

- c. This permit supersedes all operating permits for this location.
- 2a. The Electric Induction Furnaces ROSIE, BLANCH and PHYLIS are subject to a New Source Performance Standard (NSPS) for Secondary Brass and Bronze Production Plants, 40 CFR 60, Subparts A and M. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The opacity from the electric induction furnaces shall not exceed 10%.
- c. At all times, the Permittee shall also, to the extent practicable, maintain and operate these furnaces, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- 3a. The raw material throughput of all furnaces at the plant shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Process Rate</u>	
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
3 Rotary Furnaces (Total)	4,000	37,700
Reverberatory Furnace	950	9,500
3 Induction Furnaces (Total)	1,600	16,200
Tin shot kettle and 6 Cubicle (Total)	200	2,000
Roaster/Dryer	300	3,000

- b. Emissions of all furnaces at the plant shall not exceed the following limits:

<u>Furnaces</u>	<u>Operating Hours (Hr/Yr)</u>	<u>E M I S S I O N S</u>						
		<u>(T/Mo)</u>	<u>PM</u>			<u>SO₂</u>		<u>CO</u>
			<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	
3 Rotary	7,560	1.7	17.2	0.1	0.9	0.8	8	
Reverberatory	7,560	1.3	12.4					
6 Crucibles	3,840	0.02	0.2					
Tin Shot Kettle & Blanch Induction	3,840	0.05	0.5			0.4	3.7	
Phyllis/Rosie Induction	8,400	0.05	0.5			0.6	5.9	
Roasting/Drying	3,840	0.8	7.7					
Totals			38.5		0.9		17.6	

<u>Furnaces</u>	<u>Operating Hours (Hr/Yr)</u>	<u>E M I S S I O N S</u>			
		<u>(T/Mo)</u>	<u>NO_x</u>		<u>VOM</u>
			<u>(T/Yr)</u>	<u>(T/Mo)</u>	
3 Rotary	7,560	0.08	0.8	1.2	12.1
Tin Shot Kettle & Blanch Induction	3,840	0.06	0.56	0.3	2.9
Phyllis/Rosie Induction	8,400			0.4	3.8
Totals			1.36		18.8

- c. These limits are based on stack test data, Fire 5.0 and standard emission AP-42 factors.
- d. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
- 4. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Agency. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Agency.
- 5. This permit is issued based on negligible emissions of particulate matter from three mills and shotblaster. For this purpose, emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
- 6. Natural gas combustion shall not exceed the following limits:

	E M I S S I O N S			
	NO _x	CO	VOM	PM
<u>Total Maximum Firing Rate</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>	<u>(T/Yr)</u>
51.5 mmBtu/Hour	21	17.8	1.2	1.6

- 7. This permit is also issued based on emissions of carbon monoxide (CO) from any fuel combustion emission source not exceeding 200 ppm corrected to a 50% excess air pursuant to 35 Ill. Adm. Code 216.121.
- 8. This permit is issued based on emissions of volatile organic material from any emission unit not exceeding 8 lb/hour pursuant to 35 Ill. Adm. Code 218.301.
- 9a. This permit is also issued based on emissions of particulate matter not exceeding the limits determined by 35 Ill. Adm. Code 212.321.
- b. This permit is also issued based on visible emissions of particulate matter from any emission unit not exceeding 30% opacity, pursuant to 35 Ill. Adm. Code 212.123.
- 10. This permit is also issued based on emissions of sulfur dioxide (SO₂) from any emission unit not exceed 2,000 ppm pursuant to 35 Ill. Adm. Code 214.301.
- 11. 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 thereunder.

12. 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.
13. 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 nuisance.
14. The Permittee shall maintain records of excess emissions during malfunction and breakdowns. As a minimum, these records shall include:
 - a. Date and duration of malfunction or breakdown;
 - b. A full and detailed explanation of the cause for such emissions;
 - c. The contaminants emitted and an estimate of the quantity of emissions;
 - d. The measures used to reduce the quantity of emissions and the duration of the occurrence; and
 - e. the steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.
- 15a. The Permittee shall maintain monthly records of the following items:
 - i. Amount of the materials charged to each furnace (tons/month);
 - ii. Description of the materials charged to each furnace (VOM and HAP content, weight percent of precious metals, etc.)
- b. The Permittee shall maintain operating and maintenance logs for the pollution control system, including: operating data, with pressure drop and stack condition, maintenance activities, with date and description of inspection, repair actions, and equipment or filter bag replacements, etc.
16. 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 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.

17. 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 Section 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 exceedance or violation and efforts to reduce emissions and future occurrences.
18. 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, 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
9511 West Harrison
Des Plaines, Illinois 60016

19. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: amount of materials charged to each furnaces (tons/month and tons/year); description of materials charged to each furnace (VOM and HAP content, wt. % of precious metals, etc).

If you have any questions on this, please call Randy Solomon at 217/782-2113.

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

DES:RBS:psj

cc: IEPA, FOS Region 1

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Precious Metals Recovering Facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Agency used the annual operating scenario which results in maximum emissions from such a plant. This is processing of 68,400 tons of the materials per year. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of PM-10, 25 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled 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 material is handled, and control measures are more effective than required in this permit.

- Emissions of all furnaces at the plant shall not exceed the following limits:

<u>Furnaces</u>	<u>Operating Hours (Hr/Yr)</u>	<u>E M I S S I O N S</u>					
		<u>PM (T/Mo)</u>	<u>SO₂ (T/Yr)</u>	<u>SO₂ (T/Mo)</u>	<u>NO_x (T/Yr)</u>	<u>NO_x (T/Mo)</u>	<u>CO (T/Yr)</u>
3 Rotary	7,560	1.7	17.2	0.1	0.9	0.8	8
Reverberatory	7,560	1.3	12.4				
6 Crucibles	3,840	0.02	0.2				
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Roasting/Drying	3,840	0.8	7.7				
Totals			38.5		0.9		17.6

<u>Furnaces</u>	<u>Operating Hours (Hr/Yr)</u>	<u>E M I S S I O N S</u>			
		<u>NO_x (T/Mo)</u>	<u>NO_x (T/Yr)</u>	<u>VOM (T/Mo)</u>	<u>VOM (T/Yr)</u>
3 Rotary	7,560	0.08	0.8	1.2	12.1
Tin Shot Kettle & Blanch Induction	3,840	0.06	0.56	0.3	2.9
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Totals			1.36		18.8

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- Natural gas combustion shall not exceed the following limits:

<u>Total Maximum Firing Rate</u>	<u>E M I S S I O N S</u>			
	<u>NO_x (T/Yr)</u>	<u>CO (T/Yr)</u>	<u>VOM (T/Yr)</u>	<u>PM (T/Yr)</u>
51.5 mmBtu/Hour	21	17.8	1.2	1.6

4. 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 Agency.

DES:RBS:psj