

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - REVISED

PERMITTEE

Johnson Controls Battery Group, Inc.
Attention: Brad Fearnley
300 South Glengarry Dr.
Geneva, Illinois 60134

Application No: 73010036

I.D. No.: 089035AAF

Applicants Designation:

Date Received: April 4, 2001

Subject: Lead Acid Battery Manufacturing

Date Issued: June 29, 2001

Expiration Date: September 2, 2002

Location: 300 South Glengarry Dr., Geneva

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of Pasting Line D controlled by Seneca baghouse, Cast-On-Strap Line #6 controlled by RADCO #6 baghouse, Chemset Chamber #4 and Trim Dry Oven #2 two lead oxide systems, six grid casters, two strip casters, two storage tanks, three paste mixers, three plate drying ovens, one trim dry oven, two grid curing ovens, three pasters, three plate collectors, five stack and conveying lines, five heat seal machines, post burning systems, central vacuum systems, chemset chambers, decontamination chamber, baghouses, and oil mist filters 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 is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons per year of PM₁₀, 10 ton per year of individual HAP and 25 ton per year of combined HAP). 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.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
- 2a. The trim drying oven, strip caster line, the new pasting line (#3) and the new three-process operation facility (COS lines) are subject to a New Source Performance Standard (NSPS) for Lead-Acid Battery Manufacturing, 40 CFR 60, Subparts A and KK. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The lead emissions from the new grid casting operation shall not exceed 0.000176 gr/dscf and 0 percent opacity, pursuant to the New Source Performance Standard.

- c. The lead emissions from the pasting line, cast-on-strap line, chemset chamber, trim dry oven, lead strip caster #2, new paste mixing, three-process operation facility, and trim dry oven shall not exceed 0.00044 gr/dscf (1.00 mg/dscm) and 0 percent opacity, pursuant to the New Source Performance Standard.
 - d. At all times, the Permittee shall also, to the extent practicable, maintain and operate the equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- 3a. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Control Type</u>	Annual	PM ₁₀ Emissions	
		<u>Throughput Ton/Year</u>	<u>Lb/Hour</u>	<u>Ton/Year</u>
Grid Casting	None	15,068	0.011	0.05
Strip Casting	Oil Mist Filter	22,000	0.004	0.02
Oxide Manufacturing	Baghouse	22,776	0.002	0.01
Oxide Storage	Baghouse	22,776	0.002	0.01
Paste Mixing & Plate Drying	Baghouse	47,304	2.000	8.76
Pasting Lines	Baghouse	47,304	2.000	8.76
Trim Dry Oven	None	5,256	0.016	0.07
Chemset Chambers	None	141,985	0.206	<u>0.90</u>
			TOTAL:	18.58

These limits are based on the information provided in the permit application and emission factors from USEPA FIRE, stack testing of other identical Johnson Controls Battery Group facilities, and AP-42. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Control Type</u>	Annual	PM ₁₀ Emissions	
		<u>Production Batteries/Year</u>	<u>Lb/Hour</u>	<u>Ton/Year</u>
Cast On Strap Dept.	Baghouse	7,139,400	5.000	21.90
Heat Seal Operation	None	7,139,400	0.330	1.45
Automatic Post Builders	Oil Mist Filter	7,139,400	0.002	0.02
Manual Post Pour	None	3,066,000	0.033	0.15
Central Vac System	Baghouse	7,139,400	0.566	<u>2.48</u>
			TOTAL:	25.99

These limits are based on the information provided in the permit application and emission factors from USEPA FIRE, stack testing of other identical Johnson Controls Battery Group facilities, and AP-42. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. This permit is issued based on negligible emissions of particulate matter from the pasting line D, cast-on-strap line #6, chemset chamber #4 and trim dry oven #2. For this purpose, emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
5. Emission and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Lead Emission</u>	
	<u>(Lb/hr)</u>	<u>(Ton/Yr)</u>
Pasting Line D	0.139	0.61
Cast-On-Strap Line #6	0.046	0.20
Chemset Chamber #4	0.015	0.066
Trim Dry Oven #2	0.00023	0.001

These limits are based on the allowable lead concentration per 40 CFR 60.372 standard and actual exhaust flow rate. Compliance with annual limits shall be determined on a monthly basis from running total 12 months of data.

6. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Natural Gas Usage</u> <u>mmft³/Year</u>	<u>PM₁₀ Emissions</u>		<u>Nitrogen Oxide Emissions</u>	
		<u>Lb/mmft³</u>	<u>Ton/Year</u>	<u>Lb/mmft³</u>	<u>Ton/Year</u>
All Natural Gas Sources	206.6	7.6	0.79	100	10.33

These limits are based on the information provided in the permit application and AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. The Permittee shall maintain monthly records of the following items:
 - a. Raw material throughput for the grid casting, strip casting, oxide manufacturing oxide storage, paste mixing and plate drying, pasting lines, trim dry oven, and chemset chambers(tons/month and tons/year);

- b. production for the cast on strap department, heat seal operation, automatic post builders, manual post pour, and central vacuum system (batteries/month and batteries/year)
 - c. Particulate matter (tons/month and tons/year)
 - d. HAP emissions (tons/month and tons/year)
- 8a. The Permittee shall, in accordance with the manufacturer and/or vendor recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
- b. For each fabric filter, the Permittee shall, at a minimum, perform internal and external inspections, twice each year. The Permittee shall inspect for leaks, holes, seals, wear, and other problems, and promptly repair all problems found.
 - c. The Permittee shall maintain operating and maintenance logs for the pollution control equipment, including: maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.
9. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request. Any records retained in an electronic format (e.g., computer) 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 request for records during the course of a source inspection.
10. The Permittee shall fulfill applicable notification and recordkeeping requirements of the NSPS, 40 CFR 60.7.
11. If there is an exceedance of 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 Unit in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or violation and efforts to reduce emissions and future occurrences.
12. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not exceed 10 tons per year of any single HAP and 25 tons per year of any combination of such HAPs, or such lesser quantities USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from Illinois EPA. 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 Clean Air Act Permit Program (CAAPP) permit from the Illinois EPA.

13. This permit is issued based on negligible emissions of Volatile Organic Material from the trim dry oven and heat seal operations. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
14. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
15. The lead and/or particulate matter concentration in the effluent stream of any emission unit and control in this permit shall be measured by an approved independent testing service, within 45 days of a written request by the Illinois EPA for such a test. The Illinois EPA will require this test if, based on observations by Field Personnel, the emission unit or control are improperly installed, or are poorly maintained or operated so as to make compliance with the limits in this permit or the NSPS uncertain.
16. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, IL 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 - Regional Office
9511 West Harrison Street
Des Plaines, IL 60016

17. The Permittee shall submit the following additional information with the Annual Emission Report, due May 1st of each year: raw material throughput for the lead processing and the battery production. If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

It should be noted that this permit incorporates the equipment in operating permits 98070034 and 99010050.

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If you have any questions on this permit, please call John Blazis at 217/782-2113.

Sincerely,

Donald E. Sutton, P. E.
Manager, Permit Section
Division of Air Pollution Control

DES:JPB:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A

This attachment provides a summary of the maximum emission from the Lead-Acid Battery Manufacturing 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 well below the levels (i.e., 100 tons/year of PM₁₀, 10 ton per year individual HAP and 25 ton per year combined HAP) 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, all equipment will not be operated all the time, and control measures are more effective than required in this permit.

1. Total operation and emissions from the lead-acid battery manufacturing operation:

<u>Maximum Production Batteries/Year</u>	<u>Operating Hours (Hour/Year)</u>	<u>Pollutant</u>	<u>Emission Rate Lb/Hour</u>	<u>Emissions Ton/Year</u>
7,139,400 (all units combined)	8,760 (each unit)	PM ₁₀	10.58	46.33

2. Emission and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Lead Emission</u>	
	<u>(Lb/hr)</u>	<u>(Ton/Yr)</u>
Pasting Line D	0.139	0.61
Cast-On-Strap Line #6	0.046	0.20
Chemset Chamber #4	0.015	0.066
Trim Dry Oven #2	0.00023	0.001

3. Total operation and emissions from the natural-gas-fired emission units:

<u>Operating Hours (Hour/Year)</u>	<u>Annual Gas Usage (mmscf/Year)</u>	<u>Pollutant</u>	<u>Emission Rate Lb/mmscf</u>	<u>Emissions Ton/Year</u>
8,760 (each unit)	206.6 (all units)	PM ₁₀	7.6	0.79
		NO _x	100.0	10.33
		VOM	5.5	0.57
		CO	84.0	8.68
		SO ₂	0.6	0.06

4. This permit is issued based on negligible emissions of Volatile Organic Material from the trim dry oven and heat seal operations. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

5. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
6. As a consequence of the requirements of this permit, the emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source will be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs so that HAP emissions do not trigger the requirements to obtain a Clean Air Act Permit Program permit from the Illinois EPA.

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