

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

The GSI Group, LLC
Attn: Scott Winter, Environmental Health & Safety Manager
1004 East Illinois Street
Assumption, IL 62510

<u>Application No.:</u> 07120032	<u>I.D. No.:</u> 021005AAF
<u>Applicant's Designation:</u>	<u>Date Received:</u> December 17, 2007
<u>Subject:</u> Manufacturing of Grain Bins and Other Agricultural Equipment	
<u>Date Issued:</u>	<u>Expiration Date:</u>
<u>Location:</u> 1004 East Illinois Street, Assumption, Christian County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of liquid paint booth with exhaust filter, two (2) powder paint booths with filters and a burn-off oven with afterburner pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit (FESOP) is issued:
 - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
 - ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP) and 25 tons/year of any combination of such HAPs so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart MMMM.
 - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
 - c. This permit supersedes all operating permit(s) for this location.
- 2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.

- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 3. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
- 4a. Pursuant to 35 Ill. Adm. Code 215.204(j), no owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material pursuant to 35 Ill. Adm. Code Part 215, delivered to the coating applicator:

	<u>kg/l</u>	<u>lb/gal</u>
Miscellaneous Metal Parts and Products Coating		
i. Clear Coating	0.52	(4.3)
ii. Air Dried Coating	0.42	(3.5)
iii. Extreme Performance Coating	0.42	(3.5)
iv. All Other Coatings	0.36	(3.0)

- b. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35

Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception:
If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K shall apply only to photochemically reactive material.

- 5a. This permit is issued based upon the source not being subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart M. This is a result of the federally enforceable production and operating limitations that restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- b. This permit is issued based on the coating operations at this source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paint Stripping And Miscellaneous Surface Coating Operations At Area Sources, 40 CFR 63 Subpart H, because the source is not involved in the spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.
- 6a. Pursuant to 35 Ill. Adm. Code 215.206(b), the limitations of 35 Ill. Adm. Code 215 Subpart F shall not apply to touch-up and repair coatings used by a coating source described in 35 Ill. Adm. Code 215.204(b), (d), (f), (g), (i), and (j); provided that the source-wide volume of such coatings does not exceed 0.95 l (1 quart) per eight-hour period or exceed 209 l/yr (55 gal/yr) for any rolling twelve-month period. Recordkeeping and reporting for touch-up and repair coatings shall be consistent with 35 Ill. Adm. Code 215.206(c).
- b. Pursuant to 35 Ill. Adm. Code 215.206(d), "touch-up and repair coatings" means, for purposes of 35 Ill. Adm. Code 215.206, any coating used to cover minor scratches and nicks that occur during manufacturing and assembly processes.
- c. Pursuant to 35 Ill. Adm. Code 215.209, no coating line subject to the limitations of 35 Ill. Adm. Code 215.204 is required to meet 35 Ill. Adm. Code 215.301 or 215.302 after the date by which the coating line is required to meet 35 Ill. Adm. Code 215.204.
- 7a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The drying oven associated with the coating booths and the burn-off oven at this source shall only be operated with natural gas as the fuel. The use of any other fuel in the drying oven or burn-off oven requires that the Permittee first obtain a construction permit from the

Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.

- c. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to the burn-off oven.
 - d. The afterburner combustion chamber of the burn-off oven shall be preheated to at least the manufacturer's recommended temperature (1400° F), but no less than the temperature at which compliance was demonstrated in the most recent compliance test. This temperature shall be maintained during operation of the burn-off oven.
 - e. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the paint booth filters and the burn-off oven afterburner such that the filters and afterburner are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- 9a. Emissions and operation from the paint booth shall not exceed the following limits:

Coating Usage		VOM Emissions		PM Emissions	
<u>Gal/Mo</u>	<u>Gal/Year</u>	<u>Ton/Mo</u>	<u>Ton/Year</u>	<u>lb/hour</u>	<u>Ton/year</u>
1,875	15,000	3.3	26.25	0.77	3.38

These limits are based on the maximum coating usage and compliance with 35 Ill. Adm. Code 212.321 and 215.204(j). The following equation shall be used to calculate VOM and HAP emissions for the coating operations:

$$Te = \sum_{i=1}^n A_i d_i B_i$$

Where:

Te = Total VOM or HAP emissions from all coating lines each month in units of lbs;

n = Number of different coatings, solvent, and additive as applied each month on all coating lines;

i = Subscript denoting an individual coating, solvent, and additive;

A_i = VOM or HAP content of each coating, solvent, and additive as applied on all coating lines in units of % by weight;

d_i = Density of each coating and solvent used (lb/gallon); and

B_i = Volume of each coating, solvent and additive as applied each month on all coating lines in units of gallons.

- b. The above limitations were established in Permit 07100058, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and Section 112(g) of the Clean Air Act. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 and Section 112(g) of the Clean Air Act.
 - c. This permit is issued on negligible emissions of volatile organic material and particulate matter from the burn-off oven. For this purpose, emissions from this emission unit shall not exceed nominal emission rates of 0.1 pounds/hour and 0.44 tons/year for each pollutant.
 - d. This permit is issued based on negligible emissions of particulate matter from the two powder paint booths. For this purpose emissions from each emission unit, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
 - e. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not exceed 0.8 tons/month and 8.0 tons/year of any single HAP and 1.99 tons/month and 19.9 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements to obtain a CAAPP permit from the Illinois EPA and the NESHAP for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart M. M. M. M.
 - f. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of

air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
 - b. Testing required by Conditions 11 and 12 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
11. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 12a. Pursuant to 35 Ill. Adm. Code 215.208(a), the VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, and coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results. For printing inks, the volatile organic material content shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.
- b. Pursuant to 35 Ill. Adm. Code 215.208(b), transfer efficiency shall be determined by a method, procedure or standard approved by the USEPA, under the applicable new source performance standard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Illinois EPA.
13. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit,

without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 14a. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 15a. Pursuant to 35 Ill. Adm. Code 215.206(c), the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of 35 Ill. Adm. Code 215.204(b), (d), (f), (g), (i), and (j) because of the provisions of 35 Ill. Adm. Code 215.206(b) shall:
 - i. Collect and record the name, identification number, and volume of each touch-up and repair coating, as applied on each coating line, per eight-hour period and per month;
 - ii. Perform calculations on a daily basis, and maintain at the source, records of such calculations of the combined volume of touch-up and repair coatings used source-wide for each eight-hour period;
 - iii. Perform calculations on a monthly basis, and maintain at the source, records of such calculations of the combined volume of

touch-up and repair coatings used source-wide for the month and the rolling twelve-month period;

- iv. Prepare and maintain at the source an annual summary of the information required to be compiled pursuant to 35 Ill. Adm. Code 215.206(b) on or before January 31 of the following year;
 - v. Maintain at the source for a minimum of three years all records required to be kept under this 35 Ill. Adm. Code 215.206(c) and make such records available to the Agency upon request; and
- 16a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions of this permit:
- i. Records addressing the use of good operating practices for the paint booth filters and the afterburner associated with the burn-off oven:
 - A. Records for periodic inspection of the afterburner associated with the paint booth filters and the burn-off oven with date, individual performing the inspection and nature of the inspection; and
 - B. Records for prompt repair of defects with identification and description of defect, effect of emissions, date identified, date repaired and nature of repair.
 - ii. Coating usage (gallons/month and gallons/year);
 - iii. Solvent usage (gallons/month and gallons/year);
 - iv. The name and identification number of each coating;
 - v. VOM and HAP contents of materials used (percent by weight);
 - vi. The densities of materials used (lbs/gallon); and
 - vii. Monthly and annual emissions of CO, NO_x, PM, SO₂, VOM and HAPs (individual and combined) from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
17. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance

shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

18. Pursuant to 35 Ill. Adm. Code 215.206(c)(6), the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of 35 Ill. Adm. code 215.204(b), (d), (f), (g), (i), and (j) because of the provisions of 35 Ill. Adm. Code 215.206(b) shall notify the Illinois EPA in writing if the use of touch-up and repair coatings at the source ever exceeds a volume of 0.95 l (1 quart) per eight-hour period or exceeds 209 l/yr (55 gal/yr) for any rolling twelve-month period within 30 days after any such exceedance. Such notification shall include a copy of any records of such exceedance.
- 19a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

It should be noted that natural gas-fired heaters less than 10 mmBtu/hour, the 97 Hp diesel-fueled generator. and diesel storage tanks are exempt from a permit pursuant to 35 Ill. Adm. Code 201.146(d), (i), and (n).

It should be noted that shot blast units with filters, and preparation washer/wash burner (2.5 mmBtu/hr) are exempt from a permit pursuant to 35 Ill. Adm. Code 201.146 (aa), and (oo).

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It should be noted that dry-off oven, cure oven and welding, soldering, brazing are exempt from a permit pursuant to 35 Ill. Adm. Code 201.146(fff) and (y).

It should be noted that laser/plasma cutters with dust collectors, and extruders are exempt from a permit pursuant to 35 Ill. Adm. Code 201.146(aa), and (cc).

It should be noted that propane storage tank, and cold cleaning degreasers using low vapor pressure solvents (15mmHg at 100 F) are exempt from a permit pursuant to 35 Ill. Adm. Code 201.146 (uu), and (v).

If you have any questions on this, please call David Hulskotter at 217/785-1705.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:DWH:

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the agricultural equipment manufacturer operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 100 tons/year for VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)			
	<u>PM</u>	<u>VOM</u>	<u>Single HAP</u>	<u>Combined HAPs</u>
Paint Booth	3.38	26.25		
Powder Paint Booths .88				
Burn-Off Oven	<u>0.44</u>	<u>0.44</u>		<u>----</u>
Totals	3.82	26.69	8.0	<u>19.9</u>

DWH: