer point throughout the plant will be reduced as reasonable to the minimum level appropriate for the process throughput at any given time of operation.
- Metal / Fluff Separation Cascade - Nominal capacity of 67.9 tons/hour of shredded ferrous scrap, non-ferrous material, and fluff
- Potential fugitive particulate matter emissions from the Z-Box operation will be controlled by a cyclone.
- The drop distance at each transfer point throughout the plant will be reduced as reasonable to the minimum level appropriate for the process throughput at any given time of operation.
- Material Handling
- Stockpiling of all nonmetallic materials will be performed in a manner that the drop distance at each transfer point is reduced as reasonable to the minimum level appropriate for the process throughput at any given time of operation.
- Stockpiles will be watered on an as-needed basis.

ATTACHMENT A
To Registration 097-17949-00111
Capitol City Metals, LLC
Fugitive Particulate Matter Emission Control Plan



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES**

Technical Support Document (TSD) for the Transition to a Registration

Source Background and Description

Source Name:	Capitol City Metals, LLC
Source Location:	311 South Shelby Street, Indianapolis, IN 46202
County:	Marion
SIC Code:	5093
Operation Permit No.:	F097-13884-00111
Operation Permit Issuance Date:	April 9, 2003
Registration No.:	097-17949-00111
Permit Reviewer:	M. Caraher

The Indiana Department of Environmental Management (IDEM) Office of Air Quality (OAQ) and Indianapolis Office of Environmental Services (OES) have reviewed an application from Capitol City Metals, LLC relating to the operation of a metal shredding plant.

History

Capitol City Metals, LLC was issued FESOP Renewal, F097-13884-00111, on April 9, 2003.

Operation of a water injection system, as an additional control measure for the shredder operation, began in July 2003. An application from Capitol City Metals, LLC to replace the existing shredder operation's cyclone and scrubber control with the water injection system as the sole control system was received by OES on July 17, 2003. Capitol City Metals, LLC continues to operate the scrubber and cyclone for the shredder operation, pursuant to FESOP Renewal F097-13884-00111, until such time as a permit revision or transition approval grants operation of the water injection system as the sole control system.

On April 7, 2004, Capitol City Metals, LLC submitted an administrative amendment application request, 097-19304-00111, to delete 326 IAC 2-6 (Emission Reporting) from the existing FESOP for this source, 097-13884-00111, to reflect the March 27, 2004 rule revisions to 326 IAC 2-6. The amendment application request is combined in to this Registration, 097-17949-00111.

On February 8, 2005, Capitol City Metals, LLC performed stack testing using water injection as the sole control system and demonstrated compliance with 326 IAC 6.5-1-2(a) and Condition D.1.2 of F097-13884-00111. Particulate matter (PM) emissions were 0.006 gr/dscf and 0.16 pounds per hour. The minimum water injection flow rate observed during the stack test was 0.15 gallons per second (9.0 gallons per minute). The averaged capacity during the test was 67.9 tons metal per hour. IDEM, OAQ and OES each witnessed the stack test.

On March 25, 2006, the Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental Services (OES) had a notice published in the Indianapolis Star newspaper stating Capitol City Metals, LLC had applied for a Significant Permit Revision to a Federally Enforceable

State Operating Permit relating to the replacement of the existing shredder operation's cyclone and scrubber control with a water injection system as control.

On April 25, 2006, Hatchett & Hauck, LLP, submitted comments on the draft Significant Permit Revision to a Federally Enforceable State Operating Permit on behalf of Capitol City Metals, LLC.

Based on Hatchett & Hauck, LLP submitted comments, the potential to emit regulated air pollutants from the source was reevaluated. Based on reevaluated potential to emit regulated air pollutants, Capitol City Metals, LLC is now a Registration. The source will not be subject to the requirements of the permit that was on public notice, but rather will be subject to the attached Registration, 097-17949-00111. In addition, the existing FESOP Renewal for Capitol City Metals, LLC, F097-13884-00111, is revoked with Revocation 097-23338-00111.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

One (1) metal shredding operation with a nominal capacity of 67.9 tons per hour of metal, consisting of the following:

- (a) One (1) metal / fluff separation cascade, identified as 0001, with emissions controlled by a cyclone deemed an integral part of the separation process, and exhausting at stack #1, installed in June 1991.
- (b) One (1) shredder operation installed in June 1991, identified as 0002, with emissions controlled by a Smart water injection system installed in 2003 and deemed an integral part of the shredding process.
- (c) Paved and unpaved roads and parking lots with public access.

Existing Approvals

The source was issued FESOP Renewal, F097-13884-00111, on April 9, 2003.

All conditions from previous approvals were incorporated into this Registration except the following:

1. F097-13884-00111 issued on April 9, 2003, Condition C.18 (Emission Statement):

C.18 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis Office of Environmental Services
2700 South Belmont Avenue

Indianapolis, Indiana 46221

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and OES on or before the date it is due.

Reason not incorporated:

Rule revisions to 326 IAC 2-6 (Emission Reporting) became effective March 27, 2004. Due to the revision to the state rule, this source is no longer subject to 326 IAC 2-6-1(a) (Emission Reporting) because it is located in Marion County, it does not have an operating permit under 326 IAC 2-7 (Part 70 Permit Program), and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. In addition, Capitol City Metals, LLC submitted an Administrative Amendment application, 097-19304-00111, on April 7, 2004 requesting that Condition C.18 be deleted to reflect the March 27, 2004 rule revisions.

2. F097-13884-00111 issued on April 9, 2003, Condition B.10 Compliance with Permit Conditions:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

Reason not incorporated:

Based on the reevaluation of the potential to emit regulated air pollutants from the source, this source is now Registration level. Therefore, Condition B.10 is no longer necessary. Based on the revised potential to emit regulated air pollutants from Capitol City Metals, LLC, the Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC.

3. F097-13884-00111 issued on April 9, 2003, Condition C.1 Overall Source Limit:

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) not applicable;
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.
- (c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

Reason not incorporated:

The purpose of Condition C.1 (Overall Source Limit) was to limit this source's potential to emit, pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program), to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

Based on the reevaluation of the potential to emit regulated air pollutants from the source, Capitol City Metals, LLC is no longer a major source for PM-10 emissions opting to be permitted pursuant to the provisions of 326 IAC 2-8 (Federally Enforceable State Operating Permit Program). Therefore, Condition C.1 is no longer an applicable requirement and no longer exists.

Based on the revised potential to emit regulated air pollutants from Capitol City Metals, the Registration, 097-17949-00111, will be issued to Capitol City Metals.

4. F097-13884-00111 issued on April 9, 2003, Condition D.1.1 Particulate Matter 10 Microns:

D.1.1 Particulate Matter 10 Microns (PM-10) FESOP Limit [326 IAC 2-8]

The combined total PM-10 emissions from the metal/fluff cascade separator and the shredder shall be limited to less than 22.8 pounds per hour. This limitation is equivalent to a potential to emit of less than 100 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Reason not incorporated:

The purpose of Condition D.1.1 (Particulate Matter 10 Microns (PM-10) FESOP Limit) was to limit the combined potential to emit PM-10 from individual emission units and the source to less than major source levels, pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program), such that 326 IAC 2-7 (Part 70 Permit Program) did not otherwise apply to the source.

Based on the reevaluation of the potential to emit regulated air pollutants from the source, Capitol City Metals is no longer a major source for PM-10 opting to be permitted pursuant to the provisions of 326 IAC 2-8 (Federally Enforceable State Operating Permit Program). Therefore, Condition D.1.1 is no longer an applicable requirement and no longer exists.

Based on the revised potential to emit regulated air pollutants from Capitol City Metals, the Registration, 097-17949-00111, will be issued to Capitol City Metals.

5. F097-13884-00111 issued on April 9, 2003, Condition D.1.2 Particulate Emissions:

D.1.2 Particulate Emissions [326 IAC 6.5-1-2(a)]

The particulate matter emissions from the metal/fluff cascade separator and the shredder shall each be limited to three hundredths (0.03) grains per dry standard cubic foot of exhaust air.

Reason not incorporated:

Based on the reevaluation of the potential to emit particulate from the source, Capitol City Metals is no longer subject to the provisions of 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County) because Capitol City Metals no longer has the potential to emit greater than one hundred (100) tons per year of particulate or has actual emissions greater than ten (10) tons per year. Therefore, 326 IAC 6.5-1-2(a) and Condition D.1.2 (Particulate Matter) are each no longer an applicable requirement.

Based on the revised potential to emit regulated air pollutants from Capitol City Metals, the Registration, 097-17949-00111, will be issued to Capitol City Metals.

Justification for the Transition from a FESOP to a Registration

The reevaluated potential to emit regulated air pollutants from Capitol City Metals, LLC are each now less than one hundred (100) tons per year (see TSD Appendix A). Therefore, Capitol City Metals is no longer a major source. The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM-10 are each greater than five (5) tons per year but less than twenty five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A Registration will be issued pursuant to the provisions of 326 IAC 2-5.5.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justifications such that the Smart water injection system on the metal shredder (0002) and the cyclone on the metal / fluff separation cascade (0001) be considered as an integral part of the metal shredding process and the ferrous/non-ferrous metal separation processes, respectively:

- (a) The materials input to the metal shredder consist primarily of crushed and uncrushed automobile bodies. These junk vehicle bodies typically contain flammable liquids and flammable solids. The high speed shearing action of the cutters on the Wendt metal shredder creates high instantaneous temperatures and sparks. The simultaneous presence of flammable materials and ignition sources may result in fires and explosions within the machinery. In order to prevent this, a Smart water injection system is utilized in the metal shredder's hammermill, thereby, thoroughly wetting the material to be shredded. This wetting process both prevents explosions within the machinery and extinguishes any materials that ignite.

This wetting process is considered integral to the process because:

1. The water injection system serves a primary purpose other than pollution control. The purpose of the water injection system is to prevent fires and explosions

within the machinery. Any fire or explosion of flammable materials within the machinery would damage it and, therefore, must be prevented. Also, any solid materials that caught fire would be transported via automatic conveyor to downline processes, with the possibility of damaging other equipment.

2. The process cannot operate without the Smart water injection system. The Smart water injection system is designed by the manufacturer of the equipment to operate whenever the shredder operates. The constant operation of the water injection system while the shredder is in operation prevents explosions and fires which could result in damage to the shredding machine and unplanned shutdowns of the process. Damage to the machinery would result in repair and replacement costs. Process shutdowns would result in loss of revenue. Either of these results would have substantial negative financial impacts on the company.
- (b) The metal / fluff separation process sorts the shredded metal into ferrous, nonferrous and mixed (tramp) metals by use of an air powered centripetal process. Upon entering the metal separator, the stream of shredded metal is first sorted with magnets into ferrous and non-ferrous materials streams. The "ferrous" materials stream (which, at this point in the process still contains about 4% non-ferrous materials by weight) then enters the z-box/cyclone where, by use of air currents, it is spun, sorted, separated and collected into ferrous and non-ferrous material streams.

The z-box/cyclone is considered integral to process because:

1. The z-box/cyclone serves a primary purpose other than pollution control. The z-box/cyclone is part of the materials sorting and collection mechanism. Its use enables high quality sorting of the input material into ferrous and non-ferrous materials in a one-pass-through operation. (Without use of the cyclone, a poor quality sorting of materials occurs, requiring reprocessing.)
2. The process cannot operate without the z-box/cyclone. The cyclone creates the air current needed in the z-box/cyclone to sort the shredded metal that passes through the z-box/cyclone into ferrous and nonferrous materials. Without the air current, the shredded metal is not sorted.

IDEM, OAQ and OES have evaluated the justifications and agreed that the Smart water injection system on the metal shredder and the z-box/cyclone on the metal / fluff separation cascade each will be considered as an integral part of the metal shredding and metal separation processes, respectively. Therefore, the permitting level will be determined using the potential to emit after the water injection system and cyclone (see TSD Appendix A calculation spreadsheets that reflect the potential to emit for the source after integral controls).

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
1	Metal / fluff separator (0001)	52	1.63	7000	ambient
Not applicable (NA)	Shredder Operation (0002)	NA	NA	NA	NA

Recommendation

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 17, 2003. Additional information was received on August 13, 2003, September 22, 2003, April 7, 2004 and on October 1, 2004. OAQ and OES approved the compliance stack test protocol for testing the water injection system as the sole control system prior to the compliance stack test. OAQ and OES observed the stack test on February 8, 2005. The compliance stack test report was submitted to OES on February 25, 2005.

Emission Calculations

See Appendix A pages 12 through 15 of this document for detailed emission calculations.

Potential to Emit of the Source After Integral Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit (PTE) is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

Pollutant	Potential to Emit (tons/year)
PM	17.94
PM-10	16.37
SO ₂	0.0
VOC	0.4
CO	0.0
NO _x	0.0

Note: For the purpose of determining Part 70 Operating Permit applicability, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential to Emit (tons/year)
Benzene	0.1
Total	0.4

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM-10 are each greater than five (5) tons per year but less than twenty five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A Registration will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of any combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7. A Registration will be issued.
- (c) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-2.5	nonattainment
PM-10	attainment
SO ₂	maintenance attainment
NO ₂	attainment
8-hour Ozone	basic nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Marion County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.
- (c) Marion County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Emission Offset, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	17.94
PM-10	16.37
SO ₂	0.0
VOC	0.4
CO	0.0
NO _x	0.0
Single HAP	0.1
Combination HAPs	0.4

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.
- (c) Emissions are listed based upon the potential to emit determination for regulated air pollutants as stated in Appendix A to this Technical Support Document. The emissions listed include the potential to emit after integral controls for the shredder operation, identified as 0002, and the metal / fluff separation cascade, identified as 0001 (operation of the Smart water injection system for the shredder and operation of the cyclone for the metal / fluff separation cascade and 8760 annual operating hours).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 097-17949-00111, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OES inspector assigned to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this Registration.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) included in this Registration.

State Rule Applicability – Entire Source

326 IAC 2-1.1-5 (Non-attainment New Source Review)

This source is not major under nonattainment NSR because it has the potential to emit less than 100 tons of PM10 (as surrogate for PM2.5). Therefore, the Non-attainment New Source Review requirements are not applicable.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) and 326 IAC 2-3 (Emission Offset)

This existing source is not a major stationary source because no attainment regulated pollutant emissions are equal to or greater than two hundred fifty (250) tons per year, this source is not one of the 28 listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and no attainment or nonattainment regulated pollutant emissions are equal to or greater than one hundred (100) tons per year. There have been no modifications or revisions to this source that were major modifications pursuant to 326 IAC 2-2 or 326 IAC 2-3. Therefore, this source is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) and 326 IAC 2-3 (Emission Offset).

326 IAC 2-4.1 (New Source Toxics Control)

This existing source has the potential to emit source-wide HAP emissions of less than ten (10) tons per year of any single HAP and less than twenty-five (25) tons per year of any combination of HAP. There have been no modifications or revisions to this source that were major modifications pursuant to 326 IAC 2-4.1 (New Source Toxics Control). Therefore, 326 IAC 2-4.1 (New Source Toxics Control) is not applicable to this source.

326 IAC 2-6 (Emission Reporting)

Rule revisions to 326 IAC 2-6 (Emission Reporting) became effective March 27, 2004. Due to the revision to the state rule, this source is no longer subject to 326 IAC 2-6-1(a) (Emission Reporting) because it is located in Marion County, it does not have an operating permit under 326 IAC 2-7 (Part 70 Permit Program), and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. Therefore, this source is not subject to 326 IAC 2-6 (Emission Reporting).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to the provisions of 326 IAC 6-4 for fugitive dust emissions. The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right of way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source, in existence prior to December 13, 1985, is not subject to 326 IAC 6-5 for fugitive particulate matter emissions because the fugitive particulate matter emissions from this source are less than twenty-five (25) tons per year (see TSD Appendix A). Therefore, Capitol City Metals, LLC is not subject to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations).

326 IAC 6.5 (Particulate Matter Limitations Except Lake County), formerly 326 IAC 6-1-2 (Particulate Rules)

On September 1, 2005, 326 IAC 6-1 (Particulate Rules) was repealed as stated in the Indiana Register (28 IR 3454). All non-Lake County PM limitations have been placed in to 326 IAC 6.5 (Particulate Matter Limitations Except Lake County). Marion County sources specifically listed in 326 IAC 6-1-12 (Particulate Rules: Marion County) are now listed in 326 IAC 6.5-6 (Marion County). Capitol City Metals is not specifically listed in 326 IAC 6.5-6 (Marion County).

This source is not subject to the requirements of 326 IAC 6.5 because the source has the potential to emit particulate matter emissions of less than one hundred (100) tons per year of particulate and has actual emissions less than ten (10) tons per year. Therefore, Capitol City Metals, LLC is not subject to 326 IAC 6.5-1-2(a).

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the

allowable particulate emission rate from the one (1) metal / fluff separation cascade, identified as 0001, and the one (1) shredder operation, identified as 0002, shall each not exceed 47.5 pounds per hour when operating at a process weight rate of 67.9 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

In order to comply with 326 IAC 6-3-2, the cyclone for metal / fluff separation and the water injection system for the shredder operation shall be in operation and control particulate emissions at all times that the metal / fluff separation process and the shredder processes are in operation. The September 22, 1999 stack test on the metal / fluff separation process cyclone and the February 8, 2005 on the shredder operation, while utilizing water injection, demonstrate that utilizing emission control equipment demonstrates compliance with 326 IAC 6-3-2 (see Appendix A of this Technical Support Document).

Local Rule Applicability – Individual Facilities

Chapter 511 "Air Pollution Control Ordinance", Sections 511-503 and 511-504 of the Revised Code of the Consolidated City of Indianapolis and Marion County, Indiana

Pursuant to Chapter 511 "Air Pollution Control Ordinance", Sections 511-503 and 511-504 of the Revised Code of the Consolidated City of Indianapolis and Marion County, Indiana, the Permittee shall comply with the provisions of the "Fugitive Particulate Matter Emission Control Plan" included as Attachment A to Registration 097-17949-00111. This provision is enforceable by the City of Indianapolis through its Department of Public Works, Office of Environmental Services. This condition is a "local only" condition. It is not enforceable under state or federal law by IDEM or U.S.EPA.

Conclusion

The operation of this metal shredding and metals recovery operation shall be subject to the conditions of Registration **097-17949-00111**.

Appendix A: Emission Calculations

Company Name: Capitol City Metals, LLC
Address: 311 South Shelby Street, Indianapolis, IN 46202
Registration No.: 097-17949-00111
Reviewer: M. Caraher
Date: July 6, 2006

Determine Potential to Emit After Integral Controls

Emissions are based upon OES witnessed compliance stack testing at the source performed since 1999. The PTE is calculated using the actual emission rate of PM measured during OES witnessed compliance stack testing after integral controls. All PM-10 emissions are assumed to be equal to PM emissions.

(a) Shredder operation, 0002, potential to emit after integral control:

PM/PM-10 emissions are derived based upon OES witnessed compliance stack testing results at the source for PM emissions performed February 8, 2005 utilizing 40 CFR Part 60, Appendix A, Methods 1 through 5 after water injection and assuming all PM-10 is PM.

PTE PM/PM-10: 0.16 lbs/hr controlled emission rate x 8760 hours/year x ton/2000 pounds =
0.71 tons/year

(b) Metal / fluff separator, 0001, potential to emit integral control:

PM/PM-10 emissions are derived based upon OES witnessed compliance stack testing results at the source for filterable and condensible PM emissions performed September 22, 1999 utilizing 40 CFR Part 60, Appendix A, Methods 1 through 5 and 202 after the integral control cyclone and assuming all PM-10 is PM. The pound per hour PM emission rate from the September 22, 1999 is the highest one run PM emission rate ever found during any stack testing for the Metal / fluff separator, 0001 emissions.

PTE PM/PM-10: 3.28 lb/hr controlled emission rate x 8760 hours/year x ton/2000 pounds =
14.37 tons PM/PM-10 per year

Source Wide Potential to PM/PM-10

	PM (tons per year)	PM-10 (tons per year)
Controlled Potential to Emit from 0002 =	0.71	0.71
Controlled Potential to Emit from 0001 =	14.37	14.37
Potential to Emit, plant roads (see pages 14-15) =	2.86	1.29
Total Source Wide Potential to Emit PM/PM-10 =	17.94	16.37

**Appendix A: Emissions Calculations
 HAPs Potential to Emit - Shredder**

Company Name: Capitol City Metals, LLC
Address: 311 South Shelby Street, Indianapolis, IN 46202
Registration No.: 097-17949-00111
Reviewer: M. Caraher
Date: July 6, 2006

Process rate:
 (tons/hour)

67.9

	HAP ?	Emission Factor (lbs/ton)	Emissions (lbs/hr)	Emissions (tons/yr)
Methylene Chloride	Yes	6.00E-05	4.07E-03	1.78E-02
1,1 Dichloroethene	No	1.33E-05	9.03E-04	3.96E-03
MEK	Yes	5.33E-06	3.62E-04	1.59E-03
1,1,1 Trichloroethane	Yes	2.00E-04	1.36E-02	5.95E-02
Benzene	Yes	4.00E-04	2.72E-02	1.19E-01
Tetrachloroethene	Yes	2.67E-06	1.81E-04	7.94E-04
Trichloroethene	Yes	6.67E-05	4.53E-03	1.98E-02
Toluene	Yes	3.33E-04	2.26E-02	9.90E-02
Ethylbenzene	Yes	6.67E-05	4.53E-03	1.98E-02
Styrene	Yes	1.33E-05	9.03E-04	3.96E-03
o-xylene	Yes	6.67E-05	4.53E-03	1.98E-02
m, p, - xylene	Yes	1.33E-04	9.03E-03	3.96E-02
Total VOC				4.05E-01
Total PCB	Yes	8.73E-05	5.93E-03	2.60E-02
Cadmium	Yes	1.16E-06	7.88E-05	3.45E-04
Chromium	Yes	1.28E-06	8.69E-05	3.81E-04
Lead	Yes	7.89E-06	5.36E-04	2.35E-03
Total Metals				3.07E-03
Highest Single HAP - Benzene				1.19E-01
Combined HAPs				4.30E-01

Emission factors from Table D-11.F "Title V Applicability Workbook" Institute of Scrap Recycling Industries, Inc. (Jan 1996), for stack test/results of a 150 ton per hour auto shredder after PM/PM-10 emission controls.

Emissions (lbs/hr) = Process rate (tons/hr) x Emission Factor (lbs/ton)

Emissions (tons/yr) = Process rate (tons/hr) x Emission Factor (lbs/ton) x 8760 hrs/yr x ton/2000lbs

Unlimited Potential to Emit PM10 from Vehicle Travel on Unpaved Roads

Company Name: Capitol City Metals, LLC
 Address: 311 South Shelby Street, Indianapolis, IN 46202
 Registration No.: 097-17949-00111
 Reviewer: M. Caraher
 Date: July 6, 2006

$$E = \frac{(k * s * S * W^{0.7} * w^{0.5})}{(263.309)} \frac{(365-p)}{(365)} = \text{lb particulate/vehicle mile traveled on unpaved roads (AP-42, 13.2.2)}$$

- k =

0.36

 particle size multiplier for PM10 (constant)
- s =

8.9

 silt content of road surface material (%), unspecified municipal roads
- p =

120

 number of days with at least 0.01 inch of precipitation (per year)

S = mean vehicle speed (mph)
 W = mean vehicle weight (tons)
 w = number of wheels

Vehicle Type	Mean Speed (mph)	Mean Weight (tons)	# of Wheels	Trip (mi) Distance	# Trips per Hour	Total Miles (One Day)	Day/Year	E (lb/VMT)	PM10 (ton/yr)
Triaxle truck	5	5	8	0.11	15	39.60	365	0.36	2.58
Total fugitive PM10 emissions =								2.58	
Fugitive PM10 emission control =								50.00%	
Total fugitive PM10 emissions =								1.29	

Example

$$E = \frac{(0.36 * 6 * 10 * 40^{0.7} * 18^{0.5})}{(263.309)} \frac{(365-120)}{(365)} = 3.09 \text{ lb PM10/VMT}$$

Unlimited Potential to Emit PM from Vehicle Travel on Unpaved Roads

Company Name: Capitol City Metals, LLC
 Address: 311 South Shelby Street, Indianapolis, IN 46202
 Registration No.: 097-17949-00111
 Reviewer: M. Caraher
 Date: July 6, 2006

$$E = \frac{(k * s * S * W^{0.7} * w^{0.5})}{(263.309)} \frac{(365-p)}{(365)} = \text{lb particulate/vehicle mile traveled on unpaved roads (AP-42, 13.2.2)}$$

- k =

0.8

 particle size multiplier for PM10 (constant)
- s =

8.9

 silt content of road surface material (%), unspecified municipal roads
- p =

120

 number of days with at least 0.01 inch of precipitation (per year)

S = mean vehicle speed (mph)
 W = mean vehicle weight (tons)
 w = number of wheels

Vehicle Type	Mean Speed (mph)	Mean Weight (tons)	# of Wheels	Trip (mi) Distance	# Trips per Hour	Total Miles (One Day)	Day/Year	E (lb/VMT)	PM (ton/yr)
Triaxle truck	5	5	8	0.11	15	39.60	365	0.79	5.72
Total fugitive PM emissions =								5.72	
Fugitive PM emission control =								50.00%	
Total fugitive PM emissions =								2.86	

Example

$$E = \frac{(0.8 * 6 * 10 * 40^{0.7} * 18^{0.5})}{(263.309)} \frac{(365-120)}{(365)} = 6.87 \text{ lb PM/VMT}$$

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

**Addendum to the Technical Support Document
for a Significant Permit Revision to a
Federally Enforceable State Operating Permit**

Source Name:	Capitol City Metals, LLC
Source Location:	311 South Shelby Street, Indianapolis, IN 46202
County:	Marion
SIC Code:	5093
Operation Permit No.:	F097-13884-00111
Operation Permit Issuance Date:	April 9, 2003
Permit Revision No.:	097-17949-00111
Permit Reviewer:	M. Caraher

On March 25, 2006, the Office of Air Quality (OAQ) and the City of Indianapolis Office of Environmental Services (OES) had a notice published in the Indianapolis Star newspaper stating Capitol City Metals, LLC had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit relating to the replacement of the existing shredder operation's cyclone and scrubber control with a water injection system as control. The notice also stated that OAQ and OES proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice also informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 25, 2006, Hatchett & Hauck, LLP, submitted comments on the draft Significant Permit Revision to a Federally Enforceable State Operating Permit on behalf of Capitol City Metals, LLC. The comments and responses, including changes to the permit, are listed below and on the following pages.

Based on the public notice period comments discussed in this Addendum to the Technical Support Document, a reevaluation of the potential to emit regulated air pollutants from the source was done. As a result, the proposed Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) that commenced a thirty (30) day public notice period on March 25, 2006 is changed to a Registration. In addition, the existing FESOP Renewal for Capitol City Metals, LLC, F097-13884-00111, is revoked with Revocation 097-23338-00111. Based on the revised potential to emit of regulated air pollutants from Capitol City Metals, LLC, a Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC.

The Technical Support Document (TSD) will remain as it originally appeared when published. Changes to the permit or technical support material that occur after the draft permit has published for public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Bolded language has been added and the language with ~~strikeout~~ has been deleted.

Comment 1:

Capitol City Metals supports the efforts of the Office of Environmental Services (OES) to establish fair and appropriate requirements that provide adequate assurance of compliance with fugitive dust rules. The

proposed permit includes a Fugitive Dust Control Plan with more than two dozen pages of explanation, requirements, charts and forms. Upon reflection, we have discussed with OES that appropriate terms in a permit that are readily identified and understandable, and with which compliance can be readily determined by OES, the public, and the source.

We, therefore, suggest that the Proposed Permit be revised to include the attached Fugitive Dust Control Plan. We believe that this simplified plan includes the appropriate terms to ensure compliance with fugitive dust regulations in a format that clearly states the requirements of the plan. For these same reasons, the simplified plan does not include the various exhibits that make up more than half of the pages in the Proposed Permit version of the fugitive dust control plan. We recognize that this is an important issue to OES, the public, and the source and would like to discuss the attached proposal for a simplified plan, including the possibility of including one or more of the exhibits or similar attachments if agreement can be reached that such exhibits would be useful.

Response to Comment 1:

The streamlined dust control plan submitted by Hatchett & Hauck, LLP on April 25, 2006 as part of the public notice period comments was additionally revised and resubmitted by Hatchett & Hauck, LLP to OES on July 7, 2006 and on July 14, 2006. The July 14, 2006 version of the dust control plan is included as Attachment A of the Registration 097-17949-00111.

This provision is enforceable by the City of Indianapolis through its Department of Public Works, Office of Environmental Services. This provision is a "local only" condition, established pursuant to Chapter 511 "Air Pollution Control Ordinance", Sections 511-503 and 511-504 of the Revised Code of the Consolidated City of Indianapolis and Marion County, Indiana. It is not enforceable under state or federal law by IDEM or U.S.EPA.

Comment 2:

We request that the Office of Environmental Services (OES) determine that the permitting level is a minor source operating permit, based on a potential to emit below the Title V thresholds. Appendix A to the proposed permit states that the potential to emit PM/PM-10 from the source before controls is above 100 tons per year. However, this determination does not consider the fact that the controls for the shredder (water injection) and fluff separator (cyclone) are integral to the process and, therefore, must be considered as part of the design of those units. Appendix A states that the combined potential to emit of the units after control are less than 15 tons per year. Therefore, the appropriate permitting level for the source is a minor source operating permit. In addition, the various emission limitations, monitoring, record keeping, reporting and other requirements that are included in the permit as a result of the potential to emit determination without considering the control efficiency should be removed from the permit.

In the Technical Support Document (TSD) to Permit No.: M039-20972-00622, Sturgis Iron & Metal, pp 2-3 of 8, the Indiana Department of Environmental Management (IDEM) had previously made a determination that control devices of these types are integral to the process.

Capitol City Metals, LLC requests that IDEM, OAQ and OES that the Smart water injection system on the metal shredder (0002) and the cyclone on the metal / fluff separation cascade (0001) be considered as an integral part of the metal shredding process and the ferrous/non-ferrous metal separation processes, respectively, because:

- (a) The materials input to the metal shredder consist primarily of crushed and uncrushed automobile bodies. These junk vehicle bodies typically contain flammable liquids and flammable solids. The high speed shearing action of the cutters on the Wendt metal shredder creates high instantaneous temperatures and sparks. The simultaneous presence of flammable materials and

ignition sources may result in fires and explosions within the machinery. In order to prevent this, a Smart water injection system is utilized in the metal shredder's hammermill, thereby, thoroughly wetting the material to be shredded. This wetting process both prevents explosions within the machinery and extinguishes any materials that ignite.

This wetting process is considered integral to the process because:

1. The water injection system serves a primary purpose other than pollution control. The purpose of the water injection system is to prevent fires and explosions within the machinery. Any fire or explosion of flammable materials within the machinery would damage it and, therefore, must be prevented. Also, any solid materials that caught fire would be transported via automatic conveyor to downline processes, with the possibility of damaging other equipment.
 2. The process cannot operate without the Smart water injection system. The Smart water injection system is designed by the manufacturer of the equipment to operate whenever the shredder operates. The constant operation of the water injection system while the shredder is in operation prevents explosions and fires which could result in damage to the shredding machine and unplanned shutdowns of the process. Damage to the machinery would result in repair and replacement costs. Process shutdowns would result in loss of revenue. Either of these results would have substantial negative financial impacts on the company.
- (b) The metal / fluff separation process sorts the shredded metal into ferrous, nonferrous and mixed (tramp) metals by use of an air powered centripetal process. Upon entering the metal separator, the stream of shredded metal is first sorted with magnets into ferrous and non-ferrous materials streams. The "ferrous" materials" stream (which, at this point in the process still contains about 4% non-ferrous materials by weight) then enters the z-box/cyclone where, by use of air currents, it is spun, sorted, separated and collected into ferrous and non-ferrous material streams.

The z-box/cyclone is considered integral to process because:

1. The z-box/cyclone serves a primary purpose other than pollution control. The z-box/cyclone is part of the materials sorting and collection mechanism. Its use enables high quality sorting of the input material into ferrous and non-ferrous materials in a one-pass-through operation. (Without use of the cyclone, a poor quality sorting of materials occurs, requiring reprocessing.)
2. The process cannot operate without the z-box/cyclone. The cyclone creates the air current needed in the z-box/cyclone to sort the shredded metal that passes through the z-box/cyclone into ferrous and nonferrous materials. Without the air current, the shredded metal is not sorted.

Response to Comment 2:

IDEM, OAQ and OES have evaluated the justifications and agree that the water injection system on the one (1) shredder operation, identified as 0002, and the cyclone on the one (1) metal / fluff separation cascade, identified as 0001, will be considered as an integral part of the metal shredding and metal / fluff separation processes, respectively. Therefore, the permitting level will be determined using the potential to emit after the water injection system and after the cyclone (see Addendum to the TSD Appendix A calculation spreadsheets that reflect the potential to emit for the source after integral controls). See the subsequent public notice comments and responses in this Addendum to the TSD for resolution of various emission limitations, monitoring, record keeping, reporting and other requirements that were included in the public noticed permit.

The revised potential to emit of the source is as follows:

Potential to Emit of the Source After Integral Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit (PTE) is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

The table below reflects the PTE after integral controls are considered (see Addendum to the TSD Appendix A for the derivation of the potential to emit regulated air pollutants from the source).

Pollutant	Potential to Emit (tons/year)
PM	216.6 17.94
PM-10	213.7 16.37
SO ₂	0.0
VOC	0.4
CO	0.0
NO _x	0.0

Note: For the purpose of determining Part 70 Operating Permit applicability, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential to Emit (tons/year)
Benzene	0.1
Total	0.4

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM-10 are each greater than five (5) tons per year but less than twenty five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A Registration will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of any combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7. A Registration will be issued.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

The revised source status is as follows:

Source Status

Existing Source PSD, Emission Offset, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	17.94
PM-10	16.37
SO ₂	0.0

Pollutant	Emissions (tons/yr)
VOC	0.4
CO	0.0
NO _x	0.0
Single HAP	0.1
Combination HAPs	0.4

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater and it is not in one of the 28 listed source categories.
- (c) These emissions were based on the application submitted by the source, April 25, 2006 public notice comments submitted to OAQ and OES by Hatchett and Hauck, and OES witnessed compliance stack testing results for the source.

Based on this evaluation for the source, the proposed Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) that commenced a thirty (30) day public notice period on March 25, 2006 is changed to a Registration.

Based on the revised potential to emit regulated air pollutants from Capitol City Metals, LLC, a Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC. In addition, the existing FESOP Renewal for Capitol City Metals, LLC, F097-13884-00111, is revoked with Revocation 097-23338-00111.

Comment 3:

Condition A.2 and Section D.1 Facility Description

In Condition A.2 and the Section D.1 facility description, we request that all instances of the term "maximum" in the description of the capacity of a facility be changed to "nominal." This change is consistent with the statement in the permit that these descriptions are not enforceable conditions.

Response to Comment 3:

The maximum capacities listed in the emission unit descriptions are used by IDEM OAQ and OES in order to completely describe the units and to assess the source's potential to emit. The process specific emissions limitations identified in the permit are often determined from this information. Physical changes or changes in the method of operation that changed the capacity may also increase the emission unit's potential to emit. Documenting the capacity will assist both the permittee and the IDEM in evaluating whether such a change requires a preconstruction permit or other approval. If these capacities are not accurate, the source is required to notify IDEM OAQ since this may change the applicability of the air permitting rules, and may result in an administrative amendment to the permit. Since these maximum capacities are subject to change it might be best for this permit to read "average capacity" or "nominal capacity" in order to clarify the flexibility of the manufacturing capabilities. Therefore, the description of these emission units for Registration 097-17949-00111 is revised as follows:

One (1) metal shredding operation with a **nominal capacity of** ~~maximum capacity of producing~~ 67.9 tons per hour ~~#~~ of metal, consisting of the following:

- (a) One (1) metal / fluff separation cascade, identified as 0001, with emissions controlled by a cyclone **deemed an integral part of the separation process**, and exhausting at stack #1, installed in June 1991.
- (b) One (1) shredder operation installed in June 1991, identified as 0002, with emissions controlled by a **Smart** water injection system installed in 2003 **and deemed an integral part of the shredding process**.

Comment 4:

Condition B.10 Compliance with Permit Conditions

We request that the requirement to comply with the permit be moved to the first page of the permit and removed from Section B. This change has been approved by IDEM for use in all permits and is a reasonable revision because the term in Section B otherwise exposes a source to double counting of deviations from permit terms.

Response to Comment 4:

The existing FESOP Renewal for Capitol City Metals, LLC, F097-13884-00111, is revoked with Revocation 097-23338-00111. Therefore, Condition B.10 no longer exists. Based on the revised potential to emit regulated air pollutants from Capitol City Metals, LLC, a Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC.

Comment 5:

Condition C.1 Overall Source Limit

Consistent with our Comment above, we request that Condition C.1 be deleted as unnecessary for a minor source of air emissions whose potential to emit is already below these levels.

Response to Comment 5:

The purpose of Condition C.1 (Overall Source Limit) was to limit this source's potential to emit, pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program), to less than major source levels for the purpose of Section 502(a) of the Clean Air Act. The existing FESOP Renewal for Capitol City Metals, F097-13884-00111, is revoked with Revocation 097-23338-00111. Therefore, Condition C.1 is no longer an applicable requirement and no longer exists. Based on the revised potential to emit regulated air pollutants from Capitol City Metals, a Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC.

Comment 6:

Condition D.1.1 Particulate Matter 10 Microns

Consistent with our Comment above, we request that Condition D.1.1 be deleted as unnecessary for a minor source of air emissions whose potential to emit is already below these levels.

Response to Comment 6:

The purpose of Condition D.1.1 (Particulate Matter 10 Microns (PM-10) FESOP Limit) was to limit the combined potential to emit PM-10 from individual emission units and the source to less than major source levels, pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program), such that 326 IAC 2-7 (Part 70 Permit Program) did not otherwise apply to the source. The existing FESOP Renewal for

Capitol City Metals, F097-13884-00111, is revoked with Revocation 097-23338-00111. Therefore, Condition D.1.1 is no longer an applicable requirement and no longer exists. Based on the revised potential to emit regulated air pollutants from Capitol City Metals, a Registration, 097-17949-00111, will be issued to Capitol City Metals, LLC.

Comment 7:

Condition D.1.2 Particulate Emissions

Consistent with our Comment above, we request that Condition D.1.2 be deleted because it is inapplicable to a source, such as this one, that has a potential to emit below 100 tpy and actual emissions below 10 tpy. In addition, even if the source was determined to exceed these thresholds, the requirement does not apply to fugitive sources, and therefore does not apply to the shredder.

Response to Comment 7:

IDEM, OAQ and OES disagree that the one (1) metal / fluff separation cascade, identified as 0001, with emissions controlled by a cyclone, and exhausting at stack #1, and the one (1) shredder operation, identified as 0002, are fugitive emission sources. Fugitive emissions are emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Capitol City Metals has historically performed particulate matter testing on both emission units pursuant to reference methods in 40 CFR Part 60, Appendix A. In addition, these reference methods were utilized during the February 8, 2005 stack test for the current configuration of utilizing water injection in the shredder operation, identified as 0002. The reference methods utilized in stack testing at the source cannot be utilized for fugitive emission sources. Therefore, the one (1) shredder operation, identified as 0002, and the one (1) metal / fluff separation cascade, identified as 0001, are not fugitive emission sources.

Based on the reevaluation of the potential to emit particulate from the source, Capitol City Metals is no longer subject to the provisions of 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County) because Capitol City Metals no longer has the potential to emit greater than one hundred (100) tons per year of particulate or has actual emissions greater than ten (10) tons per year. Therefore, 326 IAC 6.5-1-2(a) and Condition D.1.2 (Particulate Matter) are each no longer an applicable requirement.

However, based on the reevaluation of the potential to emit particulate from the source, Capitol City Metals is now subject to the provisions of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because it has the potential to emit particulate in a manufacturing process as defined in 326 IAC 6-3-1.5(2).

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) metal / fluff separation cascade, identified as 0001, and the one (1) shredder operation, identified as 0002, shall each not exceed 47.5 pounds per hour when operating at a process weight rate of 67.9 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

In order to comply with 326 IAC 6-3-2, the cyclone for metal / fluff separation and the water injection system for the shredder operation shall be in operation and control particulate emissions at all times that the metal / fluff separation process and the shredder processes are in operation. The September 22,

1999 stack test on the metal / fluff separation process cyclone and the February 8, 2005 on the shredder operation, while utilizing water injection, demonstrate that utilizing emission control equipment demonstrates compliance with 326 IAC 6-3-2 (see Appendix A of this Addendum to the Technical Support Document).

The proposed Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) that commenced a thirty (30) day public notice period on March 25, 2006 is changed to a Registration. In addition, the existing FESOP Renewal for Capitol City Metals, F097-13884-00111, is revoked with Revocation 097-23338-00111. Therefore, Condition D.1.2 no longer exists.

Based on the revised potential to emit regulated air pollutants from Capitol City Metals, a Registration, 097-17949-00111, will be issued to Capitol City Metals with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) as an applicable requirement for the one (1) metal / fluff separation cascade, identified as 0001, and the one (1) shredder operation, identified as 0002.

Comment 8:

Condition D.1.4 Particulate Control

Consistent with our Comment #6 to delete Condition D.1.1, this condition, which is cited for compliance with Condition D.1.1, should also be deleted. However, we have included a requirement as part of our proposed fugitive dust control plan to operate the water injection system.

Response to Comment 8:

Condition D.1.4 (Particulate Control) stated that control equipment should be in operation at all times in order to comply with the PM-10 emission limits established pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program). This condition should have also stated that the control equipment should be in operation at all times in order to additionally comply with the PM limit established pursuant to 326 IAC 6.5-1-2(a) (Particulate Matter Limitations Except Lake County) and Condition D.1.2 (Particulate Matter). The September 22, 1999 stack test on the metal / fluff separation process cyclone and the February 8, 2005 on the shredder operation, while utilizing water injection, demonstrate that utilizing the control demonstrates compliance with 326 IAC 6-3-2 (see Appendix A of this Addendum to the Technical Support Document). Capitol City Metals, LLC has not demonstrated that the emission units can comply with 326 IAC 6-3-2 without the use of the control equipment. See Comment/Response # 7 for additional information.

Comment 9:

Condition D.1.5(a) Operating Parameters

We recognize that certain conditions, including Condition D.1.5(a), have been included in order to ensure that the water system is operating adequately when the shredder is in operation. However, the requirement for continuous monitoring of water injection flow rate is unnecessary to reach this goal. The Proposed Permit would require continuous monitoring to ensure that a minimum flow rate of nine gallons per minute is maintained. This rate, which was the lowest level recorded during the recent stack test, is the lowest rate at which the system will operate. In addition, the integral water system is interlocked with the shredder itself. We suggest that the goal of providing records demonstrating compliance would be met with a record keeping requirement to check that the water system remains interlocked and actually operates when the shredder is in operation. This would ensure that the nine gallon rate is met. We would like to discuss this issue further with OES.

Similarly, Condition D.1.5(b) requires daily monitoring and recording of the fan amperage on the fan controlling air flow for the metal/fluff separation system. Because the z-box/cyclone control is integral to

the design of the system, the requirement for parametric monitoring is unnecessary. The separation function of the system operates on the principle of countercurrent airflow and would not result in acceptable product without adequate flow. Therefore, monitoring of fan amperage does not provide useful information on environmental compliance and the requirement should be deleted.

Consistent with this comment, Condition D.1.5(c) should be deleted as inapplicable after the other requested changes.

Response to Comment 9:

The water injection system flow rate of nine gallons per minute, which was the lowest level recorded during the recent stack test, is the lowest rate at which the system will operate. Therefore, IDEM, OAQ and OES agree that the public noticed permit requirement of continually monitoring and recording the water injection flow rate is not necessary. A once per day check that the water injection system is in operation when the shredder is in operation, and record keeping these checks, is adequate to ensure that the nine gallon water injection flow rate is met.

Since the separation function of the system is dependent on the z-box/cyclone, which is deemed an integral part of the separation process, IDEM, OAQ and OES agree that the public noticed permit requirement of monitoring fan amperage is not necessary. Once per day visible emission notations of stack #1 when in operation, and record keeping these checks, is adequate to ensure that the cyclone is in operation and controlling emissions from the metal / fluff separation process.

IDEM, OAQ and OES have approved the use of the specific control equipment selected by Capitol City Metals, LLC for the shredder process and the metal / fluff separation process which does not require calibration. Therefore, Condition D.1.5(c), regarding control device instrument calibration, is no longer an applicable requirement.

Comment 10:

Condition D.1.7 Visible Emissions Notations

Consistent with our Comment above, Condition D.1.7 could be deleted as inappropriate to a small source for which the controls are integral. However, if Condition D.1.7 is not deleted, we request that the term "at least" be added before "eighty percent" in Condition D.1.7(b) to recognize as normal emissions that occur more than eighty percent of the time.

Response to Comment 10:

See Comment/Response # 9.

Comment 11:

Condition D.1.8 Record Keeping Requirements

We request that Condition D.1.8 be revised to be consistent with the other requested changes.

Response to Comment 11:

Since draft fan amperage checks are not required for the z-box/cyclone for the metal / fluff separation process and continuous flow rate water injection monitoring and record keeping is not required, the Condition D.1.8(a) is no longer an applicable requirement. However, record keeping the once per day visible emissions notations and once per day water injection system operation checks must continue in order to demonstrate compliance with 326 IAC 5 and 326 IAC 6-3-2. Records of all required data, reports

and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application.

Comment 12:

Reports

We request that the several reports in the permit be revised to be consistent with the other requested changes.

Response to Comment 12:

The Emergency Occurrence Report Form and the Quarterly Deviation and Compliance Monitoring Report Form are no longer required because Capitol City Metals will no longer be permitted pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program). However, Capitol City Metals will be required to submit an annual notice to IDEM, OAQ and OES that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)).

Appendix A: Emission Calculations

Company Name: Capitol City Metals, LLC
Address: 311 South Shelby Street, Indianapolis, IN 46202
Registration No.: 097-17949-00111
Reviewer: M. Caraher
Date: July 6, 2006

Determine Potential to Emit After Integral Controls

Emissions are based upon OES witnessed compliance stack testing at the source performed since 1999. The PTE is calculated using the actual emission rate of PM measured during OES witnessed compliance stack testing after integral controls. All PM-10 emissions are assumed to be equal to PM emissions.

(a) Shredder operation, 0002, potential to emit after integral control:

PM/PM-10 emissions are derived based upon OES witnessed compliance stack testing results at the source for PM emissions performed February 8, 2005 utilizing 40 CFR Part 60, Appendix A, Methods 1 through 5 after water injection and assuming all PM-10 is PM.

PTE PM/PM-10: 0.16 lbs/hr controlled emission rate x 8760 hours/year x ton/2000 pounds =
 0.71 tons/year

(b) Metal / fluff separator, 0001, potential to emit integral control:

PM/PM-10 emissions are derived based upon OES witnessed compliance stack testing results at the source for filterable and condensable PM emissions performed September 22, 1999 utilizing 40 CFR Part 60, Appendix A, Methods 1 through 5 and 202 after the integral control cyclone and assuming all PM-10 is PM. The pound per hour PM emission rate from the September 22, 1999 is the highest one run PM emission rate ever found during any stack testing for the Metal / fluff separator, 0001 emissions.

PTE PM/PM-10: 3.28 lb/hr controlled emission rate x 8760 hours/year x ton/2000 pounds =
 14.37 tons PM/PM-10 per year

Source Wide Potential to PM/PM-10

	PM (tons per year)	PM-10 (tons per year)
Controlled Potential to Emit from 0002 =	0.71	0.71
Controlled Potential to Emit from 0001 =	14.37	14.37
Potential to Emit, plant roads (see pages 13-14) =	2.86	1.29
Total Source Wide Potential to Emit PM/PM-10 =	17.94	16.37

**Appendix A: Emissions Calculations
 HAPs Potential to Emit - Shredder**

Company Name: Capitol City Metals, LLC
Address: 311 South Shelby Street, Indianapolis, IN 46202
Registration No.: 097-17949-00111
Reviewer: M. Caraher
Date: July 6, 2006

Process rate: 67.9
 (tons/hour)

	HAP ?	Emission Factor (lbs/ton)	Emissions (lbs/hr)	Emissions (tons/yr)
Methylene Chloride	Yes	6.00E-05	4.07E-03	1.78E-02
1,1 Dichloroethene	No	1.33E-05	9.03E-04	3.96E-03
MEK	Yes	5.33E-06	3.62E-04	1.59E-03
1,1,1 Trichloroethane	Yes	2.00E-04	1.36E-02	5.95E-02
Benzene	Yes	4.00E-04	2.72E-02	1.19E-01
Tetrachloroethene	Yes	2.67E-06	1.81E-04	7.94E-04
Trichloroethene	Yes	6.67E-05	4.53E-03	1.98E-02
Toluene	Yes	3.33E-04	2.26E-02	9.90E-02
Ethylbenzene	Yes	6.67E-05	4.53E-03	1.98E-02
Styrene	Yes	1.33E-05	9.03E-04	3.96E-03
o-xylene	Yes	6.67E-05	4.53E-03	1.98E-02
m, p, - xylene	Yes	1.33E-04	9.03E-03	3.96E-02
Total VOC				4.05E-01
Total PCB	Yes	8.73E-05	5.93E-03	2.60E-02
Cadmium	Yes	1.16E-06	7.88E-05	3.45E-04
Chromium	Yes	1.28E-06	8.69E-05	3.81E-04
Lead	Yes	7.89E-06	5.36E-04	2.35E-03
Total Metals				3.07E-03
Highest Single HAP - Benzene				1.19E-01
Combined HAPs				4.30E-01

Emission factors from Table D-11.F "Title V Applicability Workbook" Institute of Scrap Recycling Industries, Inc. (Jan 1996), for stack test/results of a 150 ton per hour auto shredder after PM/PM-10 emission controls.

Emissions (lbs/hr) = Process rate (tons/hr) x Emission Factor (lbs/ton)

Emissions (tons/yr) = Process rate (tons/hr) x Emission Factor (lbs/ton) x 8760 hrs/yr x ton/2000lbs

Unlimited Potential to Emit PM10 from Vehicle Travel on Unpaved Roads

Company Name: Capitol City Metals, LLC
 Address: 311 South Shelby Street, Indianapolis, IN 46202
 Registration No.: 097-17949-00111
 Reviewer: M. Caraher
 Date: July 6, 2008

$$E = \frac{(k * s * S * W^{0.7} * w^{0.5})}{(263.309)} \frac{(365-p)}{(365)} = \text{lb particulate/vehicle mile traveled on unpaved roads (AP-42, 13.2.2)}$$

- k = 0.36 particle size multiplier for PM10 (constant)
- s = 8.9 silt content of road surface material (%), unspecified municipal roads
- p = 120 number of days with at least 0.01 inch of precipitation (per year)

S = mean vehicle speed (mph)
 W = mean vehicle weight (tons)
 w = number of wheels

Vehicle Type	Mean Speed (mph)	Mean Weight (tons)	# of Wheels	Trip (mi) Distance	# Trips per Hour	Total Miles (One Day)	Day/Year	E (lb/VMT)	PM10 (ton/yr)
Triaxle truck	5	5	8	0.11	15	39.60	365	0.36	2.58
Total fugitive PM10 emissions =									2.58
Fugitive PM10 emission control =									50.00%
Total fugitive PM10 emissions =									1.29

Example

$$E = \frac{(0.36 * 6 * 10 * 40^{0.7} * 18^{0.5})}{(263.309)} \frac{(365-120)}{(365)} = 3.09 \text{ lb PM10/VMT}$$

Unlimited Potential to Emit PM from Vehicle Travel on Unpaved Roads

Company Name: Capitol City Metals, LLC
 Address: 311 South Shelby Street, Indianapolis, IN 46202
 Registration No.: 097-17949-00111
 Reviewer: M. Caraher
 Date: July 6, 2006

$$E = \frac{(k * s * S * W^{0.7} * w^{0.5})}{(263.309)} \frac{(365-p)}{(365)} = \text{lb particulate/vehicle mile traveled on unpaved roads (AP-42, 13.2.2)}$$

- k = 0.8 particle size multiplier for PM10 (constant)
- s = 8.9 silt content of road surface material (%), unspecified municipal roads
- p = 120 number of days with at least 0.01 inch of precipitation (per year)

S = mean vehicle speed (mph)
 W = mean vehicle weight (tons)
 w = number of wheels

Vehicle Type	Mean Speed (mph)	Mean Weight (tons)	# of Wheels	Trip (mi) Distance	# Trips per Hour	Total Miles (One Day)	Day/Year	E (lb/MT)	PM (ton/yr)
Triaxle truck	5	5	8	0.11	15	39.60	365	0.79	5.72
Total fugitive PM emissions =									5.72
Fugitive PM emission control =									50.00%
Total fugitive PM emissions =									2.86

Example

$$E = \frac{(0.8 * 6 * 10 * 40^{0.7} * 18^{0.5})}{(263.309)} \frac{(365-120)}{(365)} = 6.87 \text{ lb PM/MT}$$