

The amendments listed below were made to the *Step by Step Guideline for Emission Calculation, Record Keeping and Reporting for Airborne Contaminant Discharge* (the Guideline) on August 27, 2002.

For more information, see the “Amendment to the Step by Step Guideline for Emission Calculation, Record Keeping and Reporting for Airborne Contaminant Discharge” posting on the Environmental Registry (EBR Registry Number: PA02E0030).

Amendment 1

Xylene isomers [m-xylene (CAS 108-38-3), o-xylene (CAS 95-47-6), p-xylene (106-42-3)] have been removed from Table 2B of the Guideline document.

An extract of the original Table 2B is listed below for information purposes only.

The following contaminants have MOE graded MPO thresholds.		
Contaminant	CAS ^[1]	MPO^[22] Threshold (kg/yr)
M-XYLENE	108-38-3	10,000
O-XYLENE	95-47-6	10,000
P-XYLENE	106-42-3	10,000

Amendment 2

The “Notes to Tables 2A, 2B and 2C” section to the Guideline document is amended (see below) so that:

1. Note 18 states “Refer to Annex 1 to Tables 2A, B and C for contaminants listed under glycol ethers (misc.). If one contaminant is equal to or greater than the threshold, then all contaminants in the group, which are manufactured, processed, or otherwise used, must be reported. No emission value should be reported for contaminants that facilities do not manufacture, process or otherwise use.”
2. Note 19 states “Refer to Annex 2 to Tables 2A, B and C for definitions of three mineral spirits groups and the associated contaminants. If one contaminant is equal to or greater than the threshold, then all contaminants in the group, which are manufactured, processed, or otherwise used, must be reported. No emission value should be reported for contaminants that facilities do not manufacture, process or otherwise use.”

The original Notes 18 and 19 are stated below for information purposes only:

[18] Refer to Annex 1 to Tables 2A, B and C for contaminants listed under glycol ethers (misc.). If one contaminant is equal to or greater than the threshold, then all contaminants in the group must be reported.

[19] Refer to Annex 2 to Tables 2A, B and C for definitions of three mineral spirits groups and the associated contaminants. If one contaminant in the group is equal to or greater than the threshold, then all contaminants in that group must be reported.

Amendment 3

Table 2C to the Guideline document is amended (see below) so that, by reference, Table 2C consists of all contaminants listed in the most current National Pollutant Release Inventory (NPRI) *Canada Gazette* notice.

Table 2C consists of all contaminants listed in the most current National Pollutant Release Inventory (NPRI) *Canada Gazette* notice.

Further information and the list of contaminants may be obtained through Environment Canada's NPRI website at <http://www.ec.gc.ca/pdb/npri/>

The original Table 2C is listed below for information purposes only.

The following contaminants have NPRI thresholds.		
Contaminant	CAS^[1]	NPRI^[23] Threshold (kg/yr)
ACETALDEHYDE	75-07-0	Use NPRI ^[23] reporting requirements for releases to air only
ACETONITRILE	75-05-8	
ACETOPHENONE	98-86-2	
ACROLEIN	107-02-8	
ACRYLAMIDE	79-06-1	
ACRYLIC ACID ^[2]	79-10-7	
ACRYLONITRILE	107-13-1	
ALKANES, C6-18, CHLORO	68920-70-7	
ALKANES, C10-13, CHLORO	85535-84-8	
ALLYL ALCOHOL	107-18-6	
ALLYL CHLORIDE	107-05-1	
ALUMINUM ^[3]	7429-90-5	
ALUMINUM OXIDE ^[4]	1344-28-1	
AMMONIA (TOTAL) ^[5]	*	
ANILINE ^[2]	62-53-3	

The following contaminants have NPRI thresholds.

Contaminant	CAS^[1]	NPRI^[23] Threshold (kg/yr)
ANTHRACENE	120-12-7	
ANTIMONY ^[6]		*
ARSENIC ^[6]		*
ASBESTOS ^[7]	1332-21-4	
BENZENE	71-43-2	
BENZO(A)ANTHRACENE	56-55-3	
BENZO(A)PHENANTHRENE	218-01-9	
BENZO(A)PYRENE	50-32-8	
BENZO(B)FLUORANTHENE	205-99-2	
BENZO(E)PYRENE	192-97-2	
BENZO(G,H,I)PERYLENE	191-24-2	
BENZO(J)FLUORANTHENE	205-82-3	
BENZO(K)FLUORANTHENE	207-08-9	
BENZOYL CHLORIDE	98-88-4	
BENZOYL PEROXIDE	94-36-0	
BENZYL CHLORIDE	100-44-7	
BIPHENYL	92-52-4	
BIS(2-ETHYLHEXYL) ADIPATE	103-23-1	
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	
BORON TRIFLUORIDE	7637-07-2	
BROMINE	7726-95-6	
1-BROMO-2-CHLOROETHANE	107-04-0	
BROMOMETHANE	74-83-9	
1,3-BUTADIENE	106-99-0	
2-BUTOXYETHANOL	111-76-2	
BUTYL ACRYLATE	141-32-2	
I-BUTYL ALCOHOL	78-83-1	

The following contaminants have NPRI thresholds.

Contaminant	CAS ^[1]	NPRI ^[23] Threshold (kg/yr)
N-BUTYL ALCOHOL	71-36-3	Use NPRI ^[23] reporting requirements for releases to air only
SEC-BUTYL ALCOHOL	78-92-2	
TERT-BUTYL ALCOHOL	75-65-0	
BUTYL BENZYL PHTHALATE	85-68-7	
1,2-BUTYLENE OXIDE	106-88-7	
BUTYRALDEHYDE	123-72-8	
C.I. ACID GREEN 3	4680-78-8	
C.I. BASIC GREEN 4	569-64-2	
C.I. BASIC RED 1	989-38-8	
C.I. DIRECT BLUE 218	28407-37-6	
C.I. DISPERSE YELLOW 3	2832-40-8	
C.I. FOOD RED 15	81-88-9	
C.I. SOLVENT ORANGE 7	3118-97-6	
C.I. SOLVENT YELLOW 14	842-07-9	
CADMIUM ^[6]	*	
CALCIUM CYANAMIDE	156-62-7	
CALCIUM FLUORIDE	7789-75-5	
CARBON DISULPHIDE	75-15-0	
CARBON TETRACHLORIDE	56-23-5	
CATECHOL	120-80-9	
CFC-11	75-69-4	
CFC-12	75-71-8	
CFC-13	75-72-9	
CFC-114	76-14-2	
CFC-115	76-15-3	
CHLORENDIC ACID	115-28-6	
CHLORINE	7782-50-5	
CHLORINE DIOXIDE	10049-04-4	
CHLOROACETIC ACID ^[2]	79-11-8	
CHLOROBENZENE	108-90-7	
CHLOROETHANE	75-00-3	
CHLOROFORM	67-66-3	
CHLOROMETHANE	74-87-3	
3-CHLORO-2-METHYL-1-PROPENE	563-47-3	
3-CHLOROPROPIONITRILE	542-76-7	
CHROMIUM ^[6]	*	
COBALT ^[6]	*	
COPPER ^[6]	*	
CRESOL ^[2,8]	1319-77-3	
M-CRESOL ^[2]	108-39-4	
O-CRESOL ^[2]	95-48-7	
P-CRESOL ^[2]	106-44-5	
CROTONALDEHYDE	4170-30-3	
CUMENE	98-82-8	
CUMENE HYDROPEROXIDE	80-15-9	
CYANIDES ^[9]	*	
CYCLOHEXANE	110-82-7	
CYCLOHEXANOL	108-93-0	

The following contaminants have NPRI thresholds.

Contaminant	CAS ^[1]	NPRI ^[23] Threshold (kg/yr)
DECABROMODIPHENYL OXIDE	1163-19-5	Use NPRI ^[23] reporting requirements for releases to air only
2,4-DIAMINOTOLUENE ^[2]	95-80-7	
2,6-DI-T-BUTYL-4-METHYLPHENOL	128-37-0	
DIBENZO(A,J)ACRIDINE	224-42-0	
DIBENZO(A,H)ANTHRACENE	53-70-3	
DIBENZO(A,I)PYRENE	189-55-9	
7H-DIBENZO(C,G)CARBAZOLE	194-59-2	
DIBUTYL PHTHALATE	84-74-2	
O-DICHLOROBENZENE	95-50-1	
P-DICHLOROBENZENE	106-46-7	
3,3'-DICHLOROBENZIDINE DIHYDROCHLORIDE	612-83-9	
1,2-DICHLOROETHANE	107-06-2	
DICHLOROMETHANE	75-09-2	
2,4-DICHLOROPHENOL ^[2]	120-83-2	
1,2-DICHLOROPROPANE	78-87-5	
DICYCLOPENTADIENE	77-73-6	
DIETHANOLAMINE ^[2]	111-42-2	
DIETHYL PHTHALATE	84-66-2	
DIETHYL SULPHATE	64-67-5	
DIMETHYLAMINE	124-40-3	
N,N-DIMETHYLANILINE ^[2]	121-69-7	
DIMETHYL PHENOL	1300-71-6	
DIMETHYL PHTHALATE	131-11-3	
DIMETHYL SULPHATE	77-78-1	
4,6-DINITRO-O-CRESOL ^[2]	534-52-1	
2,4-DINITROTOLUENE	121-14-2	
2,6-DINITROTOLUENE	606-20-2	
DINITROTOLUENE ^[8]	25321-14-6	
DI-N-OCTYL PHTHALATE	117-84-0	
1,4-DIOXANE	123-91-1	
DIPHENYLAMINE	122-39-4	
EPICHLOROHYDRIN	106-89-8	
2-ETHOXYETHANOL	110-80-5	
2-ETHOXYETHYL ACETATE	111-15-9	
ETHOXYNONYL BENZENE	28679-13-2	
ETHYL ACRYLATE	140-88-5	
ETHYLBENZENE	100-41-4	
ETHYL CHLOROFORMATE	541-41-3	
ETHYLENE	74-85-1	
ETHYLENE GLYCOL	107-21-1	
ETHYLENE OXIDE	75-21-8	
ETHYLENE THIOUREA	96-45-7	
FLUORANTHENE	206-44-0	
FLUORINE	7782-41-4	
FORMALDEHYDE	50-00-0	
FORMIC ACID	64-18-6	
HALON 1211	353-59-3	
HALON 1301	75-63-8	
HCFC-22	75-45-6	

The following contaminants have NPRI thresholds.

Contaminant	CAS ^[1]	NPRI ^[23] Threshold (kg/yr)
HCFC-122 AND ALL ISOMERS ^[10]	41834-16-6	Use NPRI ^[23] reporting requirements for releases to air only
HCFC-123 AND ALL ISOMERS ^[11]	34077-87-7	
HCFC 124 AND ALL ISOMERS ^[12]	63938-10-3	
HCFC-141B	1717-00-6	
HCFC-142B	75-68-3	
HEXACHLOROBENZENE	118-74-1	
HEXACHLOROCYCLOPENTADIENE	77-47-4	
HEXACHLOROETHANE	67-72-1	
HEXACHLOROPHENE	70-30-4	
N-HEXANE	110-54-3	
HYDRAZINE ^[2]	302-01-2	
HYDROCHLORIC ACID	7647-01-0	
HYDROGEN CYANIDE	74-90-8	
HYDROGEN FLUORIDE	7664-39-3	
HYDROGEN SULFIDE	7783-06-4	
HYDROQUINONE ^[2]	123-31-9	
INDENO(1,2,3-C,D)PYRENE	193-39-5	
IRON PENTACARBONYL	13463-40-6	
ISOBUTYRALDEHYDE	78-84-2	
ISOPHORONE DIISOCYANATE	4098-71-9	
ISOPRENE	78-79-5	
ISOPROPYL ALCOHOL	67-63-0	
<i>P,P'</i> -ISOPROPYLIDENEDIPHENOL	80-05-7	
ISOSAFROLE	120-58-1	
LEAD ^[6]	*	
LITHIUM CARBONATE	554-13-2	
MALEIC ANHYDRIDE	108-31-6	
MANGANESE ^[6]	*	
2-MERCAPTOBENZOTHAZOLE	149-30-4	
MERCURY ^[6,15]	*	
METHANOL	67-56-1	
2-METHOXYETHANOL	109-86-4	
2-METHOXYETHYL ACETATE	110-49-6	
METHYL ACRYLATE	96-33-3	
METHYL <i>TERT</i> -BUTYL ETHER	1634-04-4	
<i>P,P'</i> -METHYLENEBIS(2-CHLOROANILINE)	101-14-4	
1,1-METHYLENEBIS(4-ISOCYANATOCYCLOHEXANE)	5124-30-1	
METHYLENEBIS(PHENYLISOCYANATE)	101-68-8	
<i>P,P'</i> -METHYLENEDIANILINE	101-77-9	
METHYL ETHYL KETONE	78-93-3	
METHYL IODIDE	74-88-4	
METHYL ISOBUTYL KETONE	108-10-1	
METHYL METHACRYLATE	80-62-6	
N-METHYLOLACRYLAMIDE	924-42-5	
2-METHYLPYRIDINE	109-06-8	
N-METHYL-2-PYRROLIDONE	872-50-4	
MICHLER'S KETONE ^[2]	90-94-8	
MOLYBDENUM TRIOXIDE	1313-27-5	

The following contaminants have NPRI thresholds.

Contaminant	CAS ^[1]	NPRI ^[23] Threshold (kg/yr)
NAPHTHALENE	91-20-3	
NICKEL ^[6]		*
NITRATE ION ^[13]		*
NITRIC ACID	7697-37-2	
NITRILOTRIACETIC ACID ^[2]	139-13-9	
<i>P</i> -NITROANILINE	100-01-6	
NITROBENZENE	98-95-3	
NITROGLYCERIN	55-63-0	
<i>P</i> -NITROPHENOL ^[2]	100-02-7	
2-NITROPROPANE	79-46-9	
N-NITROSODIPHENYLAMINE	86-30-6	
NONYLPHENOL	104-40-5	
NONYLPHENOL HEPTA(OXYETHYLENE) ETHANOL	27177-05-5	
NONYLPHENOL, INDUSTRIAL	84852-15-3	
NONYLPHENOL NONA(OXYETHYLENE) ETHANOL	27177-08-8	
<i>N</i> -NONYLPHENOL ^[8]	25154-52-3	
NONYLPHENOL POLYETHYLENE GLYCOL ETHER	9016-45-9	
<i>P</i> -NONYLPHENOL POLYETHYLENE GLYCOL ETHER	26027-38-3	
NONYLPHENOXY ETHANOL	27986-36-3	
2-(<i>P</i> -NONYLPHENOXY) ETHANOL	104-35-8	
2-(2-(<i>P</i> -NONYLPHENOXY)ETHOXY) ETHANOL	20427-84-3	
2-(2-(2-(<i>P</i> -NONYLPHENOXY)ETHOXY)ETHOXY)ETHOXY) ETHANOL	7311-27-5	
4- <i>TERT</i> -OCTYLPHENOL	140-66-9	
OXIRANE, METHYL-, POLYMER WITH OXIRANE, MONO(NOYLPHENYL)ETHER	37251-69-7	
PARALDEHYDE	123-63-7	
PENTACHLOROETHANE	76-01-7	
PERYLENE	198-55-0	
PERACETIC ACID ^[2]	79-21-0	
PHENANTHRENE	85-01-8	
PHENOL ^[2]	108-95-2	
<i>P</i> -PHENYLENEDIAMINE ^[2]	106-50-3	
<i>O</i> -PHENYLPHENOL ^[2]	90-43-7	
PHOSGENE	75-44-5	
PHOSPHORIC ACID	7664-38-2	
PHOSPHORUS ^[14]	7723-14-0	
PHTHALIC ANHYDRIDE	85-44-9	
POLYCHLORINATED DIBENZO-P-DIOXINS & POLYCHLORINATED BIBENZOFURANS ^[16]		*
POLYMERIC DIPHENYLMETHANE DIISOCYANATE	9016-87-9	
POTASSIUM BROMATE	7758-01-2	
PROPARGYL ALCOHOL	107-19-7	
PROPIONALDEHYDE	123-38-6	
PROPYLENE	115-07-1	
PROPYLENE OXIDE	75-56-9	
PYRENE	129-00-0	
PYRIDINE ^[2]	110-86-1	
QUINOLINE ^[2]	91-22-5	

Use NPRI^[23] reporting requirements for releases to air only

The following contaminants have NPRI thresholds.

Contaminant	CAS ^[1]	NPRI ^[23] Threshold (kg/yr)
P-QUINONE	106-51-4	Use NPRI ^[23] reporting requirements for releases to air only
SAFROLE	94-59-7	
SELENIUM ^[6]	*	
SILVER ^[6]	*	
SODIUM FLUORIDE	7681-49-4	
SODIUM NITRITE	7632-00-0	
STYRENE	100-42-5	
STYRENE OXIDE	96-09-3	
SULPHUR HEXAFLUORIDE	2551-62-4	
SULPHURIC ACID	7664-93-9	
1,1,1,2-TETRACHLOROETHANE	630-20-6	
1,1,2,2-TETRACHLOROETHANE	79-34-5	
TETRACHLOROETHYLENE	127-18-4	
TETRACYCLINE HYDROCHLORIDE	64-75-5	
TETRAETHYL LEAD	78-00-2	
THIOUREA	62-56-6	
THORIUM DIOXIDE	1314-20-1	
TITANIUM TETRACHLORIDE	7550-45-0	
TOLUENE	108-88-3	
TOLUENE-2,4-DIISOCYANATE	584-84-9	
TOLUENE-2,6-DIISOCYANATE	91-08-7	
TOLUENEDIISOCYANATE ^[8]	26471-62-5	
1,2,4-TRICHLOROBENZENE	120-82-1	
1,1,2-TRICHLOROETHANE	79-00-5	
TRICHLOROETHYLENE	79-01-6	
TRIETHYLAMINE	121-44-8	
1,2,4-TRIMETHYLBENZENE	95-63-6	
2,2,4-TRIMETHYLHEXAMETHYLENE DIISOCYANATE	16938-22-0	
2,4,4-TRIMETHYLHEXAMETHYLENE DIISOCYANATE	15646-96-5	
VANADIUM ^[3]	7440-62-2	
VINYL ACETATE	108-05-4	
VINYL CHLORIDE	75-01-4	
VINYLDENE CHLORIDE	75-35-4	
XYLENE ^[8]	1330-20-7	
ZINC ^[6]	*	
Total Contaminants:		268