

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- REVISED  
NSPS and NESHAP SOURCE

PERMITTEE

Johnson Controls Battery Group, Inc.  
Attn: Thomas J. Schoen  
300 South Glengarry Drive  
Geneva, Illinois 60134

<u>Application No:</u> 73010036	<u>I.D. No.:</u> 089035AAF
<u>Applicant's Designation:</u>	<u>Date Received:</u> October 30, 2012
<u>Subject:</u> Lead Acid Battery Manufacturing	
<u>Date Issued:</u> January 3, 2013	<u>Expiration Date:</u> April 20, 2016
<u>Location:</u> 300 South Glengarry Drive, Geneva, Kane County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of

Grid Casting:

Strip Caster Controlled by Oil Mist Filter (Primary - 50% Pleated, Secondary - 95% Pleated) (Stack Point 146);  
Strip Caster Lead Pot Controlled by Oil Mist Filter (Primary - 50% Pleated, Secondary - 95% Pleated) (Stack Point 146);

Pasting:

Pasting Line A controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point E1);  
Pasting Line B controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point E1);  
Four (4) Oxide Surge Hoppers (1 - 4) controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point E1);  
Pasting Line C controlled by Fabric Filter followed by HEPA (Stack Point 157);  
Pasting Line D controlled by Fabric Filter followed by HEPA (Stack Point 157);  
Paste Mixer & Oven A controlled by Fabric Filter followed by HEPA (Stack Point 154);  
Paste Mixer & Oven B controlled by Fabric Filter followed by HEPA (Stack Point 145);  
Paste Mixer & Oven C controlled by Fabric Filter followed by HEPA (Stack Point 145);  
Paste Mixer & Oven D controlled by Fabric Filter followed by HEPA (Stack Point 154);  
Trim Dry Oven C uncontrolled (Stack Point 156);  
Trim Dry Oven D uncontrolled (Stack Point 163);  
Chemset Curing Chamber 4 uncontrolled (Stack Point 178);  
Chemset Curing Chamber 5 uncontrolled Stack Point 178);  
Chemset Curing Chamber 6 uncontrolled Stack Point 178);  
Chemset Curing Chamber 7 uncontrolled Stack Point 178);  
Chemset Curing Chamber 8 uncontrolled Stack Point 178);

Chemset Curing Chamber 9 uncontrolled (Stack Point 178);  
Chemset Curing Chamber 10 uncontrolled (Stack Point 178);

Oxide Manufacturing:

Barton System 1 Melt Pot controlled by Oil Mist Filter (Primary - 50% Pleated, Secondary - 95% Pleated) (Stack Point 186);  
Barton System 2 Melt Pot controlled by Oil Mist Filter (Primary - 50% Pleated, Secondary - 95% Pleated) (Stack Point 186);  
Barton System 1 Process controlled by Fabric Filter followed by HEPA (Stack Point 136);  
Barton System 2 Process controlled by Fabric Filter followed by HEPA (Stack Point 136);  
Barton System 1 Vent controlled by Fabric Filter (Stack Point 137);  
  
Barton System 2 Vent controlled by Fabric Filter (Stack Point 137);  
Sovema Mill 1 Process BH controlled by Fabric Filter followed by HEPA (Stack Point 170);  
Sovema Mill 2 Process BH controlled by Fabric Filter followed by HEPA (Stack Point 171);  
Sovema Mill 3 Process BH controlled by Fabric Filter followed by HEPA (Stack Point 180);  
Sovema Mill 4 Process BH controlled by Fabric Filter followed by HEPA (Stack Point 181);  
  
Three (3) Cylinder Casters (1 - 3) controlled by Oil Mist Filter (Primary - 50% Pleated, Secondary - 95% Pleated) (Stack Point 174);  
Three (3) Sovema Storage Tanks (1 - 3) controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point 173);  
Two (2) Bulk Oxide Storage Tanks (A - B) controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point 151);  
Two (2) Bulk Oxide Storage Tanks (C - D) controlled by Fabric Filter followed by Secondary Fabric Filter (Stack Point 183);

Assembly Operations:

COS Line 1 Controlled by Fabric Filter Followed by HEPA (Stack Point W4);  
Cast on Strap Line (COS Line 1 Mark 7B) Controlled by Fabric Filter Followed by HEPA (Stack Point W4);  
COS Line 2 Controlled by Fabric Filter (Stack Point W1);  
Cast on Strap Line (COS Line 2 Mark 7B) Controlled by Fabric Filter Followed by HEPA (Stack Point W4);  
Stacker 8 Controlled by Fabric Filter (Stack Point W1);  
Plate Stacker (Stacker 1) Controlled by Fabric Filter Baghouse with a Secondary Filter (Stack Point 188);  
Plate Stacker (Stacker 2) Controlled by Fabric Filter Followed by HEPA and Secondary Filter (Stack Point 188);  
Plate Stacker (Stacker 9) Controlled by Fabric Filter Baghouse with a Secondary Filter (Stack Point W1);  
COS Line 3 Controlled by Fabric Filter Followed by HEPA (Stack Point 153);  
COS Line 4 Controlled by Fabric Filter Followed by HEPA (Stack Point 153);  
COS Line 6 Controlled by HEPA Followed by HEPA (Stack Point 147);  
COS Line 7 Controlled by Fabric Filter Followed by HEPA (Stack Point 175);  
COS Line 5 Controlled by Fabric Filter Followed by HEPA (Stack Point 144);

Stacker Line 5 Controlled by Fabric Filter Followed by HEPA (Stack Point 144);

APB Line 1 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 152);  
APB Line 2 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 152);  
APB Line 3 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 152);  
APB Line 4 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 152);  
APB Line 5 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 149);  
APB Line 6 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 149);  
APB Line 7 Controlled by Oil Mist Filter (Single Fabric) (Stack Point 149);  
Seven (7) Heat Seal Machines Uncontrolled (Stack Points 27, 28, 33, 109, 148, 160, and 177)

Central Vacuum System Controlled by Fabric Filter Followed by HEPA (Stack Point 50);

RADCO Vacuum System Controlled by Fabric Filter Followed by Secondary Fabric Filter (Stack Point 150); and

Manual APB Uncontrolled (Stack Point 80)

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/year for Particulate Matter less than 10 microns (PM<sub>10</sub>), and 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.
- b. Prior to initial 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 40 CFR 50.16(a), the national primary and secondary ambient air quality standards for lead (Pb) and its compounds are 0.15 micrograms per cubic meter, arithmetic mean concentration over a 3-month period, measured in the ambient air as Pb either by:
  - i. A reference method based on Appendix G of 40 CFR Part 50 and designated in accordance with 40 CFR Part 53;
  - ii. An equivalent method designated in accordance with 40 CFR Part 53.
- b. Pursuant to 40 CFR 50.16(b), the national primary and secondary ambient air quality standards for Pb are met when the maximum arithmetic 3-month mean concentration for a 3-year period, as determined in accordance with Appendix R of 40 CFR Part 50, is less than or equal to 0.15 micrograms per cubic meter.

- 3a. The source is subject to the New Source Performance Standards (NSPS) for Lead-Acid Battery Manufacturing Plants, 40 CFR 60, Subparts A and KK. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 60.372(a), On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of 40 CFR 60 Subpart KK shall cause to be discharged into the atmosphere:
- i. From any grid casting facility any gases that contain lead in excess of 0.40 milligram of lead per dry standard cubic meter of exhaust (0.000175 gr/dscf).
  - ii. From any paste mixing facility any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf).
  - iii. From any three-process operation facility any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf).
  - iv. From any lead oxide manufacturing facility any gases that contain in excess of 5.0 milligrams of lead per kilogram of lead feed (0.010 lb/ton).
  - v. From any other lead-emitting operation any gases that contain in excess of 1.00 milligram of lead per dry standard cubic meter of exhaust (0.000437 gr/dscf).
  - vi. From any affected facility other than a lead reclamation facility any gases with greater than 0 percent opacity (measured according to Method 9 and rounded to the nearest whole percentage).
- c. Pursuant to 40 CFR 60.372(b), when two or more facilities at the same plant (except the lead oxide manufacturing facility) are ducted to a common control device, an equivalent standard for the total exhaust from the commonly controlled facilities shall be determined as follows:

$$S_e = \sum_{a=1}^N S_a (Q_{sd_a} / Q_{sd_T})$$

Where:

$S_e$  = is the equivalent standard for the total exhaust stream.

$S_a$  = is the actual standard for each exhaust stream ducted to the control device.

N = is the total number of exhaust streams ducted to the control device.

$Q_{sda}$  = is the dry standard volumetric flow rate of the effluent gas stream from each facility ducted to the control device.

$Q_{sdt}$  = is the total dry standard volumetric flow rate of all effluent gas streams ducted to the control device.

- 4a. This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lead Acid Battery Manufacturing Area Sources, 40 CFR 63 Subparts A and PPPPPP. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 63.11423(a), shall meet all the standards for lead in 40 CFR 60.372.
- c. Pursuant to 40 CFR 63.11425 the provisions of 40 CFR Part 63, Subpart A that are applicable to 40 CFR 63 Subpart PPPPPP are specified in Table 1 to 40 CFR 63 Subpart PPPPPP (see Attachment B).
- 5a. 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 meter (1000 foot) 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 212.321(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).
6. 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.

7. Pursuant to 35 Ill. Adm. Code 218.301, 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 unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G (Use of Organic Material) shall only apply to photochemically reactive material.
8. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- 9a. The oil mist collectors, HEPA filters, and baghouses shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
  - b. The Permittee shall, in accordance with the manufacturer and/or vendor recommendations, perform periodic maintenance on the oil mist collectors, oil mist filters, baghouses, and HEPA filters such that the oil mist collectors, oil mist filters, baghouses, and HEPA filters are kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
  - c. 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.
  - d. The Lead Pots, Ovens, Chemset Curing Chambers, Melt Pots shall only be operated with natural gas as the fuel. The use of any other fuel in the Lead Pots, Ovens, Chemset Curing Chambers, Melt Pots 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.
- 10a. Emissions from and operation of the lead-acid battery manufacturing operation shall not exceed the following limits:

<u>Emission Unit</u>	<u>Lead Emissions</u>			<u>PM &amp; PM<sub>10</sub> Emissions</u>		
	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Grid Casting	0.0000243	0.000603	0.00264	0.00516	0.13	0.56
Pasting Lines A & B & Oxide Surge Hoppers	0.0000122	0.00202	0.00883	0.00571	0.95	4.13

<u>Emission Unit</u>	<u>Lead Emissions</u>			<u>PM &amp; PM<sub>10</sub> Emissions</u>		
	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Pasting Lines C & D	0.0000153	0.00316	0.0138	0.00571	1.18	5.16
Paste Mixer & Oven A & Paste Mixer & Oven D	0.0000194	0.00187	0.00818	0.00612	0.59	2.58
Paste Mixer & Oven B & Paste Mixer & Oven C	0.0000194	0.00187	0.00818	0.00612	0.59	2.58
Trim Dry Oven C	0.000243	0.000512	0.00224	0.00896	0.02	0.08
Trim Dry Oven D	0.000243	0.000512	0.00224	0.00896	0.02	0.08
Chemset Curing Chamber 4	0.0000219	0.000677	0.00297	0.00625	0.20	0.85
Chemset Curing Chambers 5, 6, 7, 8, 9, & 10	0.0000183	0.0069	0.0300	0.000776	1.11	4.87
Barton System 1 Melt Pot & Barton System 2 Melt Pot	0.0000401	0.00176	0.00769	0.00481	0.22	0.92
Barton System 1 Process BH	0.0000853	0.00338	0.0148	0.00531	0.22	0.92
Barton System 1 Vent BH & Barton System Vent BH	0.0000854	0.00200	0.00876	0.00450	0.11	0.46
Barton System 2 Process BH	0.0000853	0.00338	0.0148	0.00531	0.22	0.92
Sovema Mill 1 Process BH	0.0000292	0.000783	0.00343	0.00523	0.14	0.61
Sovema Mill 2 Process BH	0.0000292	0.000783	0.00343	0.00523	0.14	0.61
Sovema Mill 3 Process BH	0.0000292	0.000783	0.00343	0.00523	0.14	0.61
Sovema Mill 4 Process BH	0.0000292	0.000783	0.00343	0.00523	0.14	0.61
Cylinder Casters 1 - 3	0.0000403	0.00125	0.00547	0.00453	0.14	0.61
Soveman Storage Tanks 1 - 3	0.000146	0.00177	0.00775	0.00434	0.06	0.23
Bulk Oxide Storage Tks A-B	0.000335	0.00441	0.0193	0.00426	0.06	0.25
Bulk Oxide Storage Tks C-D	0.000167	0.00469	0.0205	0.00450	0.13	0.55
COS Line 1 and COS Line 2	0.0000244	0.00248	0.0109	0.00791	0.81	3.53
COS Line 3 and COS Line 4	0.0000122	0.00248	0.0109	0.00791	1.61	7.05

<u>Emission Unit</u>	<u>Lead Emissions</u>			<u>PM &amp; PM<sub>10</sub> Emissions</u>		
	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>	<u>(gr/dscf)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
COS Line 6	0.0000182	0.00184	0.00805	0.00797	0.81	3.53
COS Line 7	0.0000152	0.00161	0.00704	0.00791	0.84	3.67
COS Line 5	0.0000182	0.00184	0.00805	0.00797	0.81	3.53
Stacker 1 & Stacker 2	0.0000152	0.00186	0.00813	0.00791	0.966	4.23
Stacker 8 & Stacker 9	0.0000122	0.00200	0.00875	0.00787	1.29	5.64
APB Lines 1 - 4	0.0000329	0.0000251	0.00011	0.00843	0.01	0.03
APB Lines 5 - 7	0.0000329	0.0000251	0.00011	0.00843	0.01	0.03
Central Vacuum System	0.0000213	0.000276	0.00121	0.0291	0.38	1.65
RADCO Vacuum System	0.0000487	0.000315	0.00138	0.0291	0.19	0.83
Manual APB	0.0000547	0.0018	<u>0.00789</u>	0.00101	0.04	<u>0.15</u>
		Totals:	<u>0.25535</u>			<u>55.01</u>

These limits are based on the controlled lead, PM and PM<sub>10</sub> concentrations determined by previous stack testing, and the maximum air flow for all units directed through common stacks and air pollution control equipment.

- b. Operation and emissions of combustion equipment shall not exceed the following limits:
- i. Natural Gas Usage: 20.66 mmscf/month and 206.6 mmscf/year
  - ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>Factor</u>	<u>(lbs/mmscf)</u>	<u>(Tons/Mo)</u> <u>(Tons/Yr)</u>
Carbon Monoxide (CO)	84.0	0.87	8.68
Nitrogen Oxides (NO <sub>x</sub> )	100.0	1.04	10.33
Particulate Matter (PM)	7.6	0.08	0.79
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.01	0.06
Volatile Organic Material (VOM)	5.5	0.06	0.57

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- c. This permit is issued based on negligible emissions of Volatile Organic Material (VOM) 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.
- d. This permit is issued based on negligible emissions of Particulate Matter (PM) from each heat seal machine. For this purpose, emissions

shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

- e. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 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.
- 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).
- 11a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
  - i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
  - ii. Approves the use of an equivalent method;
  - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
  - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
  - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
- c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and

malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

- d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.
- e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
  - i. Sampling ports adequate for test methods applicable to such facility. This includes:
    - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test 1 methods and procedures; and
    - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - ii. Safe sampling platform(s).
  - iii. Safe access to sampling platform(s).
  - iv. Utilities for sampling and testing equipment.
- f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the

owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.

- 12a. Pursuant to 40 CFR 60.374(a), in conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR Part 60 or other methods and procedures as specified in 40 CFR 60.374, except as provided in 40 CFR 60.8(b).
- b. Pursuant to 40 CFR 60.374(b), the owner or operator shall determine compliance with the lead standards in 40 CFR 60.372, except 40 CFR 60.372(a)(4), as follows:
- i. Method 12 shall be used to determine the lead concentration and, if applicable, the volumetric flow rate ( $Q_{sda}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).
  - ii. When different operations in a three-process operation facility are ducted to separate control devices, the lead emission concentration (C) from the facility shall be determined using the equation in 40 CFR 60.373(b)(2).
  - iii. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. The opacity numbers shall be rounded off to the nearest whole percentage.
- c. Pursuant to 40 CFR 60.374(c), the owner or operator shall determine compliance with the lead standard in 40 CFR 60.372(a)(4) as follows:
- i. The emission rate (E) from lead oxide manufacturing facility shall be computed for each run using the equation in 40 CFR 60.374(c)(1).
  - ii. Method 12 shall be used to determine the lead concentration ( $C_{pb}$ ) and the volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).
  - iii. The average lead feed rate (P) shall be determined for each run using the equation in 40 CFR 60.374(c)(3).
- 13a. Pursuant to 40 CFR 63.11423(c), you must meet the testing requirements in 40 CFR 60.374.
- i. Existing sources are not required to conduct a performance test if a prior performance test was conducted using the same methods specified in 40 CFR 60.374 and either no process changes have been made since the test, or you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

- ii. Sources without a prior performance test, as described in 40 CFR 63.11423(b) of this section, must conduct a performance test using the methods specified in 40 CFR 60.374 by 180 days after the compliance date.
- 14a. 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 Condition 15 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
15. 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.
- 16a. Pursuant to 40 CFR 63.11423(b)(2), for any emissions point controlled by a fabric filter, you must meet the requirements of 40 CFR

63.11423(b)(2)(i) and either 40 CFR 63.11423(b)(2)(ii) or (iii). Fabric filters equipped with a high efficiency particulate air (HEPA) filter or other secondary filter are allowed to monitor less frequently, as specified in 40 CFR 63.11423(b)(2)(iv).

- i. You must perform semiannual inspections and maintenance to ensure proper performance of each fabric filter. This includes inspection of structural and filter integrity. You must record the results of these inspections.
- ii. You must install, maintain, and operate a pressure drop monitoring device to measure the differential pressure drop across the fabric filter during all times when the process is operating. The pressure drop shall be recorded at least once per day. If a pressure drop is observed outside of the normal operational ranges, you must record the incident and take immediate corrective actions. You must also record the corrective actions taken. You must submit a monitoring system performance report in accordance with 40 CFR 63.10(e)(3).
- iii. You must conduct a visible emissions observation at least once per day to verify that no visible emissions are occurring at the discharge point to the atmosphere from any emissions source subject to the requirements of 40 CFR 63.11423(a). If visible emissions are detected, you must record the incident and conduct an opacity measurement in accordance with 40 CFR 60.374(b)(3). You must record the results of each opacity measurement. If the measurement exceeds the applicable opacity standard in 40 CFR 60.372(a)(7) or (8), you must submit this information in an excess emissions report required under 40 CFR 63.10(e)(3).
- iv. Fabric filters equipped with a HEPA filter or other secondary filter are allowed to monitor less frequently, as specified in 40 CFR 63.11423(b)(2)(iv)(A) or (B).
  - A. If you are using a pressure drop monitoring device to measure the differential pressure drop across the fabric filter in accordance with 40 CFR 63.11423(b)(2)(ii), you must record the pressure drop at least once per week. If a pressure drop is observed outside of the normal operational ranges, you must record the incident and take immediate corrective actions. You must also record the corrective actions taken. You must submit a monitoring system performance report in accordance with 40 CFR 63.10(e)(3).
  - B. If you are conducting visible emissions observations in accordance with 40 CFR 63.11423(b)(2)(iii), you must conduct such observations at least once per week and record the results in accordance with 40 CFR 63.11423(b)(2)(iii). If visible emissions are detected, you must record the incident and conduct an opacity measurement in accordance with 40 CFR 60.374(b)(3). You must record the results of

each opacity measurement. If the measurement exceeds the applicable opacity standard in 40 CFR 60.372(a)(7) or (8), you must submit this information in an excess emissions report required under 40 CFR 63.10(e)(3).

- 17a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  - b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
18. 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.

19. 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.
- 20a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
  - i. Records addressing use of good operating practices for the oil mist collectors, oil mist filters, HEPA filters, and baghouses:
    - A. Records for periodic inspection of the oil mist collectors, oil mist filters, HEPA filters, and baghouses with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
  - ii. Operating hours for each unit listed in Condition 10(a), (hours/month and hours/year);
  - iii. Natural gas usage of the source (mmscf/month and mmscf/year); and
  - iv. Monthly and annual emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, VOM, PM, PM<sub>10</sub>, Lead and HAPs 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.
21. 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.
- 22a. If there is an exceedence 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 exceedence 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 exceedence 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, 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

It should be noted that this permit has been revised so as to include the operation of the equipment described in Construction Permits No. 10040007, 10110009, and 11030029.

If you have any questions on this permit, please call German Barria at 217/785-1705.

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

Date Signed: \_\_\_\_\_

ECB:GB:psj

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A- Emission Summary

This attachment provides a summary of the maximum emissions from the Lead-Acid Battery Manufacturing Plant 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 for PM<sub>10</sub>, 10 tons/year for any single HAP and 25 tons/year for any combination of such 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.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						<u>Single HAP</u>	<u>Total HAPs</u>
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM &amp; PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>Lead</u>		
Grid Casting			0.56			0.00264		
Pasting Lines A & B & Oxide Surge Hoppers			4.13			0.00883		
Pasting Lines C & D			5.16			0.0138		
Paste Mixer & Oven A & Paste Mixer & Oven D			2.58			0.00818		
Paste Mixer & Oven B & Paste Mixer & Oven C			2.58			0.00818		
Trim Dry Oven C			0.08			0.00224		
Trim Dry Oven D			0.08			0.00224		
Chemset Curing Chamber 4			0.85			0.00297		
Chemset Curing Chambers 5, 6, 7, 8, 9, & 10			4.87			0.030		
Barton System 1 Melt Pot & Barton System 2 Melt Pot			0.92			0.00769		
Barton System 1 Process BH			0.92			0.0148		
Barton System 1 Vent BH & Barton System Vent BH			0.46			0.00876		
Barton System 2 Process BH			0.92			0.0148		
Sovema Mill 1 Process BH			0.61			0.00343		
Sovema Mill 2 Process BH			0.61			0.00343		
Sovema Mill 3 Process BH			0.61			0.00343		
Sovema Mill 4 Process BH			0.61			0.00343		
Cylinder Casters 1 - 3			0.61			0.00547		
Soveman Storage Tanks 1 - 3			0.23			0.00775		
Bulk Oxide Storage Tks A-B			0.25			0.0193		
Bulk Oxide Storage Tks C-D			0.55			0.0205		
COS Line 1 & COS Line 2			3.53			0.0109		
Cos Line 3 & Cos Line 4			7.05			0.0109		
COS Line 6			3.53			0.00805		
COS Line 7			3.67			0.00704		
COS Line 5			3.53			0.00805		
Stacker 1 & Stacker 2			4.23			0.00813		
Stacker 8 & Stacker 9			5.64			0.00875		
Central Vacuum System			1.65			0.00121		

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)							Single <u>HAP</u>	Total <u>HAPs</u>
	<u>CO</u>	<u>NO<sub>x</sub></u>	PM & <u>PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>Lead</u>			
RADCO Vacuum System			0.83			0.00138			
Manual APB			0.15			0.00789			
Fuel Combustion	8.68	10.33	0.79	0.06	0.57				
Trim Dry Oven & Heat Seal Machines	-----	-----	3.08	-----	0.44	-----	-----	-----	
Totals	8.68	10.33	58.88	0.06	1.01	0.25535	9.0	22.5	

Attachment B

Table 1 to Subpart P of Part 63–National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources – Applicability of General Provisions to Subpart P

As required in 40 CFR 63.11425, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

Citation	Subject	Applies to Subpart P?	Explanation
40 CFR 63.1	Applicability	Yes	
40 CFR 63.2	Definitions	Yes	
40 CFR 63.3	Units and Abbreviations		
40 CFR 63.4	Prohibited Activities and Circumvention	Yes	
40 CFR 63.5	Preconstruction Review and Notification Requirements	No	
40 CFR 63.6(a)-(d), (e)(1), (f)-(j)	Compliance with Standards and Maintenance Requirements	Yes	
40 CFR 63.6(e)(3)		No	40 CFR 63 Subpart P does not require a startup, shutdown, and malfunction plan.
40 CFR 63.7	Performance Testing Requirements	Yes	
40 CFR 63.8	Monitoring Requirements	Yes	
40 CFR 63.9	Notification Requirements	Yes	
40 CFR 63.10(a)-(c), (d)(1)-(4), (e), (f)	Recordkeeping and Reporting Requirements	Yes	

Citation	Subject	Applies to Subpart P?????	Explanation
40 CFR 63.10(d)(5)		No	40 CFR 63 Subpart P????? does not require a startup, shutdown, and malfunction plan.
40 CFR 63.11	Control Device Requirements	No	40 CFR 63 Subpart P????? does not require flares.
40 CFR 63.12	State Authorities and Delegations	Yes	
40 CFR 63.13	Addresses	Yes	
640 CFR 3.14	Incorporations by Reference	Yes	
40 CFR 63.15	Availability of Information and Confidentiality	Yes	
40 CFR 63.16	Performance Track Provisions	Yes	
40 CFR 63.1(a)(5), (a)(7)-(9), (b)(2), (c)(3), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(c)(4), (c)(9)	Reserved	No	

[72 FR 38913, July 16, 2007, as amended at 73 FR 15929, Mar. 26, 2008]