

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

S. H. Bell Company
Attn: Samuel H. Bell
644 Alpha Drive
Pittsburgh, Pennsylvania 15238

Application No.: 83020023 I.D. No.: 031600BWX
Applicant's Designation: Date Received: May 22, 2001
Subject: Ferro Alloys Crushing and Transfer
Date Issued: Expiration Date:
Location: 10218 South Avenue "O", Chicago 60617

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of jaw crusher/screener, portable conveyor, bag filling operation controlled by dust collector, box filling operation controlled by dust collector, and fugitive emission sources including storage piles and unpaved roads as described in 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 PM-10), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program permit.
- 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) issued for this location.
2. The plant operations shall comply with the following requirements of 35 Ill. Adm. Code 212.316 - Emission Limitations for Emission Units in Certain Areas:
 - a. Emission Limitation for Crushing and Screening Operations. No person shall cause or allow fugitive particulate matter emissions generated by the crushing or screening operations to exceed an opacity of 10%.
 - b. Emission Limitations for Roadways or Parking Areas. No person shall cause or allow fugitive particulate matter emissions from any roadway or parking area to exceed an opacity of 5%.
 - c. Emission Limitations for Storage Piles. No person shall cause or allow fugitive particulate matter emissions from any storage pile to exceed an opacity of 10%, to be measured four feet from the pile surface.

3. The plant operations shall comply with the requirement of 35 Ill. Adm. Code 212.324(b): No person shall cause or allow emission into the atmosphere of PM-10 from any process emission unit to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period. Emissions and operation of the bag and box filling operations shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Air Flow</u>		<u>E M I S S I O N</u>				
	<u>Rate</u> <u>(scfm)</u>	<u>Production Rate</u> <u>(T/Hr) (T/Yr)</u>		<u>PM-10</u> <u>(Lb/Hr)(T/Yr)</u>		<u>PM</u> <u>(Lb/Hr)(T/Yr)</u>	
Bag filling	800	0.9	2,600	0.2	0.3	2.4	3.5
Box filling	4,300	3.5	10,100	1.1	1.6	5.0	7.2

4. Emissions and operation of the jaw crusher/screener shall not exceed the following limits:

<u>Operations</u>	<u>Throughput</u>		<u>Emission</u> <u>Factor</u> <u>(Lb/Ton)</u>		<u>E M I S S I O N</u>			
	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>PM-10</u>	<u>PM</u>	<u>PM-10</u> <u>(T/Mo)(T/Yr)</u>		<u>PM</u> <u>(T/Mo)(T/Yr)</u>	
<u>Crushing/Screening</u>								
Primary	7,000	83,000	0.05	0.5	0.1	1.2	1.1	12.5
Secondary	7,000	83,000	0.16	1.6	0.3	4.0	3.4	33.6
Tertiary	7,000	83,000	0.16	1.6	0.3	4.0	3.4	33.6
<u>Handling and</u>								
<u>Transfer</u>	21,000	249,000	0.06	0.12	0.4	4.5	0.8	9.0
					Total 13.7		88.7	

These limits define the potential emissions of PM-10 and are based on the maximum production rate, standard emission factors given by AP-42 (Table 11.24-2), application of foam dust suppressant spray (50% efficiency) and enclosure (80% efficiency). Compliance with annual limits shall be determined from a running total of 12 months of data.

5. Emissions and operation of the bag and box filling operations shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Air Flow</u>		<u>E M I S S I O N</u>				
	<u>Rate</u> <u>(scfm)</u>	<u>Production Rate</u> <u>(T/Hr) (T/Yr)</u>		<u>PM-10</u> <u>(Lb/Hr)(T/Yr)</u>		<u>PM</u> <u>(Lb/Hr)(T/Yr)</u>	
Bag filling	800	0.9	2,600	0.2	0.3	2.4	3.5
Box filling	4,300	3.5	10,100	1.1	1.6	5.0	7.2

These limits define the potential emissions of PM-10 and are based on the actual operational data and allowable PM-10 concentration of 0.03 gr/scf pursuant to 35 Ill. Adm. Code 212.324(b), allowable PM emission pursuant to 212.321, and 2,912 hours of operation per year. Compliance with annual limits shall be determined from a running total of 12 months of data.

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

Throughput		Emission Factor		E M I S S I O N			
(T/Mo)	(T/Yr)	(Lb/Ton)		PM-10		PM	
		PM-10	PM	(Lb/Mo)	(T/Yr)	(Lb/Mo)	(T/Yr)
3,875	46,500	0.06	0.12	23	0.1	47	0.3

These limits define the potential emissions of PM-10 and are based on the maximum production rate, 90% efficiency of the dust collector, and standard emission factors given by AP-42 (Table 11.24-2). Compliance with annual limits shall be determined from a running total of 12 months of data.

7. Emissions and operation of aggregate handling and storage piles shall not exceed the following limits:

Throughput		PM-10 Emission rate	PM-10 Emissions	
(Ton/Mo)	(Ton/Yr)	(Lb/Ton)	(Ton/Mo)	(Ton/Yr)
41,500	415,000	0.49	1.5	15.3

These limits define the potential emissions of PM-10 and are based on the maximum production rate, 70% efficiency of the enclosure and 50% efficiency of the water spray, 3,458 hours of operation per year and emission factors calculated based on equation given by AP-42. Compliance with annual limits shall be determined from a running total of 12 months of data.

8. The total fugitive emissions of PM-10 from wind erosion and unpaved roads shall not exceed 0.2 ton/year. These limits are based on the application of water spray and enclosure for storage piles and chemical stabilization for unpaved roads.
9. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including material handling or storage activity, beyond the property line of the emission source, pursuant to 212.301.
10. The Permittee shall comply with the provisions of Part 212, Subpart K, "Fugitive Particulate Matter" and "PM-10 Contingency Plan" submitted to the Illinois EPA on December 1995.
11. The Permittee shall maintain records of the following items:
- a. Total material throughput for each of the following operations (tons/month and tons/year):
 - Jaw Crusher
 - Box/Bag Filling
 - Conveyor Operations
 - Aggregate Handling and Storage Piles

- b. An operating and maintenance log for water spray and foam dust suppressant spray systems, including dates and times of usage and date and times of inspection performed.
12. 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 the Illinois EPA request for records during the course of a source inspection.
13. 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 record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
14. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year:
- Total material throughput for each of the following operations (tons/month and tons/year):
- Jaw Crusher
 - Box/Bag Filling
 - Conveyor Operations
 - Aggregate Handling and Storage Piles
15. 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

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

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

DES:VJB:

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
USEPA

Attachment A - Emission Summary

This attachment provides a summary of the maximum emission from the material handling facility 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 total material throughput limits the potential to emit of PM-10 below major source thresholds. The resulting maximum emissions are well below levels, e.g., 100 tons per year of PM-10 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 and operation of the jaw crusher/screener shall not exceed the following limits:

<u>Operations</u>	<u>Throughput</u>		<u>Emission Factor (Lb/Ton)</u>		<u>E M I S S I O N</u>			
	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>PM-10</u>	<u>PM</u>	<u>PM-10</u>		<u>PM</u>	
					<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
<u>Crushing/Screening</u>								
Primary	7,000	83,000	0.05	0.5	0.1	1.2	1.1	12.5
Secondary	7,000	83,000	0.16	1.6	0.3	4.0	3.4	33.6
Tertiary	7,000	83,000	0.16	1.6	0.3	4.0	3.4	33.6
<u>Handling and Transfer</u>								
	21,000	249,000	0.06	0.12	0.4	4.5	0.8	9.0
					Total 13.7		88.7	

- Emissions and operation of the bag and box filling operations shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Air Flow Rate</u>		<u>Production Rate</u>		<u>E M I S S I O N</u>			
	<u>(scfm)</u>		<u>(T/Hr)</u>	<u>(T/Yr)</u>	<u>PM-10</u>		<u>PM</u>	
					<u>(Lb/Hr)</u>	<u>(T/Yr)</u>	<u>(Lb/Hr)</u>	<u>(T/Yr)</u>
Bag filling	800		0.9	2,600	0.2	0.3	2.4	3.5
Box filling	4,300		3.5	10,100	1.1	1.6	5.0	7.2

- Emissions and operation of the conveyor shall not exceed the following limits:

<u>Throughput</u>		<u>Emission Factor (Lb/Ton)</u>		<u>E M I S S I O N</u>			
<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>PM-10</u>	<u>PM</u>	<u>PM-10</u>		<u>PM</u>	
				<u>(Lb/Mo)</u>	<u>(T/Yr)</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
3,875	46,500	0.06	0.12	23	0.1	47	0.3

- Emissions and operation of aggregate handling and storage piles shall not exceed the following limits:

<u>Throughput</u>		<u>PM-10 Emission rate</u>		<u>PM-10 Emissions</u>	
<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Lb/Ton)</u>		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
41,500	415,000	0.49		1.5	15.3

5. The total fugitive emissions of PM-10 from wind erosion and unpaved roads shall not exceed 0.2 ton/year.

VJB: