



AUG 02 2018

Ms. Lina Klein
Environmental Director FWI
Riverview Commerce Park
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: New Source Review Permit Amendment - Permit Number: 072014-006D
Project Number: 2018-06-021; Installation Number: 099-0175

Dear Ms. Klein:

On June 8, 2018, the Air Pollution Program received your request to amend Permit 072014-006C. According to your requests, Riverview Commerce Park (RCP) would like renumber some emission points as some emission points associated with dock 1 will now not be utilized. The following special conditions and Appendices in this amendment shall replace the special conditions and appendices in 072014-006C.

Table 1: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	N/A	1294.94	45.95*/39.52**
PM ₁₀	15.0	N/A	422.69	<15.0
PM _{2.5}	10.0	N/A	327.67	<10.0
SO _x	40.0	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A
GHG (CO ₂ e)	N/A	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A	N/A
HAPs	SMAL/25.0	N/A	N/D	<SMAL/25.0

N/A = Not Applicable; N/D = Not Determined

*PM conditioned to PM₁₀ limitation.

**PM conditioned to PM_{2.5} limitation.

Emission factors from pellet ore, lump ore, slag, and blended ore were derived using the drop point equation and the material moisture contents were taken from Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 13.2.4-1. The sources of all the emission factors for the different materials are listed in Appendix B. When considering a material for handling, RCP should review the SDS sheet of the material if HAPs are present, and then



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use the methodology outlined in Appendix B to ensure the HAPs of the item being transferred are below the SMAL/HAP limitation.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this amendment, please do not hesitate to contact Jordan Hull, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

A handwritten signature in black ink, appearing to read "K. Hale" with a small "for" written below it.

Kendall B. Hale
Permits Section Chief

KBH:jhj

Enclosures

c: St. Louis Regional Office
PAMS File: 2018-06-021

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Riverview Commerce Park
Jefferson County, S20, T41N, R6E

1. **Superseding Conditions**
 - A. The conditions of this permit supersede all special conditions found in the previously issued construction permit 072014-006C issued by the Air Pollution Control Program.
 - B. The conditions of this permit supersede the following special conditions found in the previously issued construction permit 072014-006B issued by the Air Pollution Control Program.
 - a. Special Condition 3 - Annual Emissions Limit
 - b. Special Condition 4 - Ambient Air Impact Limitation
2. **Annual Emission Limit**
 - A. Riverview Commerce Park shall emit less than 10.0 tons of PM_{2.5} in any consecutive 12-month period from the entire installation's emission points as shown in Table 2.
 - B. Riverview Commerce Park shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the entire installation's emission points as shown in Table 2.
 - C. Riverview Commerce Park shall emit less than SMAL given in Appendix A for each individual HAP and less than 25.0 tons of combined HAPs in any consecutive 12-month period from the entire installation's emission points as shown in Table 2.

Table 2: Installation-wide Emission Points

ID	Description
Dock 1	
EP1	Truck unloading to Masaba C1 and auxiliary conveyors
EP2	Masaba C1 conveyor drop to C2 conveyor
EP3	C2 conveyor drop to 20-ton surge hopper
EP4	20-ton surge hopper drop to C3 conveyor

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

EP5	C3 conveyor drop to C4 conveyor
EP6	C4 conveyor drop to C5 conveyor
EP7	C5 conveyor drop to barge
EP8	Auxiliary conveyor drop to Masaba C1 conveyor
EP9	Dock 1 haul road
Rail 1- Wilson Conveyor	
EP11	Truck unloading to Wilson conveyor
EP12	Wilson conveyor drop to barge
EP13	Rail haul road
EP14	Stockpile
Dock 2	
EP15	Truck unloading to second Masaba conveyor
EP16	Second Masaba conveyor drop to barge
EP17	Dock 2 haul road

- D. Riverview Commerce Park shall develop and use forms for PM_{2.5}, PM₁₀ and HAPs to demonstrate compliance with Special Condition 2.A., 2.B., and 2.C. The forms shall contain a minimum of the following information.
- 1.) Installation Name
 - 2.) Installation ID
 - 3.) Permit Number
 - 4.) The current month
 - 5.) The current 12-month date range
 - 6.) Emission points listed in Table 1 that emit PM_{2.5} and PM₁₀
 - 7.) Each processes' current monthly throughput
 - 8.) The PM_{2.5}, PM₁₀, and HAP emission factors for each process
 - 9.) Monthly PM_{2.5}, PM₁₀, and HAPs emissions for each process.
 - 10.) If a range of HAPs content is given in the safety data sheets (SDS), the highest value shall be used.
 - 11.) 12-month rolling total for PM_{2.5}, PM₁₀, and HAPs
 - 12.) Indication of Compliance with Special Condition 2.A., 2.B., and 2.C.
- E. The emission factors and methodology stated in Appendix B shall be used in the development of the compliance forms.
3. **Material Handling**
- A. Riverview Commerce Park is permitted to handle the following materials with Dock #1:
- 1.) Sand

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

B. Riverview Commerce Park is permitted to handle the following materials with Dock #2:

- 1.) Sand
- 2.) Copper and Zinc Concentrate
- 3.) Limestone
- 4.) Low Moisture Ore
- 5.) Pellet Ore
- 6.) Lump Ore
- 7.) Slag
- 8.) Blended Ore
- 9.) Soda Ash
- 10.) Grain
- 11.) Fertilizer
- 12.) Rock Salt

C. Riverview Commerce Park is permitted to handle the following materials with Rail #1:

- 1.) Sand
- 2.) Limestone
- 3.) Slag
- 4.) Pellet Ore
- 5.) Lump Ore
- 6.) Blended Ore
- 7.) High Moisture Ore
- 8.) Grain
- 9.) Fertilizer
- 10.) Rock Salt

D. Riverview Commerce Park is permitted to handle the following materials in storage piles:

- 1.) Pellet Ore
- 2.) Lump Ore
- 3.) Slag
- 4.) Blended Ore
- 5.) Limestone
- 6.) Sand

E. For alternative materials, Riverview Commerce Park shall calculate the PTE of the project. If the PTE is greater than the insignificant levels for

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

any criteria pollutant in 10 CSR 6.601 (3) (A) 3.A, then RCP shall seek approval from the Air Pollution Control Program before the use of the alternative material. If PTE is less than insignificant levels, RCP shall retain calculations on site and make available upon request. The calculation methodology from Appendix B shall be used to show compliance. If a range of HAPs content is given in the safety data sheets (SDS), the highest value shall be used.

4. Record Keeping and Reporting Requirements
 - A. Riverview Commerce Park shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - B. Riverview Commerce Park shall report to the Air Pollution Control Program's Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.



Appendix A- Air Pollution Control Program Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CHLOROPRENE	126-99-8	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y
ACETOPHENONE	98-86-2	1		Y	N	CHROMIUM COMPOUNDS		5	L	N	Y
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CHRYSENE	218-01-9	0.01	V	Y	N
ACROLEIN	107-02-8	0.04		Y	N	COBALT COMPOUNDS		0.1	M	N	Y
ACRYLAMIDE	79-06-1	0.02		Y	N	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N
ACRYLIC ACID	79-10-7	0.6		Y	N	CRESOL, [META-]	108-39-4	1	B	Y	N
ACRYLONITRILE	107-13-1	0.3		Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N
AMINOBIIPHENYL, [4-]	92-67-1	1	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N
ANILINE	62-53-3	1		Y	N	CUMENE	98-82-8	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y
ANTIMONY COMPOUNDS		5	H	N	Y	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	DIAZOMETHANE	334-88-3	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	DIOXINS/FURANS		6E-07	D,V	Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	DIBENZOFURAN	132-64-9	5	V	Y	N
ASBESTOS	1332-21-4	0	A	N	Y	DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N
BENZENE	71-43-2	2		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y
BENZIDINE	92-87-5	0.0003	V	Y	N	DICHLOROBENZENE, [1,4-]	106-46-7	3		Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	DICHLOROBENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DICHLOROMETHANE	75-09-2	10		N	N
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y
BERYLLIUM SALTS		2E-05	J	N	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DICHLORVOS	62-73-7	0.2		Y	N
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
BROMOFORM	75-25-2	10		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
CAPROLACTAM (Delisted)	105-60-2					DIMETHYL PHTHALATE	131-11-3	10		Y	N
CAPTAN	133-06-2	10		Y	Y	DIMETHYL SULFATE	77-78-1	0.1		Y	N



Appendix A- Air Pollution Control Program Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
CARBARYL	63-25-2	10	V	Y	Y	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
CARBON DISULFIDE	75-15-0	1		Y	N	DIMETHYLANILINE, [N-N-]	121-69-7	1		Y	N
CARBON TETRACHLORIDE	56-23-5	1		Y	N	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
CARBONYL SULFIDE	463-58-1	5		Y	N	DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
CATECHOL	120-80-9	5		Y	N	DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
CHLORAMBEN	133-90-4	1		Y	Y	DIOXANE, [1,4-]	123-91-1	6		Y	N
CHLORDANE	57-74-9	0.01		Y	Y	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
CHLORINE	7782-50-5	0.1		N	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
CHLOROACETIC ACID	79-11-8	0.1		Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
CHLOROBENZENE	108-90-7	10		Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	ETHYL ACRYLATE	140-88-5	1		Y	N
CHLOROFORM	67-66-3	0.9		Y	N	ETHYL BENZENE	100-41-4	10		Y	N
ETHYL CHLORIDE	75-00-3	10		Y	N	NITROBENZENE	98-95-3	1		Y	N
ETHYLENE GLYCOL	107-21-1	10		Y	N	NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N
ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2					NITROPHENOL, [4-]	100-02-7	5		Y	N
ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N	NITROPROPANE, [2-]	79-46-9	1		Y	N
ETHYLENE IMINE [AZIRIDINE]	151-56-4	0.003		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N
ETHYLENE OXIDE	75-21-8	0.1		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N
ETHYLENE THIOUREA	96-45-7	0.6		Y	Y	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N
FORMALDEHYDE	50-00-0	2		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N
GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N	PARATHION	56-38-2	0.1		Y	Y
GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y
HEPTACHLOR	76-44-8	0.02		Y	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N
HEXACHLOROBENZENE	118-74-1	0.01		Y	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N
HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N	PHENOL	108-95-2	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N	PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N
HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N	PHOSGENE	75-44-5	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N	PHOSPHINE	7803-51-2	5		N	N
HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	PHTHALIC ANHYDRIDE	85-44-9	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	POLYCYCLIC ORGANIC MATTER		0.01	V	Y	N
HEXAMETHYLENE,-1,6-DIISOCYANATE	822-06-0	0.02		Y	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PROPIONALDEHYDE	123-38-6	5		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PROPYLENE OXIDE	75-56-9	5		Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N
HYDROQUINONE	123-31-9	1		Y	N	QUINOLINE	91-22-5	0.006		Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	QUINONE	106-51-4	5		Y	N
ISOPHORONE	78-59-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y
LEAD COMPOUNDS		0.01	Q	N	Y	SELENIUM COMPOUNDS		0.1	W	N	Y
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	STYRENE	100-42-5	1		Y	N



**Appendix A- Air Pollution Control Program
Table of Hazardous Air Pollutants and Screening Model Action Levels**

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
MALEIC ANHYDRIDE	108-31-6	1		Y	N	STYRENE OXIDE	96-09-3	1		Y	N
MANGANESE COMPOUNDS		0.8	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN, [2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y
MERCURY COMPOUNDS		0.01	S	N	N	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N
METHANOL	67-56-1	10		Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N
METHOXYCHLOR	72-43-5	10	V	Y	Y	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N	TOLUENE	108-88-3	10		Y	N
METHYL CHLORIDE	74-87-3	10		Y	N	TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N
METHYL ETHYL KETONE (Delisted)	78-93-3					TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N
METHYL HYDRAZINE	60-34-4	0.06		Y	N	TOXAPHENE	8001-35-2	0.01		Y	N
METHYL IODIDE	74-88-4	1		Y	N	TRICHLOROENZENE, [1,2,4-]	120-82-1	10		Y	N
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N
METHYL ISOCYANATE	624-83-9	0.1		Y	N	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N
METHYL METHACRYLATE	80-62-6	10		Y	N	TRICHLOROETHYLENE	79-01-6	10		Y	N
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TRIETHYLAMINE	121-44-8	10		Y	N
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TRIFLURALIN	1582-09-8	9		Y	Y
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
MINERAL FIBERS		0	T	N	Y	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
NAPHTHALENE	91-20-3	10	V	Y	N	VINYL ACETATE	108-05-4	1		Y	N
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	VINYL BROMIDE	593-60-2	0.6		Y	N
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	VINYL CHLORIDE	75-01-4	0.2		Y	N
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
NICKEL COMPOUNDS		1	U	N	Y	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
NICKEL REFINERY DUST		0.08	U	N	Y						
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y						



Appendix A- Air Pollution Control Program Table of Hazardous Air Pollutants and Screening Model Action Levels

Legend	
Group ID	
A	Asbestos
B	Cresols/Cresylic Acid (isomers and mixtures)
C	2,4 - D, Salts and Esters
D	Dibenzofurans, Dibenzodioxins
E	4, 6 Dinitro-o-cresol, and Salts
F	Lindane (all isomers)
G	Xylenes (all isomers and mixtures)
H	Antimony Compounds
I	Arsenic Compounds
J	Beryllium Compounds
K	Cadmium Compounds
L	Chromium Compounds
M	Cobalt Compounds
N	Coke Oven Emissions
O	Cyanide Compounds
P	Glycol Ethers
Q	Lead Compounds (except elemental Lead)
R	Manganese Compounds
S	Mercury Compounds
T	Fine Mineral Fibers
U	Nickel Compounds
V	Polycyclic Organic Matter
W	Selenium Compounds
X	Polychlorinated Biphenyls (Aroclors)
Y	Radionuclides
Notes	The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million

Appendix B
HAPs, PM₁₀, and PM_{2.5} Tracking methodology and Composite Emission Factors

PM, PM₁₀, and PM_{2.5} Composite Emission Factors by Material

Dock #2	Load/Unload PM(lb/ton)	Load/Unload PM ₁₀ (lb/ton)	Load/ Unload- PM _{2.5} (lb//ton)	Additional Information:
Dock #2 - Industrial Sand (EP15-EP17 from permit#:072014-006B)	0.0002	0.0031	0.0018	11.19.2, Truck Unloading 30502031 & 11.19.2, Truck Loading - conveyor 30502032 includes haul road emissions for PM ₁₀ & PM _{2.5} (don't add again)
Dock #2 – Copper and Zinc Concentrate (EP15-EP17 from permit#:072014-006B)	0.01	0.0110	0.0098	11.24, High moisture ore handling 30302408 includes haul road emissions for PM ₁₀ and PM _{2.5} (don't add again)
Dock #2 - Limestone (EP15&EP16)	0.0002	0.000116	0.000048	11.19.2, Truck Unloading 30502031 & 11.19.2, Truck Loading - conveyor 30502032
Dock #2 - Low Moisture Ore Loading(EP15&EP16)	0.12	0.12	0.12	11.24, Low moisture ore, material handling/transfer
Dock #2 - Pellet Ore (EP15&EP16)	0.005102	0.004827	0.000730878	13.2.4, Aggregate Handling (drop point eq.)
Dock #2 - Lump Ore (EP15&EP16)	0.001451	0.001373	0.000207915	13.2.4, Aggregate Handling (drop point eq.)
Dock #2 - Slag (EP15&EP16)	0.017293	0.016358	0.002477045	13.2.4, Aggregate Handling (drop point eq.)
Dock #2 - Blended Ore	0.001096	0.001037	0.000156991	13.2.4, Aggregate Handling (drop point eq.)
Dock #2 - Soda Ash (EP15&EP16)	0.2652	0.104	0.104	Soda Ash Storage/Loading/Unloading 30102399
Dock #2 - Grain (EP15&EP16)	0.18	0.088	0.0149	Grain Receiving 30200505 Grain Shipping 30200560
Dock #2 - Fertilizer (EP15&EP16)	0.040607	0.038412	0.005816728	13.2.4, Aggregate Handling (drop point eq.)
Dock #2 - Rock Salt(EP15&EP16)	0.005831	0.005516	0.000835208	13.2.4, Aggregate Handling (drop point eq.)
Rail #1				
Rail #1 – Industrial Sand (EP11-EP-13 from permit 072014-006B)	0.0002	0.0063	0.0021	11.19.2, Truck Unloading 30502031 & 11.19.2, Truck Loading - conveyor 30502032 includes haul road emissions for PM ₁₀ and PM _{2.5} (don't add again)
Rail #1 – Limestone (EP11-EP12)	0.0002	0.000116	0.000048	11.19.2, Truck Unloading 30502031 & 11.19.2, Truck Loading - conveyor 30502032

Appendix B

HAPs, PM₁₀, and PM_{2.5} Tracking methodology and Composite Emission Factors

Rail #1 – Slag (EP11-EP12)	0.017293	0.016358	0.002477	13.2.4, Aggregate Handling (drop point eq.)
Rail #1 - Pellet Ore (EP11-EP12)	0.005102	0.004827	0.000731	13.2.4, Aggregate Handling (drop point eq.)
Rail #1 - Lump Ore (EP11-EP12)	0.001451	0.001373	0.000208	13.2.4, Aggregate Handling (drop point eq.)
Rail #1 - Blended Ore (EP11-EP12)	0.001096	0.001037	0.000157	13.2.4, Aggregate Handling (drop point eq.)
Rail #1 - High Moisture Ore (EP11-EP12)	0.01	0.008	0.008	11.24, High moisture ore handling 30302408
Rail #1 – Grain (EP11-EP12)	0.18	0.088	0.0149	Grain Receiving 30200505 Grain Shipping 30200560
Rail #1 – Fertilizer (EP11-EP12)	0.040607	0.038412	0.005816728	13.2.4, Aggregate Handling (drop point eq.)
Rail #1 - Rock Salt (EP11-EP12)	0.005831	0.005516	0.000835208	13.2.4, Aggregate Handling (drop point eq.)
Dock #1				
Dock #1 – Industrial Sand (EP1-EP9)	0.0002	0.0036	0.0018	11.19.2, Truck Unloading 30502031 & 11.19.2, Truck Loading - conveyor 30502032 includes haul road emissions for PM ₁₀ and PM _{2.5} (don't add again)
Outdoor Storage Pile (EP-14) composite emission factors for load in, load out.				
Pellet ore	0.00510	0.00241	0.00037	Parameters from AP-42, Section 13.2.4, Table 13.2.1-1
Lump ore	0.001451	0.000687	0.000104	
Slag	0.017293	0.008179	0.0012385	
Blended ore	0.001096	0.000518	7.85E-05	
Limestone	0.025353	0.011991	0.0018158	
River Sand	0.000934	0.000442	6.69E-05	
Outdoor Storage pile wind erosion (EP-14)				
Material:	PM (lb/Acr-hr)	PM₁₀ (lb/Acr-hr)	PM_{2.5} (lb/Acr-hr)	Parameters from AP-42, Section 13.2.4, Table 13.2.1-1
Pellet ore	0.47927	0.23966	0.03595	
Lump ore	1.05884	0.52947	0.07942	
Slag	0.59072	0.29539	0.04431	
Blended ore	1.67186	0.83601	0.12540	
Limestone	0.17833	0.08917	0.01338	
River Sand	0.28979	0.14491	0.02174	

Appendix B

HAPs, PM₁₀, and PM_{2.5} Tracking methodology and Composite Emission Factors

Haul Road	PM10 (lb/VMT)	PM2.5 (lb/VMT)	Road Length (miles)	Avg Wt (tons)	Monthly VMT =	= (2 * HR length * Amt hauled)/ Avg. Wt. of Load	
Dock #1 (EP9)	1.2485	0.1248	0.2856	26.5		0.021555	* Amt Hauled
Rail #1 (EP13)	1.7527	0.1753	0.2856	26.5		0.021555	* Amt Hauled
Dock #2 (EP17)	1.7527	0.1753	0.3152	26.5		0.023789	* Amt Hauled
Vehicular activity (storage piles) (EP14)	2.0255	0.2026	0.0095	40.5		0.000461	*Amt Hauled
Control:	90%	40%					

Methodology:

No HAPs present Loading and Unloading:

Monthly emissions for PM_{2.5} & PM₁₀ (tons) = (# of tons loaded/unloaded * material emissions factor listed above) / (2,000lb/ton)

HAPs present Loading and Unloading:

Monthly emissions for HAPs (tons) = (# of tons loaded/unloaded * PM material emissions factor listed above) * (% HAP from material SDS) / (2,000lb/ton)

Stockpile wind erosion (No HAPs):

Monthly emission for PM_{2.5}, PM₁₀ (tons) = (Representative Emission Factor for outdoor storage pile wind erosion listed above) * (# of acres) * (4.38)

Stockpile wind erosion (HAPs):

Monthly emission for PM_{2.5}, PM₁₀ (tons) = (Representative Emission Factor for outdoor storage pile wind erosion listed above) * (# of acres) * (4.38) * (% HAP from material SDS)

Haul Roads (No HAPs):

Monthly VMT = (2 * Haul road length (miles) * amount hauled (tons/month)) / Avg. Wt. of Load (tons)

Monthly emission for PM_{2.5} & PM₁₀ (tons) = ((Monthly VMT * (Pollutant lb/VMT)) / 2000) * (1 - Control efficiency)

The summation of each month's emission for all pollutants (PM₁₀, PM_{2.5}, & HAPs) for loading, unloading, stock piling, and haul roads indicates compliance with Special Condition 2.A., 2.B. and 2.C.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources' personnel upon request.
3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources' personnel upon request.