Missouri Department of NATURAL RESOURCES
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Eric R. Greitens, Governor
Carol S. Comer, Director

NOV 2 8 2017

Mr. Michael Henry
Environmental Manager
Gavilon Fertilizer LLC - St. Joseph
1331 Capitol Avenue
Omaha, NE 68102

RE: New Source Review Permit Amendment - Permit Number: 122014-002B
Project Number: 2017-03-045; Installation Number: 021-0131

Dear Mr. Henry:

On March 14, 2017 the Air Pollution Control Program received an amendment request for Gavilon Fertilizer. They acquired the neighboring St. Joe Terminal, LLC (021-0102) in February of 2017. Since both of these facilities are located on adjacent properties, classified under the same Standard Industrial Classification code (2875) and are now under common ownership and control, they are considered one installation as defined by 10 CSR 10-6.020 (2)(I)17.B for permitting purposes.

Gavilon Fertilizer is taking a volunteer limits to keep the installation, now both the existing facility and the St. Joe Therminal under de minimis levels. The potential emissions were recalculated to allow Gavilon to take a throughput limit. Table 1 contains a list of equipment affected by the acquisition of St. Joe Terminal, LLC and their associated maximum hourly design rate (MHDR). The emission factors used in this analysis were obtained from the EPA's WebFIRE database (SCC 3-01-027-09, Ammonium Nitrate Production Bulk Loading) and (SCC 3-01-040-07, Urea Production Bulk Loading). Emission from EU-02, EU-03 and EU-10 are controlled by being located inside a building with a 3.7% control efficiency. All other emission were considered uncontrolled. Haul road emissions were calculated using the predictive equation found in AP-42 Section 13.2.2 Unpaved Roads (November 2006) and Section 13.2.1 Paved Roads (January 2011). The haul road emissions are only from production related traffic for all parts of the plant. The fertilizer conveyors are located inside of a building. This was given a control efficiency of 3.7%. In order to remain conservative, it was assumed that all receiving and shipping operations are carried out by straight trucks. Potential emissions are summarized in Table 2.

Table 1. Installation Equipment List

Original Emission Point	Original Facility	Description	New Emission Point	Description	MHDR (ton/hr)
EU-01	Gavilon Fertilizer	Inbound Haul Road	Combined with EU-07		
EU-02	Gavilon Fertilizer	Truck Receiving	EU-01	Dry Fertilizer Receiving	200
EU-03	Gavilon Fertilizer	Rail Receiving	Combined with EU-01		
EU-04	Gavilon Fertilizer	Conveyor 1	EU-02	Dry Fertilizer Conveyor 1	200
EU-05	Gavilon Fertilizer	Conveyor 2	EU-03	Dry Fertilizer Conveyor 2	200
EU-08	Gavilon Fertilizer	Delumper	EU-04	Dry Fertilizer Delumper	100
EU-09	Gavilon Fertilizer	Truck Loading	EU-05	Dry Fertilizer Truck Loadout	200
EU-10	Gavilon Fertilizer	Outbound Haul Road	EU-07	Haul Road, 1600 ft, unpaved, 747 ft paved	200
EU-11	Gavilon Fertilizer	Liquid Urease Inhibitor	EU-06	Fertilizer Additive and Coatings & Haul Roads, 686 ft unpaved	0.01
			EU-08	Liquid Fertilizer Haul Roads, 300 ft upaved, 2982 ft paved	11.4
EU-01	St. Joe Terminal	Dry Fertilizer Receiving	EU-09	Dry Fertilizer Receiving	1200
EU-02	St. Joe Terminal	Dry Fertilizer Distribution	EU-10	Dry Fertilizer Conveyor 3	1200
EU-03	St. Joe Terminal	Dry Fertilizer Loadout	EU-11	Dry Fertilizer Truck Loadout	1200
EU-04	St. Joe Terminal	Haul Road	EU-12	Dry Fertilizer Haul Road, 1600 ft unpaved, 747 ft paved	1200

Table 2. Installation Emissions Summary (tpy)

Pollutant	Regulatory *De Minimis* Levels	Potential Emissions of the Installation	Installation Conditioned Potential Emissions
PM	25.0	550.1	N/D
PM_{10}	15.0	376.1	14.2
$PM_{2.5}$	10.0	121.4	N/D
SOx	40.0	N/A	N/A
NOx	40.0	N/A	N/A
VOC	40.0	2549.0	<40.0
CO	100.0	N/A	N/A
HAPs	10.0/25.0[1]	15.1	<10.0/25.0[1]
Ethylene Glycol	10.0[2]	15.1	<10.0

N/A = Not Applicable; N/D = Not Determined
[1]Individual HAP limit is 10.0 tpy, combined HAP limit is 25.0 tpy
[2]The SMAL for ethylene glycol is 10 tpy

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 Sam Anzalone, 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

Kendall B. Hale

Kendall B. Hale
Permits Section Chief

KBH:saj

Enclosures

c: Kansas City Regional Office
PAMS File: 2017-03-045

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."

Gavilon Fertilizer LLC - St. Joseph
Buchanan County, S20, T57N, R35W

1. Superseding Condition
   The conditions of this permit supersede all special conditions found in the construction permits 122014-002, 122014-002A, 1297-019, and 052009-014 issued previously by the Air Pollution Control Program.

2. Dry Fertilizer Throughput Limitation
   A. Gavilon Fertilizer LLC - St. Joseph shall limit the throughput of dry fertilizer to not exceed 214,250 tons in any consecutive 12-month period for the following emission units.
      1.) EU-01, EU-02, EU-03, EU-04, EU-05, EU-06, EU-07, EU-08, EU-09, EU-10, EU-11, EU-12

   B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 2.A

3. Liquid Fertilizer Throughput Limitation
   A. Gavilon Fertilizer LLC - St. Joseph shall limit the throughput of liquid fertilizer to not exceed 100,000 tons in any consecutive 12-month period for receiving and shipping liquid fertilizer (EU-08)

   B. Attachment B or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 3.A

4. Fertilizer Additives and Coating Throughput Limitation
   A. Gavilon Fertilizer LLC - St. Joseph shall limit the volume of fertilizer additives and coatings (EU-06) use to not exceed 20,000 gallons in any consecutive 12-month period.

SPECIAL CONDITIONS:

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

B. Attachment C or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 4.A.

5. Use of Alternative Fertilizer Additives and Coating

A. When using an alternative fertilizer additives or coatings that are different than the material listed in the Application for Authority to Construct for permit 122014-002A, Gavilon Fertilizer LLC - St. Joseph shall calculate and verify that the VOC concentration in the alternative material does not exceed 4 pounds per gallon.

B. When using an alternative fertilizer additives or coatings that are different than the material listed in the Application for Authority to Construct for permit 122014-002A, Gavilon Fertilizer LLC - St. Joseph shall calculate and verify that the HAP concentration in the alternative material does not exceed 2.5 pounds per gallon of combined HAP.

C. When using an alternative fertilizer additives or coatings that are different than the material listed in the Application for Authority to Construct for permit 122014-002A, Gavilon Fertilizer LLC - St. Joseph shall calculate and verify that the HAP concentration in the alternative material does not exceed 1.0 pounds per gallon per individual HAP and compare it to the SMAL.

D. Attachment D or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 5.A, 5.B, and 5.C.

E. In cases where the potential individual HAP emissions for the alternative fertilizer additives or coatings at 20,000 gallons per year is above the SMAL for any chemical listed in Appendix B, Gavilon Fertilizer LLC - St. Joseph shall submit an application for Authority to Construct to the Air Pollution Control Program.

6. Record Keeping and Reporting Requirements

A. Gavilon Fertilizer LLC - St. Joseph 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. These records shall include SDS for all materials used

SPECIAL CONDITIONS:

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

B. Gavilon Fertilizer LLC - St. Joseph shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

Attachment A – Dry Fertilizer Throughput Compliance Worksheet

Site Name: Gavilon Fertilizer LLC - St. Joseph
Site Address: 201 E Florence Rd, St. Joseph, MO 64501
Site County: Buchanan, S20, T57N, R35W

This sheet covers the period from _____ to _____ (Copy as needed)
(Month Day, Year) (Month Day, Year)

A Month/Year	B Dry Fertilizer Received this month (tons)[1]	C Dry Fertilizer Received on this Month Last year (tons)[2]	D 12-Month Rolling Total of Dry Fertilizer Received (tons) from last month	E Rolling 12-Month Total Dry Fertilizer Received (tons)
Example	*1,500*	*1,500*	*16,500*	*16,500*

[1] Record the amount of dry fertilizer received for the month in tons.
[2] Record the amount of dry fertilizer received on this month last year in tons.
[3] Calculate using the following equation for dry fertilizer received: E = D + B – C.

A total of less than <u>214,250 tons</u> is necessary for compliance with Special Condition 2.A

Attachment B – Liquid Fertilizer Throughput Compliance Worksheet

Site Name: Gavilon Fertilizer LLC - St. Joseph
Site Address: 201 E Florence Rd, St. Joseph, MO 64501
Site County: Buchanan, S20, T57N, R35W

This sheet covers the period from ____________________ to ____________________ (Copy as needed)
(Month Day, Year) (Month Day, Year)

A	B	C	D	E
Month/Year	Liquid Fertilizer Received this Month (tons)[1]	Liquid Fertilizer Received on this Month Last year (tons)[2]	12-Month Rolling Total of Liquid Fertilizer Received (tons) from last month	Rolling 12-Month Total Liquid Fertilizer Received (tons)
Example	*1,500*	*1,500*	*16,500*	*16,500*

[1] Record the amount of liquid fertilizer received for the month in tons.
[2] Record the amount of liquid fertilizer received on this month last year in tons.
[3] Calculate using the following equation for liquid fertilizer received: E = D + B – C.

A total of less than <u>100,000 tons</u> is necessary for compliance with Special Condition 3.A

Attachment C – Fertilizer Additives and Coatings Usage Compliance Worksheet

Site Name: Gavilon Fertilizer LLC - St. Joseph
Site Address: 201 E Florence Rd, St. Joseph, MO 64501
Site County: Buchanan, S20, T57N, R35W

This sheet covers the period from ____________________ to ____________________ (Copy as needed)
(Month Day, Year) (Month Day, Year)

A	B	C	D	E
Month/Year	Fertilizer Additives and Coatings Usage this Month (gallons)[1]	Fertilizer Additives and Coatings Usage on this Month Last year (gallons)[2]	12-Month Rolling Total of Fertilizer Additives and Coatings (gallons) from last month	Rolling 12-Month Total Fertilizer Additives and Coating Usage[3] (gallons)
Example	*1,500*	*1,500*	*16,500*	*16,500*

[1] Record the amount of fertilizer additives and coatings used for the month in gallons.
[2] Record the amount of fertilizer additives and coatings used on this month last year in gallons.
[3] Calculate using the following equation for fertilizer additives and coatings usage: $E = D + B - C$.

A total of less than <u>20,000 gallons</u> is necessary for compliance with Special Condition 4.A

Attachment D – Alternative Fertilizer Additives and Coatings Compliance Worksheet

Site Name: Gavilon Fertilizer LLC - St. Joseph
Site Address: 201 E Florence Rd, St. Joseph, MO 64501
Site County: Buchanan, S20, T57N, R35W

Inhibitor name: _____ Date: _____ (copy this sheet as needed)

A	B	C	D	E	F	G	H
Individual HAP Name and CAS No.	Product Density (lb/gal)	HAP Content (max weight %)	HAP Concentration (lb/gal)	Individual HAP PTE (tons per year)	Individual HAP SMAL (tons per year)	Coating VOC (weight %)	VOC Concentration (lb/gal)
Ethylene Glycol 107-27-1	*9.2*	*1.0%*	*0.092*	*0.92*	*10.0*	*10.9%*	*1.00*
Ethylene Chloride 75-00-3	*9.2*	*0.5%*	*0.046*	*0.475*	*10.0*		
Combined HAPs							

A. Record all individual HAPs from this fertilizer additives or coating SDS.
B. Record the Product Density (lbs/gal)
C. Record the Individual HAP Content % from the SDS. If a range of values is listed, record the highest value in the range.
D. Calculate the individual HAP concentration by using the following equation: D = B x C / 100. A individual HAP concentration of less than 1.0 lb/gal is necessary for compliance with Special Condition 5.C Combine the HAP concentration of all HAPs in the fertilizer additive or coating. A combined HAP concentration of 2.5 lb/gal or less is necessary for compliance with Special Condition 5.B
E. Calculate the Individual HAP PTE (tons per year): E = 20,000 gal/yr x B x C / 2000 lb/ton / 100
F. Record the individual HAP SMAL from Appendix B or the most recent HAP SMAL Table, located at http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf Seek approval from the Air Pollution Control Program New Source Review Unit before using this coating if the individual HAP potential to emit is greater than the SMAL.
G. Record or calculate the VOC weight % from the SDS. If a range of values is listed, record the highest value in the range. Verify VOC status according to 10 CSR 10-6.020 *Definitions and Common Reference Tables* (2)(V)13.

Calculate the VOC concentration by using the following equation: H = B x G / 100. A VOC concentration of 4.0 lb/gal or less is necessary for compliance with Special Condition 5.A

Appendix B: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N
ACETAMIDE	60-35-5	1		Y	N
ACETONITRILE	75-05-8	4		Y	N
ACETOPHENONE	98-86-2	1		Y	N
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y
ACROLEIN	107-02-8	0.04		Y	N
ACRYLAMIDE	79-06-1	0.02		Y	N
ACRYLIC ACID	79-10-7	0.6		Y	N
ACRYLONITRILE	107-13-1	0.3		Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N
AMINOBIPHENYL, [4-]	92-67-1	1	V	Y	N
ANILINE	62-53-3	1		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N
ANTIMONY COMPOUNDS		5	H	N	Y
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y
ARSENIC COMPOUNDS		0.005	I	N	Y
ASBESTOS	1332-21-4	0	A	N	Y
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N
BENZENE	71-43-2	2		Y	N
BENZIDINE	92-87-5	0.0003	V	Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N
BERYLLIUM COMPOUNDS		0.008	J	N	Y
BERYLLIUM SALTS		2E-05	J	N	Y
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N
BROMOFORM	75-25-2	10		Y	N
BROMOMETHANE	74-83-9	10		Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y
CALCIUM CYANAMIDE	156-62-7	10		Y	Y
CAPROLACTAM (Delisted)	105-60-2				
CARBARYL	63-25-2	10	V	Y	Y
CARBON DISULFIDE	75-15-0	1		Y	N
CARBON TETRACHLORIDE	56-23-5	1		Y	N
CARBONYL SULFIDE	463-58-1	5		Y	N
CATECHOL	120-80-9	5		Y	N
CHLORAMBEN	133-90-4	1		Y	Y
CHLORDANE	57-74-9	0.01		Y	Y
CHLORINE	7782-50-5	0.1		N	N
CHLOROACETIC ACID	79-11-8	0.1		Y	N
CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N
CHLOROBENZENE	108-90-7	10		Y	N
CHLOROBENZILATE	510-15-6	0.4	V	Y	Y
CHLOROFORM	67-66-3	0.9		Y	N
CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N
CHLOROPRENE	126-99-8	1		Y	N
CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y
CHROMIUM COMPOUNDS		5	L	N	Y
CHRYSENE	218-01-9	0.01	V	Y	N
COBALT COMPOUNDS		0.1	M	N	Y
COKE OVEN EMMISIONS	8007-45-2	0.03	N	Y	N
CRESOL, [META-]	108-39-4	1	B	Y	N
CRESOL, [ORTHO-]	95-48-7	1	B	Y	N
CRESOL, [PARA-]	106-44-5	1	B	Y	N
CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N
CUMENE	98-82-8	10		Y	N
CYANIDE COMPOUNDS		0.1	O	Y	N
DDE	72-55-9	0.01	V	Y	Y
DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N
DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N
DIAZOMETHANE	334-88-3	1		Y	N
DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N
DIOXINS/FURANS		6E-07	D,V	Y	N
DIBENZOFURAN	132-64-9	5	V	Y	N
DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N
DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N
DIBUTYL PHTHALATE	84-74-2	10		Y	Y
DICHLOROBENZENE, [1,4-]	106-46-7	3		Y	N
DICHLOROBENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y
DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N
DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N
DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N
DICHLOROMETHANE	75-09-2	10		N	N
DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
DICHLORVOS	62-73-7	0.2		Y	N
DIETHANOLAMINE	111-42-2	5		Y	N
DIETHYL SULFATE	64-67-5	1		Y	N
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
DIMETHYL FORMAMIDE	68-12-2	1		Y	N
DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
DIMETHYL PHTHALATE	131-11-3	10		Y	N
DIMETHYL SULFATE	77-78-1	0.1		Y	N
DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
DIMETHYLANILINE, [N-N-]	121-69-7	1		Y	N
DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
DIOXANE, [1,4-]	123-91-1	6		Y	N
DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
EPICHLOROHYDRIN	106-89-8	2		Y	N
ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
ETHYL ACRYLATE	140-88-5	1		Y	N
ETHYL BENZENE	100-41-4	10		Y	N
ETHYL CHLORIDE	75-00-3	10		Y	N
ETHYLENE GLYCOL	107-21-1	10		Y	N
ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2				
ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N
ETHYLENE IMINE [AZIRIDINE]	151-56-4	0.003		Y	N
ETHYLENE OXIDE	75-21-8	0.1		Y	N
ETHYLENE THIOUREA	96-45-7	0.6		Y	Y
FORMALDEHYDE	50-00-0	2		Y	N
GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N
GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N
HEPTACHLOR	76-44-8	0.02		Y	N
HEXACHLOROBENZENE	118-74-1	0.01		Y	N
HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N
HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N
HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N
HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N

Appendix B: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (lbs/yr)	Group ID	VOC	PM
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N
HEXAMETHYLENE,-1,6-DIISOCYANATE	822-06-0	0.02		Y	N
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N
HEXANE, [N-]	110-54-3	10		Y	N
HYDRAZINE	302-01-2	0.004		N	N
HYDROGEN CHLORIDE	7647-01-0	10		N	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N
HYDROQUINONE	123-31-9	1		Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N
ISOPHORONE	78-59-1	10		Y	N
LEAD COMPOUNDS		0.01	Q	N	Y
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N
MALEIC ANHYDRIDE	108-31-6	1		Y	N
MANGANESE COMPOUNDS		0.8	R	N	Y
MERCURY COMPOUNDS		0.01	S	N	N
METHANOL	67-56-1	10		Y	N
METHOXYCHLOR	72-43-5	10	V	Y	Y
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N
METHYL CHLORIDE	74-87-3	10		Y	N
METHYL ETHYL KETONE (Delisted)	78-93-3				
METHYL HYDRAZINE	60-34-4	0.06		Y	N
METHYL IODIDE	74-88-4	1		Y	N
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N
METHYL ISOCYANATE	624-83-9	0.1		Y	N
METHYL METHACRYLATE	80-62-6	10		Y	N
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N
MINERAL FIBERS		0	T	N	Y
NAPHTHALENE	91-20-3	10	V	Y	N
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y
NICKEL COMPOUNDS		1	U	N	Y
NICKEL REFINERY DUST		0.08	U	N	Y
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y
NITROBENZENE	98-95-3	1		Y	N
NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N
NITROPHENOL, [4-]	100-02-7	5		Y	N
NITROPROPANE, [2-]	79-46-9	1		Y	N
NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N
NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N
NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N
OCTACHLORONAPTHALENE	2234-13-1	0.01	V	Y	N
PARATHION	56-38-2	0.1		Y	Y
PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y
PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N
PENTACHLOROPHENOL	87-86-5	0.7		Y	N
PHENOL	108-95-2	0.1		Y	N
PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N
PHOSGENE	75-44-5	0.1		Y	N
PHOSPHINE	7803-51-2	5		N	N
PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N
PHTHALIC ANHYDRIDE	85-44-9	5		Y	N
POLYCYLIC ORGANIC MATTER		0.01	V	Y	N
PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y
PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N
PROPIONALDEHYDE	123-38-6	5		Y	N
PROPOXUR [BAYGON]	114-26-1	10		Y	Y
PROPYLENE OXIDE	75-56-9	5		Y	N
PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N
QUINOLINE	91-22-5	0.006		Y	N
QUINONE	106-51-4	5		Y	N
RADIONUCLIDES		Note 1	Y	N	Y
SELENIUM COMPOUNDS		0.1	W	N	Y
STYRENE	100-42-5	1		Y	N
STYRENE OXIDE	96-09-3	1		Y	N
TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y
TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N
TETRACHLOROETHYLENE	127-18-4	10		N	N
TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N
TOLUENE	108-88-3	10		Y	N
TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N
TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N
TOXAPHENE	8001-35-2	0.01		Y	N
TRICHLOROBENZENE, [1,2,4-]	120-82-1	10		Y	N
TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N
TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N
TRICHLOROETHYLENE	79-01-6	10		Y	N
TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N
TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N
TRIETHYLAMINE	121-44-8	10		Y	N
TRIFLURALIN	1582-09-8	9		Y	Y
TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
VINYL ACETATE	108-05-4	1		Y	N
VINYL BROMIDE	593-60-2	0.6		Y	N
VINYL CHLORIDE	75-01-4	0.2		Y	N
XYLENE, [META-]	108-38-3	10	G	Y	N
XYLENE, [ORTHO-]	95-47-6	10	G	Y	N
XYLENE, [PARA-]	106-42-3	10	G	Y	N
XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N

Legend

Group ID	Aggregate Group Name
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

Note 1	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