



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: February 21, 2008
RE: Specialty Enterprises, Inc. / 177-25707-00113
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

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, Suite N 501E, 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 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
FN-REGIS.dot 1/2/08



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
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Indianapolis, Indiana 46204-2251
(317) 232-8603
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February 21, 2008

Gary Cummins
Specialty Enterprises, Inc.
2931 Highway 35 North
Richmond, IN 47374

Re: Registered Construction and Operation Status,
R177-25707-00113

Dear Gary Cummins:

The application from Specialty Enterprises, Inc., received on December 18, 2007, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following stationary burial casket manufacturing facility and human crematory located at 2931 Highway 35 North, Richmond, IN 47374 is classified as registered:

- (a) One (1) natural gas-fired human pathological incinerator, identified as EP, approved for construction in 2008, with a maximum throughput capacity of 150 pounds of remains per hour and a maximum heat input capacity of 2.25 million British thermal units per hour (MMBtu/hr), consisting of a primary chamber, using the main burner that is rated at 0.75 MMBtu/hr, and secondary chamber, using a high temperature afterburner, rated at 1.50 MMBtu/hr, to control emissions and exhausting to stack EP-1.
- (b) One (1) metal burial casket manufacturing facility, constructed in 2001, with a maximum capacity of 2.5 caskets per hour, fabricating semi-finished, metal burial caskets for resale, and consisting of:
 - (1) One (1) casket surface coating operation, identified as CB, applying water-based primer or primer lacquer with one (1) conventional spray applicator, using dry filters for particulate control and exhausting to stack CB-1;
 - (2) Welding operations, with a maximum metal consumption of 3.0 pounds per hour, uncontrolled and exhausting to the indoors;
 - (3) Miscellaneous grinding operations, using hand-held grinding equipment for smoothing and finishing welded seams on caskets, uncontrolled and exhausting to the indoors;
 - (4) Miscellaneous clean-up activities, uncontrolled, and exhausting to the indoors; as follows:
 - (A) Casket cleaning operations, using a maximum of 72 gallons of Fremont-72 cleaner per year and using a hand sprayer bottle (1 quart plastic, manual hand spray) and cloth rags to wipe down the entire area of the casket prior to surface coating; and
 - (B) Weekly surface coating equipment maintenance activities, using a maximum of 165 gallons of 5700 Economy Gun Wash solution per year, and using hand-wipe application to clean out the primer spray gun nozzle.

The following conditions shall be applicable:

1. 326 IAC 4-2-2 (Incinerators)
Pursuant to 326 IAC 4-2-2 (Incinerators), the crematory incinerator EP shall:
 - (a) Consist of primary and secondary chambers or the equivalent;
 - (b) Be equipped with a primary burner unless burning only wood products;
 - (c) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
 - (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and
 - (e) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
 - (f) If any of the above requirements (a) through (e) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
 - (g) The incinerator is exempt from requirement (e) if subject to a more stringent particulate matter emissions limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

2. 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:
 - (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.

3. 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating booth, identified as CB, shall be controlled by a dry particulate filter, waterwash, or equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (a) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (b) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

4. 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.
5. 326 IAC 11-8 (Emission Limitations for Commercial and Industrial Solid Waste Incineration Units)
Pursuant to 326 IAC 11-8-1(b)(1), the crematory incinerator is not subject to the requirements of 326 IAC 11-8, because it will burn 90 % or more by weight of pathological waste and provided that the following are met:
 - (1) The Permittee shall notify the department and U.S. EPA that the unit meets the criteria in this subdivision (326 IAC 11-8-1(1)(b)(1)).
 - (2) The Permittee shall keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, chemotherapeutic waste, or any combination of these wastes burned, and the weight of all other fuels and wastes burned in the unit.

This registration is the first approval issued to this source. The source may operate according to 326 IAC 2-5.1.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204**

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) 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 Hannah Desrosiers, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5374 or at 1-800-451-6027 (ext 45374).

Sincerely,

Original signed by
Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

IC/hld

cc: File - Wayne County
Wayne County Health Department
Air Compliance Section
Permit Tracking
Compliance Data Section
Permits Administrative and Development
Billing, Licensing and Training Section

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name:	Specialty Enterprises, Inc
Address:	2931 Highway 35 North, Richmond, IN 47374
Phone #:	765-935-4556
Registration #:	R177-25707-00113

Certification by the Authorized Individual

I hereby certify that Specialty Enterprises, Inc is still in operation and is in compliance with the requirements of Registration R177-25707-00113.

Name (typed):

Title:

Signature:

Phone Number:

Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Description and Location

Source Name: Specialty Enterprises, Inc.
Source Location: 2931 Highway 35 North, Richmond, IN 47374
County: Wayne
SIC Code: 3995, 7261
Registration No.: 177-25707-00113
Permit Reviewer: Hannah L. Desrosiers

On December 18, 2007, the Office of Air Quality (OAQ) has received an application from Specialty Enterprises, Inc. related to the construction and operation of new human crematory incinerator and the continued operation of an existing unpermitted burial casket manufacturing facility.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM10	Attainment/Unclassifiable
PM2.5	Attainment/Unclassifiable
SO ₂	Attainment
NO ₂	Attainment/Unclassifiable
8-hour Ozone	Attainment/Unclassifiable
CO	Attainment/Unclassifiable
Lead	Attainment/Unclassifiable

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) 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 ozone. Wayne County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**
Wayne County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) **Other Criteria Pollutants**
Wayne County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Specialty Enterprises, Inc. on December 18, 2007, relating to the construction and operation of a new human crematory incinerator and the continued operation of an existing, unpermitted burial casket manufacturing facility.

The following is a list of the new emission unit(s) and pollution control device(s):

- (a) One (1) propane-fired human pathological incinerator, identified as EP, approved for construction in 2008, with a maximum throughput capacity of 150 pounds of remains per hour and a maximum heat input capacity of 2.25 million British thermal units per hour (MMBtu/hr), consisting of a primary chamber, using the main burner that is rated at 0.75 MMBtu/hr, and secondary chamber, using a high temperature afterburner, rated at 1.50 MMBtu/hr, to control emissions and exhausting to stack EP-1.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission unit(s):

- (a) One (1) metal burial casket manufacturing facility, constructed in 2001, with a maximum capacity of 2.5 caskets per hour, fabricating semi-finished, metal burial caskets for resale, and consisting of:
 - (1) One (1) casket surface coating operation, identified as CB, applying water-based primer or lacquer primer with one (1) conventional spray applicator, using dry filters for particulate control and exhausting to stack CB-1;
 - (2) Welding operations, with a maximum metal consumption of 3.0 pounds per hour, uncontrolled and exhausting to the indoors;
 - (3) Miscellaneous grinding operations, using hand-held grinding equipment for smoothing and finishing welded seams on caskets, uncontrolled and exhausting to the indoors;
 - (4) Miscellaneous clean-up activities, uncontrolled and exhausting to the indoors, including:
 - (a) Casket cleaning operations, using a maximum of 72 gallons of Fremont-72 cleaner per year, applied using a hand sprayer bottle (1 quart plastic, manual hand spray) and cloth rags to wipe down the entire area of the casket prior to surface coating; and

- (b) Weekly surface coating equipment maintenance activities, using a maximum of 165 gallons of 5700 Economy Gun Wash solution per year, and using hand-wipe application to clean out the primer spray gun nozzle.

Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination –Registration

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/Emission Unit	Potential To Emit of the Entire Source (tons/year)							
	PM	PM10*	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Welding	0.07	0.07	0	0	0	0	0.002	0.002 Manganese
Grinding	11.17	1.12	0	0	0	0	0	0
Surface Coating	5.29	5.29	0	0	16.76	0	6.67	6.36 Toluene
Clean-up Activities	0.00	0.00	0	0	0.57	0	0.40	0.29 Toluene
Crematory	0.76	0.76	0.19	1.13	0.00	0.00	0	0
Total PTE of Entire Source**	17.29	7.24	0.19	1.13	17.33	0.00	7.08	6.65 Toluene
Registration Thresholds	≥ 5 tpy < 25 tpy	≥ 5 tpy < 25 tpy	≥ 5 tpy < 25 tpy	≥ 10 tpy < 25 tpy	≥ 10 tpy < 25 tpy	≥ 25 tpy < 100 tpy	< 10 tpy single HAP < 25 tpy combined HAPs	

* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.
 ** Note: Even prior to the addition of the crematory, the source is already classified as Registered.
 *** negl. = negligible

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10 and VOCs are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are below the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration will be issued.
- (b) The potential to emit (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, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Miscellaneous Metal Parts and Products Surface Coating, 40 CFR 63.2 Subpart Mmmm, are not included in this registration, because this source is not a major source of HAP emissions.
- (c) The requirements of 40 CFR 63, Subpart T (63.460 through 63.470), NESHAP for Halogenated Solvent Cleaning and 326 IAC 20-6, are not included in this registration because this operation does not use a cold solvent cleaning machine or any degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).
- (d) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart JJ, Wood Furniture Manufacturing (40 CFR Part 63.800 - 63.808) (326 IAC 20-14-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not manufacture wood furniture or wood furniture components.
- (e) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (f) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

Entire Source

- (a) 326 IAC 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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.
- (e) 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

Welding Operations

- (g) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1 (b)(9), the welding operations are exempt from this rule since they use less than six hundred twenty-five (625) pounds of rod or wire per day. Therefore, 326 IAC 6-3 does not apply to the welding operations.

Grinding Operations

- (h) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1 (b)(13), the grinding operations, performed using hand-held equipment, are exempt from this rule since they are considered a trivial activity as defined at 326 IAC 2-7-1(40)(F)(vi). Therefore, 326 IAC 6-3 does not apply to the welding operations.

Surface Coating Operations

- (i) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Application of surface coatings in coating booth CB using one (1) conventional spray applicator has potential particulate emissions that are greater than five hundred fifty-one thousandths (0.551) pound per hour and has the potential to use greater than five (5) gallons per day of surface coatings. Therefore, the requirements of 326 IAC 6-3-2 are applicable to coating booth CB. Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating booth, identified as CB, shall be controlled by a dry particulate filter, waterwash, or equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (j) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
Pursuant to 326 IAC 8-1-6 new facilities are subject only if they have potential emissions of 25

tons of VOC or more per year, or are not otherwise regulated by other provisions of Article 8. This source has potential emissions of less than 25 tons per year of VOC emissions from coating booth CB, therefore this source is not subject to 326 IAC 8-1-6. .

- (k) 326 IAC 8-2-9 (Miscellaneous Metal Coating)
Pursuant to 326 IAC 8-2-9(b)(10), requirements of 326 IAC 8-2-9 do not apply to the application of coatings to burial caskets (Standard Industrial Classification Code 3995), if the source is not located in or adjacent to a county designated as nonattainment for ozone or if the source is not located in or adjacent to Clark or Floyd County. Since this source is located in Wayne County and not located in or adjacent to a county designated as nonattainment for ozone or located in or adjacent to Clark or Floyd Counties, the requirements of 326 IAC 8-2-9 do not apply.
- (l) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3-1(b)(2), the clean-up activities performed at coating booth CB are not of a type described in subdivisions in 326 IAC 8-3-1(b)(1)(A) through 326 IAC 8-3-1(b)(1)(C), therefore, the requirements of 326 IAC 8-3 do not apply.

Incineration

- (k) 326 IAC 4-2-2 (Incinerators)
Pursuant to 326 IAC 4-2-2 (Incinerators), the crematory incinerator, identified as EP, shall:
- (1) Consist of primary and secondary chambers or the equivalent;
 - (2) Be equipped with a primary burner unless burning only wood products;
 - (3) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
 - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and
 - (5) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
 - (6) If any of the above requirements (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
 - (7) The incinerator is exempt from requirement (5) if subject to a more stringent particulate matter emissions limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
- (l) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(2), the crematory incinerator, identified as EP, is exempt from the requirements of 326 IAC 6-3.
- (m) 326 IAC 7-1 (Sulfur dioxide emission limitations: Applicability)
The crematory incinerator, identified as EP, is not subject to the requirements of 326 IAC 7-1, because it has potential and the actual SO₂ emissions that are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.
- (n) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)
The crematory incinerator, identified as EP, is not subject to the requirements of 326 IAC 8-1-6, since the potential to emit VOCs is less than twenty-five (25) tons per year.

- (o) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
This stationary source, constructed after the applicability date of March 21, 1972, is not subject to the requirements of 326 IAC 9-1-2(a)(3), since the crematory incinerator, identified as EP, burns pathological waste and does not burn refuse consisting of more than 50 percent municipal type waste (household, commercial/retail, and/or institutional waste).
- (p) 326 IAC 11-6 (Hospital/Medical/Infectious Waste Incinerators)
The crematory incinerator, identified as EP, is not subject to the requirements of 326 IAC 11-6, since it is considered a pathological waste combustor and does not meet the definition of a Hospital/Medical/Infectious Waste Incinerator as defined in 40 CFR 60.50c, subpart Ec.
- (q) 326 IAC 11-7 (Emission Limitations for Municipal Waste Combustors)
The crematory incinerator, identified as EP, is not subject to the requirements of 326 IAC 11-7, since it is considered a pathological waste combustor and not considered a municipal waste combustor.
- (r) 326 IAC 11-8 (Emission Limitations for Commercial and Industrial Solid Waste Incineration Units)
Pursuant to 326 IAC 11-8-1(b)(1), the crematory incinerator, identified as EP, is not subject to the requirements of 326 IAC 11-8, because it will burn 90 % or more by weight of pathological waste and provided that the following are met:
 - (1) The Permittee shall notify the department and U.S. EPA that the unit meets the criteria in this subdivision.
 - (2) The Permittee shall ~~keep~~ records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, chemotherapeutic waste, or any combination of these wastes burned, and the weight of all other fuels and wastes burned in the unit.

Conclusion and Recommendation

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 December 18, 2007.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 177-25707-00113. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at 317-234-5374 or toll free at 1-800-451-6027 (ext 4-5374).
- (b) A copy of the findings is available on the Internet at: www.in.gov/idem/permits/air/pending.html.
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem/permits/guide/.

Appendix A: Emissions Calculations Entire Source Emission Summary

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit No.: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

Uncontrolled Potential Emissions (tons/year)							
Emissions Generating Activity							
Category	Pollutant	Existing Emission Units				New Emission Unit	TOTAL
		Welding	Grinding	Surface Coating	Clean-up Activities	Crematory	
Criteria Pollutants	PM	0.07	11.17	5.29	0	0.76	17.29
	PM10	0.07	1.12	5.29	0	0.76	7.24
	SO2	0	0	0	0	0.19	0.19
	NOx	0	0	0	0	1.13	1.13
	VOC	0	0	16.76	0.57	0.00	17.33
	CO	0	0	0	0	0.00	0.00
Hazardous Air Pollutants	Benzene	0	0	0	0	0	0
	Dichlorobenzene	0	0	0	0	0	0
	Formaldehyde	0	0	0	0	0	0
	n-Hexane	0	0	0	0	0	0
	Methanol	0	0	0	0.11	0	0.11
	Toluene	0	0	6.36	0.29	0	6.65
	Xylene	0	0	0.32	0	0	0.32
	Chromium	0	0	0	0	0	0
	Cadmium	0	0	0	0	0	0
	Lead	0	0	0	0	0	0
	Manganese	1.50E-03	0	0	0	0	1.50E-03
	Nickel	0	0	0	0	0	0
	Totals		0.002	0	6.672	0.403	0
							6.65

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)							
Emissions Generating Activity							
Category	Pollutant	Existing Emission Units				New Emission Units	TOTAL
		Welding	Grinding	Surface Coating	Solvent/Cleaner	Crematory	
Criteria Pollutants	PM	0.07	11.17	0.26	0	0.76	12.27
	PM10	0.07	1.12	0.26	0	0.76	2.22
	SO2	0	0	0	0	0.19	0.19
	NOx	0	0	0	0	1.13	1.13
	VOC	0	0	16.76	0.57	0.00	17.33
	CO	0	0	0.00	0.00	0.00	0.00
Hazardous Air Pollutants	Benzene	0	0	0	0	0.00	0
	Dichlorobenzene	0	0	0	0	0.00	0
	Formaldehyde	0	0	0	0	0.00	0
	n-Hexane	0	0	0	0	0.00	0
	Methanol	0	0	0	0.11	0.00	0.11
	Toluene	0	0	6.36	0.29	0.00	6.65
	Xylene	0	0	0.32	0	0.00	0.32
	Chromium	0	0	0	0	0.00	0
	Cadmium	0	0	0	0	0.00	0
	Lead	0	0	0	0	0.00	0
	Manganese	1.50E-03	0	0	0	0.00	1.50E-03
	Nickel	0	0	0	0	0.00	0
	Totals		0.002	0	6.672	0.403	0
							6.65

Total emissions based on rated capacity at 8,760 hours/year.

Appendix A: Emissions Calculations Multiple Chamber Industrial Incinerators Incineration and Propane Combustion

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

Pollutant			PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor (lb/hr)			0.174	0.174	0.044	0.258	0.001	0.000
Emission Unit	Potential Throughput (lbs/hr)	Potential Throughput (tons/yr)	Potential to Emit (tons/yr)					
			PM*	PM10*	SO2	NOx	VOC	CO
Crematory Incinerator 1 (Primary and Secondary Chamber)	150	657.0	0.76	0.76	0.19	1.13	0.00	0.00
Totals			0.76	0.76	0.19	1.13	0.00	0.00

Methodology

Potential Throughput (tons/yr) = [Potential Throughput (lbs/hr)] * [8,760 hrs/yr] * [ton/2000 lbs]

Potential to Emit (tons/yr) = [Potential Throughput (tons/yr)] * [Emission Factor (lb/ton)] * [ton/2,000 lbs]

Emission factors are from AP-42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

*No emission factor for PM10 available (assume PM = PM10)

Abbreviations

PM = Particulate Matter

NOx = Nitrous Oxides

PM10 = Particulate Matter (<10 um)

VOC - Volatile Organic Compounds

SO2 = Sulfur Dioxide

CO = Carbon Monoxide

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

Category	Uncontrolled Potential Emissions (tons/year)					
	Emissions Generating Activity					
	Pollutant	Welding	Grinding	Surface Coating	Solvent/Cleaner	TOTAL
Criteria Pollutants	PM	0.07	11.17	5.29	0	16.53
	PM10	0.07	1.12	5.29	0	6.48
	SO2	0	0	0	0	0
	NOx	0	0	0	0	0
	VOC	0	0	16.76	0.57	17.33
	CO	0	0	0	0	0
Hazardous Air Pollutants	Benzene	0	0	0	0	0
	Dichlorobenzene	0	0	0	0	0
	Formaldehyde	0	0	0	0	0
	n-Hexane	0	0	0	0	0
	Methanol	0	0	0	0.11	0.11
	Toluene	0	0	6.36	0.29	6.65
	Xylene	0	0	0.32	0	0.32
	Cadmium	0	0	0	0	0
	Chromium	0	0	0	0	0
	Lead	0	0	0	0	0
	Manganese	0.002	0	0	0	0.002
	Nickel	0	0	0	0	0
	Totals	0.002	0	6.672	0.403	7.08
					6.65	

Total emissions based on rated capacity at 8,760 hours/year.

Category	Controlled Potential Emissions (tons/year)					
	Emissions Generating Activity					
	Pollutant	Welding	Grinding	Surface Coating	Solvent/Cleaner	TOTAL
Criteria Pollutants	PM	0.07	11.17	0.26	0	11.51
	PM10	0.07	1.12	0.26	0	1.45
	SO2	0	0	0	0	0
	NOx	0	0	0	0	0
	VOC	0	0	16.76	0.57	17.33
	CO	0	0	0	0	0
Hazardous Air Pollutants	Benzene	0	0	0	0	0
	Dichlorobenzene	0	0	0	0	0
	Formaldehyde	0	0	0	0	0
	n-Hexane	0	0	0	0	0
	Methanol	0	0	0	0.11	0.11
	Toluene	0	0	6.36	0.29	6.65
	Xylene	0	0	0.32	0	0.32
	Cadmium	0	0	0	0	0
	Chromium	0	0	0	0	0
	Lead	0	0	0	0	0
	Manganese	0.002	0	0	0	0.002
	Nickel	0	0	0	0	0
	Totals	0.002	0	6.672	0.403	7.08
					6.65	

Total emissions based on rated capacity at 8,760 hours/year.

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		
WELDING												
Submerged Arc				0.036	0.011			0.000	0.000	0.000	0.000	0.000
Metal Inert Gas (MIG)(carbon steel)	2	1.5		0.0055	0.0005			0.017	0.002	0.000	0.000	0.002
Stick (E7018 electrode)				0.0211	0.0009			0.000	0.000	0.000	0.000	0.000
Tungsten Inert Gas (TIG)(carbon steel)				0.0055	0.0005			0.000	0.000	0.000	0.000	0.000
Oxyacetylene(carbon steel)				0.0055	0.0005			0.000	0.000	0.000	0.000	0.000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene				0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane				0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma**				0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.02				0.00
Potential Emissions lbs/day								0.40				0.04
Potential Emissions tons/year								0.07	0.002	0	0	0.01

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations
Fugitive PM Emissions from Casket Manufacturing - Grinding Operations

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

Unit ID	Maximum Throughput (# Caskets/hr)	Average metal mass per casket (lbs)	PM Emission Factor* (lbs/ton)	PM 10 Emission Factor* (lbs/ton)	Maximum Annual Throughput (# Caskets/yr)	Maximum Annual Throughput - metal mass of casket (lbs/hr)	Maximum Annual Throughput - metal mass of casket (tons/yr)	PM emissions (lb/hr)	Annual PM emissions (tpy)	PM10 emissions (lb/hr)	Annual PM10 emissions (tpy)
Grinding Operations	2.5	120	17	1.7	21,900	300	1,314	2.55	11.17	0.26	1.12

Methodology

Conversion factor: 1ton = 2000lbs

Total emissions based on rated capacity at 8,760 hours/year.

*AP 42 Emission Factors for Grinding/Cleaning operations @ Grey Iron Foundries (lbs Particulate/ton of metal processed) obtained from EPA WebFIRE Database.

Maximum Annual Throughput (# Caskets/yr) = Maximum Throughput (# Caskets/hr) * 8760 (hrs/yr)

Maximum Annual Throughput - metal mass of casket (tons/yr) = (Maximum Annual Throughput (# Caskets/yr) * Average metal mass per casket (lbs)) / 2000 (lbs/ton)

Annual PM emissions (tpy) = Maximum Annual Throughput - metal mass of casket (tons/yr) * (PM Emission Factor* (lbs/ton) / 2000 (lb/ton))

Annual PM10 emissions (tpy) = Maximum Annual Throughput - metal mass of casket (tons/yr) * (PM10 Emission Factor* (lbs/ton) / 2000 (lb/ton))

**Appendix A: Emission Calculations
Emissions from Surface Coating Operations**

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

VOC and Particulate

Material	Unit ID	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Material Usage (gal/unit)	Maximum Throughput (units/hr)	Maximum Usage (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per Gallon of Coating	Unlimited PTE VOC (lbs/hr)	Unlimited PTE VOC (lbs/day)	Actual VOC (lb/day)	Unlimited PTE VOC (tons/yr)	Actual VOC (ton/yr)	Uncontrolled PTE PM/PM10 (lbs/hr)	Uncontrolled PTE PM/PM10 (tons/yr)	Transfer Efficiency %
Water-based Primer	CB	10.2	24.0%	14.2%	9.8%	0.25	2.5	15.0	6.4	1.00	0.62	14.95	4.98	2.73	0.65	1.21	5.29	75.0%
/S Primer Letdown	CB	7.8	78.9%	0.0%	78.9%	0.25	2.5	15.0	4.9	6.12	3.83	91.84	30.61	16.76	3.98	0.26	1.12	75.0%

Potential emissions based on rated capacity at 8,760 hours/year.

State Potential Emissions		Worst Case	Uncontrolled	3.83	91.84	30.61	16.76	3.98	1.21	5.29
		Controlled	0.06	0.26	Control Efficiency %	95.0%	0.06	0.26	0.06	0.26

Methodology

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Unlimited PTE VOC (lbs/hr) = Pounds VOC per Gallon of Coating (lbs/gal) * Maximum Usage (gal/unit) * Maximum Throughput (units/hr)

Unlimited PTE VOC (lbs/day) = Unlimited PTE VOC (lbs/hr) * 24 hrs/day

Actual VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) *8hrs

Unlimited PTE VOC (tons/yr) = Unlimited PTE VOC (lbs/hr) * 8760 hrs/yr * 1 ton/2000 lbs

Actual VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)

Uncontrolled PTE PM/PM10 (tons/yr) = Density (lbs/gal) * (1- Weight % Volatile) * Maximum Usage (gal/unit) * Maximum Throughput (units/hr) * (1-Transfer Efficiency %) * 8760 hrs/yr * 1 ton/2000 lbs

PTE PM/PM10 After Control (tons/yr) = Uncontrolled PTE PM/PM10 (tons/yr) * (1-Control Efficiency %)

HAP Emission Calculations

Material	Unit ID	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum Usage (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Toluene	Weight % Xylene
/S Primer Letdown	CB	7.76	0.25	2.50	29.92%	1.49%	6.3559	0.3165

Uncontrolled	6.356	0.317
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Total HAPs =	6.67
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METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations From Clean-up Activities

Company Name: Specialty Enterprises, Inc.
Address City IN Zip: 2931 Highway 35 North, Richmond, IN 47374
Permit Number: 177-25707-00113
Reviewer: Hannah L. Desrosiers
Date Received: 12/18/2007

VOC and Particulate

Material	Unit ID	Density (Lb/Gal)	Maximum Usage (annual replacement volume) (gal/yr)	Maximum Usage (daily replacement volume) (gal/day)	Maximum Usage (lb/hr)	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Actual VOC (lb/day)	Potential VOC (ton/yr)	Actual VOC (ton/yr)
Fremont 72	CB	9.08	72	0.20	0.075	0.00	0.07	1.79	0.6	0.33	0.08
#5700 Economy Gun Wash Thinner	CB	6.70	165	0.45	0.126	6.85	0.13	3.10	1.0	0.57	0.13
Potential emissions based on rated capacity at 8,760 hours/year.									State Potential Emissions		
									Uncontrolled	0.57	0.13

METHODOLOGY

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Maximum Application Rate (gal/unit) * Maximum Throughput (units/hr)

Potential VOC (lbs/day) = Potential VOC (lbs/hr) * (24 hr/day)

Actual VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8hrs

Potential VOC (tons/yr) = Potential VOC (lbs/day) * (8760 hrs/yr) * (1 ton/2000 lbs)

Actual VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (2920 hr/yr) * (1 ton/2000 lbs)

HAP Emissions

Material	Unit ID	Density (Lb/Gal)	Maximum Usage (daily replacement volume) (gal/day)	Maximum Usage (lb/hr)	Weight % Methanol	Methanol Emissions (ton/yr)	Weight % Toluene	Toluene Emissions (ton/yr)
Fremont 72	CB	9.08	0.197	0.075	0.00%	0.0000	0.00%	0.0000
#5700 Economy Gun Wash Thinner	CB	6.70	0.45	0.126	20.00%	0.1105	53.00%	0.2929
Totals						0.11		0.29

Total HAPs	0.40
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METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs