



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53 IGCN 1003
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: November 13, 2007

RE: Progress Rail Services Corporation / 019-25231-00129

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

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 from 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 Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Steve Lurie
Progress Rail Services Corporation - Charlestown Car Shop
10600 Hwy 62 #3
Charlestown, IN 47111

November 13, 2007

Re: Exempt Construction and Operation Status,
019-25231-00129

Dear Mr. Lurie:

The application from Progress Rail Services Corporation - Charlestown Car Shop, received on August 27, 2007, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary railcar maintenance, modification, and rebuilding facility, located at 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111, is classified as exempt from air pollution permit requirements:

- (a) one (1) train car refurbishing operation, constructed in 1998, designated as EU01, with a maximum throughput of four (4) train cars per day, consisting of the following:
 - (1) one (1) touchup painting operation, utilizing manual roller application, brush application, spray application, or aerosol can application to apply touchup paint to train cars, uncontrolled, and exhausting to the indoors;
 - (2) cleanup operations utilizing mineral spirits, uncontrolled, and exhausting to the indoors;
- (b) one (1) arc welding operation, constructed in 1998, for repairing railcar axles, wheels, and metal components with a maximum wire usage rate of 4.0 pounds per hour of flux cored welding wire (FCAW Wire Type E71T) and 3.0 pounds per hour of a shielded metal welding rod (SMAW Wire Type E7018), uncontrolled, and exhausting to the indoors;
- (c) one (1) oxypropane metal cutting station, constructed in 1998, with a maximum metal cutting rate of 2.0 feet per hour, uncontrolled, and exhausting to the indoors;
- (d) degreasing operations utilizing hand application of water-based fluids;
- (e) one (1) 250 gallon gasoline storage tank, constructed in 1998;
- (f) one (1) 250 gallon diesel storage tank, constructed in 1998;
- (g) Insignificant activities consisting of the following:
 - (1) paved roads and parking lots;
 - (2) operation of propane-fueled forklifts; and
 - (3) hand-held surface grinding;

The following conditions shall be applicable:

(a) 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 this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) 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) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(c) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for the fuel storage tanks:

- (1) the tank identification number;
- (2) the tank dimensions; and
- (3) the tank capacity.

Pursuant to 326 IAC 8-9-6(a), these records shall be maintained for the life of the tank.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Brian Williams, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5375 or at 1-800-451-6027 (ext 45375).

Sincerely,

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

bmw

cc: File - Clark County

U.S. EPA, Region V
Clark County Health Department
Air Compliance Section Inspector - Patrick Brady
Compliance Data Section
Technical Support and Modeling
Permits Administrative and Development
Billing, Licensing and Training Section – Dan Stamatkin

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Progress Rail Services Corporation - Charlestown Car Shop
Source Location: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
County: Clark
SIC Code: 4789 (Railroad car repair)
Application No.: 019-25231-00129
Reviewer: Brian M Williams

On August 27, 2007, the Office of Air Quality (OAQ) received an application from Progress Rail Services Corporation - Charlestown Car Shop relating to the operation of a stationary railcar maintenance, modification, and rebuilding facility.

Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following:

- (a) one (1) train car refurbishing operation, constructed in 1998, designated as EU01, with a maximum throughput of four (4) train cars per day, consisting of the following:
 - (1) one (1) touchup painting operation, utilizing manual roller application, brush application, spray application, or aerosol can application to apply touchup paint to train cars, uncontrolled, and exhausting to the indoors;
 - (2) cleanup operations utilizing mineral spirits, uncontrolled, and exhausting to the indoors;
- (b) one (1) arc welding operation, constructed in 1998, for repairing railcar axles, wheels, and metal components with a maximum wire usage rate of 4.0 pounds per hour of flux cored welding wire (FCAW Wire Type E71T) and 3.0 pounds per hour of a shielded metal welding rod (SMAW Wire Type E7018), uncontrolled, and exhausting to the indoors;
- (c) one (1) oxypropane metal cutting station, constructed in 1998, with a maximum metal cutting rate of 2.0 feet per hour, uncontrolled, and exhausting to the indoors;
- (d) degreasing operations utilizing hand application of water-based fluids;
- (e) one (1) 250 gallon gasoline storage tank, constructed in 1998;
- (f) one (1) 250 gallon diesel storage tank, constructed in 1998;
- (g) Insignificant activities consisting of the following:
 - (1) paved roads and parking lots;
 - (2) operation of propane-fueled forklifts; and
 - (3) hand-held surface grinding;

Existing Approvals

There are no existing approvals for this source

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the application be approved as an exemption. 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 August 27, 2007. Additional information was submitted by the source on October 1, 2007 and October 4, 2007.

Emission Calculations

- (a) See Appendix A of this TSD for detailed emissions calculations (Appendix A, pages 1 through 6).
- (b) The potential to emit (PTE) calculations for each of the fuel storage tanks and dispensing was provided by the source in the permit application. The source calculated the PTE using the Environmental Protection Agency's (EPA) TANKS Version 4.0 program. The calculations were verified by IDEM, OAQ using the EPA's TANKS Version 4.09b program. The PTE of VOC's was calculated at 0.15 tons per year and the PTE of total HAPs was negligible.

Potential to Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit (PTE) is defined as "the maximum capacity of a stationary source or emissions unit 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 department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	3.42
PM-10	2.94
SO ₂	0.000171
NO _x	0.16
VOC	2.21
CO	0.0274

HAPs	Potential To Emit (tons/year)
Chromium	5.78E-05
Manganese	1.24E-02
Nickel	4.70E-05
Cobalt	1.61E-05
Naphthalene	0.07
Xylene	0.06
Toluene	0.33
Ethylbenzene	4.63E-04
TOTAL HAPs	0.48

- (a) The PTE (as defined in 326 IAC 2-1.1-1(16)) of regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (b) The PTE (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO ₂	Attainment
NO _x	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Clark County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (b) Clark County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability – Entire Source section.
- (c) Clark County has been classified as attainment or unclassifiable for all the other regulated criteria pollutants. 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) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-4 revoking the one-hour ozone standard in Indiana.
- (e) On September 6, 2007 the Indiana Air Pollution Control Board finalized a temporary emergency rule to redesignate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
- (f) **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 and Emission Offset 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	3.42
PM-10	2.94
SO ₂	0.000171
NO _x	0.16
VOC	2.21
CO	0.0274
Worst Single HAP	0.33
Combination HAPs	0.48

- (a) This existing source is not a major PSD 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. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This existing source is not a Emission Offset major stationary source because no regulated nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the 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/year.

This status is based on the potential to emit calculations of the source (see Appendix A).

Federal Rule Applicability

- (a) The requirements of the New Source Performance Standard (NSPS), 40 CFR 60.110, Subpart Kb (Volatile Organic Liquid Storage Vessels) are not included in the permit, because this source does not have storage tanks with a capacity greater than or equal to 75 cubic meters (19,813 gallons).
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

State Rule Applicability - Entire Source

326 IAC 2-1.1-5 (Nonattainment NSR)

Clark County has been designated as nonattainment for PM 2.5 in 70 FR 943, dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit one hundred (100) tons per year of any nonattainment regulated pollutant. Progress Rail Services Corporation - Charlestown Car Shop has an unlimited potential to emit of PM10 below one hundred (100) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-1.1-5 does not apply for PM2.5.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The requirements of 326 IAC 2-2 (PSD) are not applicable to this source, since this source was constructed after the applicability date of August 7, 1977, it is not one of the 28 listed source categories, no major modifications were done to this source, and the potential to emit of all attainment regulated pollutants is less than 250 tons per year.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The requirements of 326 IAC 2-4.1 are not applicable to this source, since the potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Clark County, it is not required to 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.

326 IAC 5-1 (Opacity Limitations)

This source is located in Clark County (Charlestown Township). Therefore, 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 this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) 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 Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

State Rule Applicability - Individual Facilities

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

Since this source is located in Clark County, is not specifically listed in 326 IAC 6.5-2 and does not have the potential to emit one hundred (100) tons or more before add-on controls or have actual PM emissions that exceed ten (10) tons per year, the requirements of 326 IAC 6.5 are not applicable.

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since each of the emission units at this source does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

The requirements of 326 IAC 8-7 are not applicable, since this source does not have the potential to emit greater than one hundred (100) tons of VOCs per year and the source does not have coating facilities with the potential to emit greater than ten (10) tons of VOCs per year.

326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)

The requirements of 326 IAC 10-1 are not applicable to this source, because the potential to emit NOx is less than forty (40) tons per year.

State Rule Applicability - Touchup Paint Operations

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

Pursuant to 326 IAC 6-3-1(b)(15), the touchup paint operations are exempt from the provisions of 326 IAC 6-3 because they use less than five (5) gallons of coating per day. Additionally, pursuant to 326 IAC 6-3-1(b)(6) and (8), surface coating using roll and brush coatings are each exempt from the requirements of 326 IAC 6-3.

326 IAC 8-2-9 (Miscellaneous metal coating operations)

Pursuant to 326 IAC 8-2-1, the provisions of 326 IAC 8-2-9 apply to miscellaneous metal coating operations constructed after July 1, 1990, located in any county, and which have actual emissions of greater than fifteen (15) pounds per day before add-on controls. The potential to emit of the touchup painting operation is less than fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 are not applicable.

State Rule Applicability - Welding Operations

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

Pursuant to 326 IAC 6-3-1(b)(9), the arc welding operation is exempt from the requirements of 326 IAC 6-3 because it consumes less than 625 pounds of rod or wire per day.

State Rule Applicability - Hand Held Surface Grinding and Torch Cutting Equipment

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

Pursuant to 326 IAC 6-3-1(b)(10), torch cutting equipment is exempt from the requirements of 326 IAC 6-3, because less than 3,400 inches per hour of stock one (1) inch thickness or less is cut. Pursuant to 326 IAC 6-3-1(b)(13), hand-held surface grinding equipment is exempt from the requirements of 326 IAC 6-3, because it is defined as a trivial activity pursuant to 326 IAC 2-7-1(40)(F)(xii).

State Rule Applicability - Fuel Storage Tanks

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

The fuel storage tanks have a storage capacity less than thirty-nine thousand (39,000) gallons; therefore, they are not subject to the requirements of 326 IAC 8-4-3.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The fuel storage tanks are subject to the requirements of 326 IAC 8-9, because they were constructed after October 1, 1995 in Clark County, are not subject to 40 CFR 60, Subpart Kb, and will store a volatile organic liquid (VOL) as defined by 326 IAC 8-9-3(10). Pursuant to 326 IAC 8-9, the fuel storage tanks will be subject to the following reporting and recordkeeping requirements:

Pursuant to 326 IAC 8-9-1(b), each stationary vessel with a capacity of less than thirty-nine thousand (39,000) gallons is subject to the following reporting and record keeping provisions of 326 IAC 8-9-6(a) and (b) and is exempt from all other provisions of 326 IAC 8-9.

Pursuant to 326 IAC 8-9-6(b), the Permittee shall maintain a record and submit to IDEM, OAQ a report containing the following information for the fuel storage tanks:

- (1) the tank identification number;
- (2) the tank dimensions; and
- (3) the tank capacity.

Pursuant to 326 IAC 8-9-6(a), these records shall be maintained for the life of the tank.

Compliance Determination and Monitoring Requirements

Compliance determination and monitoring are not required for any of the emission units at this source.

Conclusion

The operation of this source shall be subject to the conditions of the attached exemption No. 019-25231-00129.

**Appendix A: Emissions Calculations
VOC and HAPs
From Touchup Painting and Cleanup Operations**

**Company Name: Progress Rail Services Corporation - Charlestown Car Shop
Address City IN Zip: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
Permit Number: 019-25231-00129
Reviewer: Brian Williams
Date: August 27, 2007**

Uncontrolled Potential to Emit VOCs and PM/PM10 (PTE)															
Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Material (gal/unit)	Maximum (units/day)	Pounds VOC per gallon of coating less water	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/yr)	Worst Case Transfer Efficiency %	Potential PM/PM10 (lbs/hr)	Potential PM/PM10 (tons/yr)
Yellow TTX (Brush or Roller)	9.8	34.40%	0.0%	34.4%	0.0%	65.60%	0.21	3.60	3.354	0.11	2.57	0.47	100.00%	0.00	0.00
Yellow TTX (Spray)	9.8	34.40%	0.0%	34.4%	0.0%	65.60%	1.00	0.40	3.354	0.06	1.34	0.24	70.00%	0.03	0.14
Mineral Spirits	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	0.132	4.00	6.589	0.14	3.48	0.63	100.00%	0.00	0.00
Decorative Enamel (Aerosol Can)	6.7	76.00%	0.0%	76.0%	0.0%	24.00%	0.190	4.00	5.071	0.16	3.85	0.70	50.00%	0.03	0.11
Total										0.47	11.25	2.05		0.06	0.25

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating less Water (lb/gal) * Gal of Material (gal/unit) * Maximum (units/day) / 24 (hrs/day)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating less Water (lb/gal) * Gal of Material (gal/unit) * Maximum (units/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating less Water (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential lbs per hour = (units/day) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency)/24 (hrs/day)
 Particulate Potential Tons per Year = Particulate Potential (lbs/hr) *(8760 hrs/yr) *(1 ton/2000 lbs)

Uncontrolled Potential to Emit HAPs (Unlimited)												
Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (units/day)	Weight % Naphthalene	Weight % Xylene*	Weight % Toluene*	Weight % Ethylbenzene	Naphthalene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Total HAPs (tons/yr)
*Yellow TTX (Brush or Roller)	9.8	0.21	3.60	3.30%	0.23%	1.60%	0.00%	0.05	0.00	0.02	0.00	0.07
*Yellow TTX (Spray)	9.8	1.00	0.40	3.30%	0.23%	1.60%	0.00%	0.02	0.00	0.01	0.00	0.04
Mineral Spirits	6.6	0.132	4.00	0.03%	1.00%	0.00%	0.00%	0.00	0.01	0.00	0.00	0.01
^{1,2} Decorative Enamel (Aerosol Can)	6.7	0.190	4.00	0.00%	5.25%	32.05%	0.05%	0.00	0.05	0.30	4.63E-04	0.35
Total								0.07	0.06	0.33	4.63E-04	0.46

METHODOLOGY

Potential HAPs Emissions (ton/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (units/day) * Weight % HAP * 365 (days/yr) * 1/2000 (ton/lbs)
 *Yellow TTX contains 23.2% mineral spirits (CAS # 8052-41-3). According to 40 CFR 63 stoddard solvent (CAS #8052-41-3) typically has an average organic HAP composition of 1% Xylene * % mineral spirits = % Xylene
¹Decorative Enamel contains 5% Xylene (CAS #1330-20-7). Additionally, the decorative enamel contains 5% mineral spirits (CAS # 8052-41-3). According to 40 CFR 63, stoddard solvent (CAS #8052-41-3) typically has an average organic HAP composition of 1% Xylene * % mineral spirits = % Xylene.
²Decorative enamel contains 5% aromatic hydrocarbons (CAS # 64742-95-6). According to 40 CFR 63, aromatic solvents typically have an average organic HAP composition of 4% Xylene, 1% Toluene, and 1% Ethylbenzene (%HAP * % aromatic hydrocarbon = % HAP).

**Appendix A: Emissions Calculations
PM and HAPs
From Arc Welding Operations**

**Company Name: Progress Rail Services Corporation - Charlestown Car Shop
Address City IN Zip: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
Permit Number: 019-25231-00129
Reviewer: Brian Williams
Date: August 27, 2007**

Process	Material Usage		Emission Factors (lb/10 ³ lb)					Potential to Emit (tons/yr)				
	(lb/hr)	(lbs/yr)	Chromium	Cobalt	Manganese	Nickel	PM/PM10	Chromium	Cobalt	Manganese	Nickel	PM/PM10
Arc Welding												
FCAW E71T Flux	4.0	35040	0.002	0.001	0.662	0.004	12.2	3.50E-05	1.75E-05	1.16E-02	7.01E-05	0.214
SMAW E7018 Metal Rod	3.0	26280	0.006	0.001	1.03	0.002	18.4	7.88E-05	1.31E-05	1.35E-02	2.63E-05	0.242
Total								1.14E-04	3.07E-05	2.51E-02	9.64E-05	0.46

Methodology

Potential to Emit (tons/yr) = Material Usage (lbs/yr) * Emission Factor (lb/10³ lb) * 1/2000 (ton/lbs)

Emission Factors are from AP-42, Chapter 12.19, Table 12.19-1 and 12.19-2 (01/1995)

**Appendix A: Emissions Calculations
PM and HAPs
From Oxypropane Cutting Operations**

**Company Name: Progress Rail Services Corporation - Charlestown Car Shop
Address City IN Zip: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
Permit Number: 019-25231-00129
Reviewer: Brian Williams
Date: August 27, 2007**

Process	Cutting Length (ft/hr)	Maximum (ft/yr)	PM/PM10 Emission Factor (lb/10⁶ ft)	Manganese Emission Factor (lb/10⁶ ft)	Chromium Emission Factor (lb/10⁶ ft)	Nickel Emission Factor (lb/10⁶ ft)	Cobalt Emission Factor (lb/10⁶ ft)	PM/PM10 (tons/yr)	Manganese (tons/yr)	Chromium (tons/yr)	Nickel (tons/yr)	Cobalt (tons/yr)
Propane Cutting	2.0	17520	978	2.9	0.2	0.5	0.2	0.017	5.08E-05	3.50E-06	8.76E-06	3.50E-06

Methodology

Potential to Emit (tons/yr) = Cutting Length (ft/hr) * 8760 (hrs/yr) * Emission Factor (lb/10⁶ ft) * 1/2000 (ton/lbs)

Emissions factors from Section 313 Reporting Issue Paper, Clarification and Guidance for the Metal Fabrication Industry. January 1990.

**Appendix A: Emissions Calculations
PM/PM10 Emissions
From Hand Held Metal Surface Grinding**

Company Name: Progress Rail Services Corporation - Charlestown Car Shop
Address City IN Zip: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
Permit Number: 019-25231-00129
Reviewer: Brian Williams
Date: August 27, 2007

Potential to Emit PM/PM10 (tons/yr)				
Process	Grinding Wheel Usage (unit/hr)	Grinding Wheel Usage (unit/yr)	Wheel Weight (lb/unit)*	Potential PM/PM10 Emissions (tons/yr)
4.5" grinding wheels	0.52	4555.2	0.33	0.75
7" grinding wheels	0.32	2803.2	1	1.40
Total				2.15

Methodology

Potential PM/PM10 Emissions (tons/yr) = Material Used (unit/yr) * Weight (lb/unit) * 1 * 1 * 1/2000 (ton/lbs)

*Assumes that 100% of each grinding wheel is consumed and 100% becomes airborne PM/PM10 emissions

Source provided methodology

Potential to Emit PM/PM10 (tons/yr)						
Process	Maximum Process Weight Rate (lb/unit)	Maximum Process Weight Rate (units/yr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	Potential PM Emissions (tons/yr)	Potential PM10 Emissions (tons/yr)
Hand Held Metal Surface Grinding	100	1261.44	17	1.7	0.54	0.054

Total PM	2.69
Total PM10	2.21

Methodology

PM/PM10 Emission Factors for Secondary Metal Production, Grey Iron Foundries, Grinding/Cleaning (SCC 30400340) (Source: EPA WebFIRE)

Potential PM/PM10 Emissions (tons/yr) = Weight (lb/unit) * Maximum (units/yr) * Emission Factor (lbs/ton) * 1/2000 (ton/lbs) * 1/2000 (ton/lbs)

Total Potential PM/PM10 Emissions = Sum of source provided methodology + Sum of WebFIRE methodology

**Appendix A: Emissions Calculations
Summary of Emissions**

Company Name: Progress Rail Services Corporation - Charlestown Car Shop
Address City IN Zip: 11452 Hwy 62, Gate 19 Bldg 717, Charlestown, Indiana 47111
Permit Number: 019-25231-00129
Reviewer: Brian Williams
Date: August 27, 2007

Potential to Emit (PTE) (tons/yr)							
Process	PM	PM10	SO₂	NOx	VOC	CO	HAPs
Touchup Painting	0.14	0.14	0.00	0.00	1.35	0.00	0.11
Aerosol Spot Marking/Touchup	0.11	0.11	0.00	0.00	0.70	0.00	0.35
Welding	0.46	0.46	0.00	0.00	0.00	0.00	0.03
Cutting	0.017	0.017	0.00	0.00	0.00	0.00	6.66E-05
Grinding	2.69	2.21	0.00	0.00	0.00	0.00	0.00
Fuel Storage/Dispensing	0.00	0.00	0.00	0.00	0.15	0.00	negligible
Propane Combustion	5.14E-03	5.14E-03	1.71E-04	0.16	4.28E-03	2.74E-02	0.00
Paved Roads	negligible	negligible	0.00	0.00	0.00	0.00	0.00
Total	3.42	2.94	0.000171	0.16	2.21	0.0274	0.48