Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

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Approval for Registration in the "Technical Standards Registry – Air Pollution" (Industry Standard) Issued Pursuant to s.39(3) of O. Reg. 419/05 made under the Environmental Protection Act, R.S.O. 1990, as amended

REGISTRATION NUMBER: 102-13-393-rv1
Reference Number: 4787-93ZR6L
Issue Date: March 5, 2021

Applicant: The Hopper Foundry (1977) Limited
2 Clyde Street
Lambton Shores, Ontario
N0N 1J0

Contact person: John H. Vickers, Owner & General Manager

Site Location: The Hopper Foundry (1977) Limited
2 Clyde Street
Lambton Shores, Ontario
N0N 1J0

DEFINITIONS
For the purposes of this Approval,

"Facility" means The Hopper Foundry (1977) Limited operation located at 2 Clyde Street, Lambton Shores, Ontario;

"NAICS" has the same meaning as in section 1 of O. Reg. 419/05;

"Registered Contaminants" means contaminants listed in Appendix A; and

"O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the Environmental Protection Act as it may be amended from time to time.

REGISTRATION INFORMATION
You have applied in accordance with subsection 39(1)(a) of O. Reg. 419/05 for registration in the Ministry's Technical Standards Registry – Air Pollution in respect of:

i. Foundries – Industry Standard as set out in the Ministry Publication "Technical Standards to Manage Air Pollution", Version 7.0, October 27, 2020 (as amended);
ii. the Facility; and
iii. the Registered Contaminants.

GROUNDS FOR APPROVAL OF REGISTRATION

A. I, the Director, am satisfied that:

1. The applicant has submitted a completed application for registration dated September 18, 2019 signed by John H. Vickers, Owner & General Manager and this application was in a form approved by the Director.

2. The information submitted in the application is accurate, to the best of my knowledge.

3. The Foundries – Industry Standard applies to the Facility since it is a grey iron, nickel-iron and bronze metal foundry producing municipal castings and custom parts and is part of a class identified by the NAICS code 331511 iron foundries and 331529 – non-ferrous metal foundries.

4. The Foundries – Industry Standard applies to the Registered Contaminants.

5. The Foundries – Industry Standard contains requirements that relate to at least one source of contaminant in the Facility, namely, metal melting process.

6. There are no provisions in the Foundries – Industry Standard that deal with notification of and consultation with affected persons before making an application for registration.

7. There were no requirements to notify and consult affected persons imposed under subsection 39(5).

8. Any adverse effect that may be caused by discharges of the Registered Contaminant from the Facility into the air will be better prevented, eliminated or ameliorated if the Facility and the Registered Contaminants are registered to the Foundries – Industry Standard.

9. There is no other industry standard that applies to the Facility and the Registered Contaminants that, in my opinion, would be more appropriate.

10. Based on the public consultation conducted including a posting on the Environmental Registry under the Environmental Bill of Rights, I am of the opinion that there is no public interest reason sufficient to refuse approval of the application.

B. Based on the above conclusions and pursuant to the authority under subsection 39(3) of O. Reg. 419/05, I approve the registration of the Facility in the Ministry's Technical Standards Registry – Air Pollution with respect to the Registered Contaminants for the following industry standard:

- Foundries – Industry Standard as described in the Ministry Publication "Technical Standards to Manage Air Pollution", Version 7.0, October 27, 2020 (as amended)

DATED AT TORONTO this 5th day of March 2021

"Originally Signed By"

Heather Malcolmson, Director
Section 39, O. Reg. 419/05

c: Rudolf Wan, Manager, Environmental Permissions Branch
Sean Morrison, Manager, Sarnia District Office

APPENDIX A – Registered Contaminants

Contaminant Name	C.A.S. #	Contaminant Name	C.A.S. #
Contaminants Registered under *Foundries – Industry Standard* Approval Registration No. 102-13-393-rv0			
Aluminum [And Other Compounds]	7429-90-5	Nickel And Nickel Compounds	7440-02-0
Antimony [And Other Compounds]	7440-36-0	Nitrates	14797-55-8
Arsenic And Compounds	7440-38-2	Organic Carbon	Not Available
Barium [And Other Compounds]	7440-39-3	Palladium [And Other Compounds]	7440-05-3
Beryllium And Compounds	7440-41-7	Phosphorus	7723-14-0
Bromine	7726-95-6	Platinum [And Other Compounds]	7440-06-4
Boron	7440-42-8	Potassium [And Other Compounds]	7440-09-7
Cadmium And Cadmium Compounds	7440-43-9	Rhodium [And Other Compounds]	7440-16-6
Calcium [And Other Compounds]	7440-70-2	Rubidium [And Other Compounds]	7440-17-7
Carbon	7440-44-0	Selenium [And Other Compounds]	7782-49-2
Chlorine	7782-50-5	Silica - Respirable (<10 µm Diameter), Quartz	14808-60-7
Chromium And Chromium Compounds (Metallic, Divalent And Trivalent)	7440-47-3	Silicon	36 7440-21-330194, 12597-37-40
Chromium Compounds (Hexavalent)	7440-47-3	Silver [And Other Compounds]	7440-22-4
Cobalt [And Other Compounds]	7440-48-4	Sodium [And Other Compounds]	7440-23-5
Copper [And Other Compounds]	7440-50-8	Strontium [And Other Compounds]	7440-24-6
Gallium [And Other Compounds]	7440-55-3	Sulphates	Not Available
Indium [And Other Compounds]	7440-74-6	Sulphur, Elemental	7704-34-9
Iron [And Other Compounds]	7439-89-6	Suspended Particulate Matter (< 44 µm Diameter)	Not Applicable
Lanthanum	7439-91-0	Thallium [And Other Compounds]	7440-28-0
Lead And Lead Compounds	7439-92-1	Tin [And Other Compounds]	7440-31-5
Magnesium Magnesium [And Other Compounds] (excluding Magnesium Carbonate, Magnesium Chloride, Magnesium Oxide, and Magnesium Stearate)	7439-95-4	Titanium [And Other Compounds]	7440-32-6
Manganese And Manganese Compounds	7439-96-5	Vanadium [And Other Compounds]	7440-62-2
Mercury Mercury (As Hg) – Alkyl Compounds	7439-97-6	Yttrium [And Other Compounds]	7440-65-5
Mercury (Hg) [And Other Compounds]	7439-97-6	Zinc [And Other Compounds]	7440-66-6
Molybdenum [And Other Compounds]	7439-98-7	Zirconium [And Other Compounds]	7440-67-7
Naphthalene, 1,3-Dimethyl-	575-41-7	Dibenzofuran	132-64-9
Naphthalene, 1,4-Dimethyl-	571-58-4	Ethanol (Ethyl Alcohol)	64-17-5
Naphthalene, 1,8-Dimethyl-	569-41-5	Ethylbenzene	100-41-4
1-Methylnaphthalene	90-12-0	Fluoranthene - As B[A]P	206-44-0
Naphthalene, 1,6,7-Trimethyl-	2245-38-7	Formaldehyde	50-00-0
Naphthalene, 2,3-Dimethyl-	581-40-8	Furfuryl Alcohol	98-00-0
Naphthalene, 2,6-Dimethyl-	581-42-0	Hydrogen Cyanide	74-90-8
Naphthalene, 2,7-Dimethyl-	582-16-1	Hydrogen Sulphide	7783-06-4
2-Methylnaphthalene	91-57-6	Indeno(1,2,3-Cd)Pyrene - As B[A]P	193-39-5
Methylene Dianiline	101-77-9	Methanol (Methyl Alcohol)	67-56-1
Acenaphthylene - As B[A]P	208-96-8	Methane Diphenyl Diisocyanate (Mdi Monomer)	101-68-8
Acetaldehyde	75-07-0	Naphthalene	91-20-3
Acetophenone	98-86-2	Hexane, N- (N-Hexane And Hexane Isomers Only)	110-54-3
Acrolein	107-02-8	Hexane, N- (Part Of A Mixture)	110-54-3
Ammonia	7664-41-7	Nitrobenzene	98-95-3
Aniline	62-53-3	Perylene	198-55-0
Anthranthrene - As B[A]P	191-26-4	Phenanthrene - As B[A]P	85-01-8
Anthracene - As B[A]P	120-12-7	Phenol	108-95-2
Benzene	71-43-2	Phenyl isocyanate	103-71-9
Benzo(A)Anthracene - As B[A]P	56-55-3	Propionaldehyde	123-38-6
Benzo(A)Fluoranthene - As B[A]P	203-33-8	Pyrene - As B[A]P	129-00-0
Benzo(A)Pyrene	50-32-8	Styrene	100-42-5
Benzo(B)+(K)Fluoranthene – As B[A]P	205-99-2, 207-08-9	Toluene	108-88-3
Benzo(B)Fluoranthene – As B[A]P	205-99-2	Total Aldehydes (C2-C25)	Not Applicable
Benzo(E)Pyrene - As B[A]P	192-97-2	Total Amines	Not Applicable
Benzo(G,H,I)Perylene - As B[A]P	191-24-2	Trimethylbenzene, 1,2,4- (Individual Isomer Or Trimethylbenzene Mixture)	95-63-6
Benzo(K)Fluoranthene – As B[A]P	207-08-9	Trimethylsilyl Fluoride	420-56-4

Chrysene - As B[A]P	218-01-9	M-xylene	108-38-3
Orthocresol	95-48-7	P-Xylene	106-42-3
Isopropyl Benzene	98-82-8	O-xylene	95-47-6
Dibenz(A,H)Anthracene – As B[A]P	53-70-3	Xylenes	1330-20-7
Dibenzo(A,H)+(A,C) Anthracene - As B[A]P	53-70-3, 215-58-7	Sulphur Dioxide	7446-09-5

Contaminant Name	***C.A.S. #***	***Contaminant Name***	***C.A.S. #***
New Registered Contaminants Added under *Foundries - Industry Standard* Approval Registration No. 102-13-393-rv1			
2-Propanamine, N,N-Dimethyl-	996-35-0	Neodymium [And Other Compounds]	7440-00-8
2-Propenoic Acid, Polymer With Ethyl 2-Propenoate And Isooctyl 2-Propenoate	68540-66-9	Niobium [And Other Compounds]	7440-03-1
Aluminum Oxide	1344-28-1	Oxirane, 2,2'-[(1-Methylethylidene) Bis(4,1-Phenyleneoxymethylene)]Bis-, Homopolymer	25085-99-8
Aluminum Tristearate	637-12-7	Phenol-Formaldehyde Resin	9003-35-4
Barium Chloride ($BaCl_2$)	10361-37-2	Pigment Blue 15	147-14-8
Bentonite	1302-78-9	Poly(Difluoromethylene), A-(Cyclohexylmethyl)-Ω-Hydro-	65530-85-0
Benzene, 1-Isocyanato-2-[(4-Isocyanatophenyl)Methyl]-	5873-54-1	Polydimethylsiloxanes	63148-62-9
Bismuth [And Other Compounds]	7440-69-9	Potassium Chloride (KCl)	7447-40-7
Borate(1-), Tetrafluoro-, Potassium	14075-53-7	Potassium Cyanide	151-50-8
Borax	1303-96-4	Potassium Hydroxide	1310-58-3
c.i. Pigment Green 7	1328-53-6	Potassium Nitrate	7757-79-1
Calcium Carbide	75-20-7	Potassium Oxide (K_2O)	12136-45-7
Calcium Carbonate	471-34-1	Quaternary Ammonium Compounds, Benzyl(Hydrogenated Tallow Alkyl)Dimethyl, Chlorides, Compds. With Hectorite	71011-26-2
Calcium Chloride Anhydrous	10043-52-4	Resorcinol	108-46-3
Calcium Cyanide (As Total Salt)	592-01-8	Rosin	8050-09-7
Calcium Fluoride (CaF_2)	7789-75-5	Scandium [And Other Compounds]	7440-20-2
Calcium Hydroxide	1305-62-0	Silica - Respirable (<10 µm Diameter), Cristabolite	14464-46-1
Calcium Oxide	1305-78-8	Silicate(2-), Hexafluoro-, Disodium	16893-85-9
Calcium Stearate	1592-23-0	Silicic Acid, Potassium Salt	1312-76-1
Carbon Black	1333-86-4	Silicic Acid, Sodium Salt	1344-09-8
Coke (Coal)	65996-77-2	Silicon Dioxide	7631-86-9
Cumene Hydroperoxide	80-15-9	Sodium Carbonate	497-19-8
Decanedioic Acid, Bis(1,2,2,6,6-Pentamethyl-4- Piperidinyl) Ester	41556-26-7	Sodium Hydroxide	1310-73-2
Ferric Oxide	1309-37-1	Sodium Monoxide	12401-86-4
Graphite	7782-42-5	Sodium Nitrate	7631-99-4
Hdi Polyisocyanate (Hdi-Bt & Hdi-Ic)	28182-81-2	Sodium Oxide (Na_2O)	1313-59-3
Hexamethylene Diisocyanate (Hdi) Monomer	822-06-0	Sodium Tetraborate	1330-43-4
Hydrated Silica	112926-00-8	Strontium Hydroxide	18480-07-4
Iron ion, Fe+2	15438-31-0	Strontium Oxide	1314-11-0
Iron Oxide (Fe_3O_4)	1317-61-9	Synthetic Amorphous Silica	112945-52-5
Magnesium Carbonate	546-93-0	Talc - Fibrous	14807-96-6
Magnesium Chloride	7786-30-3	Tantalum [And Other Compounds]	7440-25-7
Magnesium Oxide	1309-48-4	Titanium Dioxide	13463-67-7
Magnesium Stearate	557-04-0	Zinc Chloride	7646-85-7
Mica	12001-26-2	Zinc Stearate	557-05-1
Mullite ($Al_6O_5(SiO_4)_2$)	1302-93-8	Zircon ($Zr(SiO_4)$)	14940-68-2
N-(3-Trimethoxysilylpropyl)-Ethylenediamine	1760-24-3	Zirconium Oxide (ZrO_2)	1314-23-4
Naphtha (Petroleum), Light Steam-Cracked Arom., C5-12 Cycloalkadiene Fraction, Polymers	68527-24-2		
1,2,4,5-Tetramethylbenzene	95-93-2	Indane	496-11-7
1,3-Propanediamine, N,N-Bis[3-(Dimethylamino)Propyl]-N',N'-Dimethyl-	33329-35-0	Isobutyl Acetate	110-19-0
1-Methylimidazole	616-47-7	Isophorone Diisocyanate	4098-71-9
1-Tetradecene	1120-36-1	Isopropanol (Isopropyl Alcohol)	67-63-0
2,4,6-Tris(Dimethylaminomethyl)Phenol	90-72-2	Kerosine (Petroleum)	8008-20-6

2-Phenylisopropanol	617-94-7	Kerosine (Petroleum), Hydrodesulfurized	64742-81-0
2-Propenamide, N,N'-Methylenebis-	110-26-9	Ligroine	8032-32-4
Acetic Acid	64-19-7	Liquid Petroleum Gas	68476-85-7
Acetone	67-64-1	Methane	74-82-8
Acridine	260-94-6	Methoxy-1-Propyl Acetate, 2-	70657-70-4
Acrylic Acid	79-10-7	Methyl Ethyl Ketone (2-Butanone)	78-93-3
Alcohols, C12-15, Ethoxylated Propoxylated	68551-13-3	Methyl Ethyl Ketone Peroxide	1338-23-4
Aromatic Hydrocarbons, C9-11	70693-06-0	Methyl Formate	107-31-3
Aromatic Naphtha, Type I	64742-95-6	Methyl Isobutyl Ketone	108-10-1
Benzene, 1,1'-Methylenebis(Isocyanato-	26447-40-5	Methyl Propyl Ketone	107-87-9
Benzene, 1,2,3,5-Tetramethyl-	527-53-7	Methyl-2-Pyrrolidone, N-	872-50-4
Benzene, 1,3-Diethyl-	141-93-5	Methylene Bis(4-Cyclohexylisocyanate)	5124-30-1
Benzene, 1,4-Diethyl-	105-05-5	Mineral Spirits	See definition in O.Reg. 419/05
Benzenesulfonic Acid, 4-Methyl-	104-15-4	Naphtha (Petroleum), Heavy Alkylate	64741-65-7
Benzenesulfonic Acid, Dimethyl-	25321-41-9	Naphtha (Petroleum), Hydrodesulfurized Heavy	64742-82-1
Butane	106-97-8	Naphtha (Petroleum), Hydrotreated Heavy	64742-48-9
Butyl Acetate, N-	123-86-4	Naphtha (Petroleum), Hydrotreated Light	64742-49-0
Carbazole	86-74-8	Oxo-Heptyl Acetate	90438-79-2
Cresols	1319-77-3	Petroleum Ether	8030-30-6
Dibutyl Phthalate (Dbp, Di-N-Butyl Phthalate)	84-74-2	Petroleum Gases, Liquefied, Sweetened	68476-86-8
Diethylbenzene	25340-17-4	Poly[Oxy(Methyl-1,2-Ethanediyl)], A-Hydro-Ω- Hydroxy-, Ether With 2-Ethyl-2-(Hydroxymethyl)-1,3-Propanediol (3:1)	25723-16-4
Diethylene Glycol	111-46-6	Polyethylene Glycol Nonylphenyl Ether	9016-45-9
Diethylene Glycol Monobutyl Ether	112-34-5	Polymeric Methane Diphenyl Diisocyanate (Pmdi)	9016-87-9
Diisobutyl Phthalate	84-69-5	Propane	74-98-6
Diisononyl Phthalate	28553-12-0	Propylene Glycol Monomethyl Ether Acetate	108-65-6
Dimethyl Glutarate	1119-40-0	Pyridine, 4-(3-Phenylpropyl)-	2057-49-0
Dimethyl Phthalate (Dmp)	131-11-3	Siloxanes And Silicones, Di-Me, [[[3-[(2- Aminoethyl)Amino] Propyl]Dimethoxysilyl]Oxy]-Terminated	71750-80-6
Dimethyl Succinate	106-65-0	Siloxanes And Silicones, Di-Me, Polymers With Me Silsesquioxanes, Hydroxy-Terminated	68554-67-6
Distillates (Petroleum), Hydrotreated Light	64742-47-8	Solvent Naphtha (Petroleum), Heavy Aliphatic	64742-96-7
Distillates (Petroleum), Straight-Run Middle	64741-44-2	Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5
Ethyl Acetate	141-78-6	Solvent Naphtha (Petroleum), Light Aliph.	64742-89-8
Ethyl-3-Ethoxy Propionate	763-69-9	Solvent Naphtha (Petroleum), Medium Aliph.	64742-88-7
Ethylene	74-85-1	Stoddard Solvent	8052-41-3
Ethylene Glycol Butyl Ether (Butyl Cellosolve)	111-76-2	Tergitol 15-S-4	68131-40-8
Ethylene Glycol Diacetate	111-55-7	Triacetin	102-76-1
Ethylene Glycol Monophenyl Ether	122-99-6	Trichloroethylene (Tce)	79-01-6
Formic Acid	64-18-6	Triethylamine	121-44-8
Gamma-Butyrolactone	96-48-0	Triethylene Glycol	112-27-6
Heptane, N-	142-82-5	Trimethylbenzene, 1,2,3- (Individual Isomer Or Trimethylbenzene Mixture)	526-73-8
Hexachlorobenzene	118-74-1	Trimethylbenzene, 1,3,5- (Individual Isomer Or Trimethylbenzene Mixture)	108-67-8
Hexanedioic Acid, Dimethyl Ester	627-93-0	Trimethylolpropane Triacrylate	15625-89-5
Argon	7440-37-1	Light Oil (Coal), Coke Oven, Distn. Residues	68920-61-6
Benzoic Acid, 2-Hydroxy-	69-72-7	Linseed Oil	8001-26-1

Boric Acid	10043-35-3	Linseed Oil, Polymd.	67746-08-1
Carbon Monoxide	630-08-0	Nitrogen	7727-37-9
Coal Dust (Anthracite, Bituminous, Lignite & Seacoal)	-	Nitrogen Oxide (NO)	10102-43-9
Di-(2-Ethylhexyl) Adipate	103-23-1	Nitrogen Oxides	10102-44-0
Fatty Acids, Tall-Oil, Bu Esters	67762-63-4	Nitrous Oxide	10024-97-2
Fluorides (As HF) – Gaseous (Growing Season)	7664-39-3	Oxalic Acid	144-62-7
Fluorides (As HF) – Total (Growing Season)	7664-39-3	Phosphoric Acid	7664-38-2
Fluorides (As HF) – Total (Non-Growing Season)	7664-39-3	Poly(Oxy-1,2-Ethanediyl), A-Sulfo-Ω-(Dodecyloxy)-, Sodium Salt	9004-82-4
Hydrogen Chloride	7647-01-0	Rape Oil, Me Ester	73891-99-3
Hydrogen Peroxide	7722-84-1	Sulphuric Acid	7664-93-9