



The Steel Company of Canada

**Hamilton Works**  
**2019 Annual Toxic Substances Reduction Report**  
(O. Reg. 455/09)

Issued June 30, 2020

### **Basic Facility Information**

<b>Section 1 – Facility Information</b>	
Owner	Stelco Inc.
Facility name	Hamilton Works
Address	386 Wilcox Street
City	Hamilton
Province	Ontario
Postal Code	L8N 3T1
Spatial Coordinates (NAD83)	UTM Zone: 17 UTM Easting: 595368 UTM Northing: 4791397
<b>Section 2 – Owner’s Mailing Address</b>	
Same as above (Y / N)	Y
Address	
City	
Province	
Postal code	
<b>Section 3 – Owner’s Primary Contact Person</b>	
Name	Andrew Sebestyen
Title	Manager, Environmental Department
Phone	(905) 528-2511 ext 2547
Fax	(905)777-7658
Email address	Andrew.Sebestyen@stelco.com
<b>Section 4 – Additional Facility Information</b>	
NAICS Code	331110, 324190
NPRI ID	2984
MOE ID Number (O. Reg 127/01)	5097
# of Employees	1015
Licence # of Toxic Substance Reduction Planner	TSRP0066

### List of Toxic Substances at the Facility

<b>Compound</b>	<b>CAS No.</b>
Acetone	67-64-1
Asbestos (friable form only)	1332-21-4
Benzene	71-43-2
Carbon Monoxide	630-08-0
Chlorine - not chloride	7782-50-5
Chromium VI (and its compounds)	1333-82-0
Ethylene (C2H4)	74-85-1
Hydrogen Sulphide	7783-06-4
Lead	7439-92-1
Manganese	7439-96-5
Mercury	7439-97-6
Methanol	67-56-1
Naphthalene	91-20-3
N-Hexane	110-54-3
Nitrogen oxides (as NO2)	11104-93-1
PAH - Acenaphthylene	208-96-8
PAH - Anthracene	120-12-7
PAH - Benzo(a)anthracene	56-55-3
PAH - Benzo(a)phenanthrene (Chrysene)	218-01-9
PAH - Benzo(a)Pyrene	50-32-8
PAH - Benzo(b)fluoranthene	205-99-2
PAH - Benzo(e)pyrene	192-97-2
PAH - Benzo(g,h,i)perylene	191-24-2
PAH - Benzo(j)fluoranthene	205-82-3
PAH - Benzo(k)fluoranthene	207-08-9
PAH - Dibenzo(a,h)anthracene	53-70-3
PAH - Dibenzo(a,i)pyrene	189-55-9
PAH - Fluoranthene	206-44-0
PAH - Indeno(1,2,3-c,d)pyrene	193-39-5
PAH - Perylene	198-55-0
PAH - Phenanthrene	85-01-8
PAH - Pyrene	129-00-0
Phosphorus total	NA-22
PM10 - Particulate Matter <= 10 Microns	N/A - M09
PM2.5 - Particulate Matter <= 2.5 Microns	N/A - M10
Total Particulate Matter or TSP	N/A - M08
Selenium (and its compounds)	7782-49-2
Sulphur Dioxide	7446-09-5
Sulphuric Acid	7664-93-9
Toluene	108-88-3
Total reduced sulphur (as H2S)	NA - M14
VOC	N/A - M16
Zinc	7440-66-6

## 2019 Toxic Substance Accounting

Compound	CAS No.	Used, tonnes	Created, tonnes	Destroyed, tonnes	Released to Air, tonnes	Released to Water CitySewer, tonnes	Released to Water Outfall, tonnes	Transferred/ Recycled Offsite, tonnes	Released to Land (Disposed Offsite), tonnes	Total 'As Contained' in Product and Process, tonnes
Acetone	67-64-1	-	> 10 to 100	-	> 10 to 100	-	-	-	-	-
Asbestos (friable form only)	1332-21-4	> 100 to 1000	-	-	-	-	-	-	> 100 to 1000	-
Benzene	71-43-2	> 1000 to 10000	> 1000 to 10000	> 1000 to 10000	> 10 to 100	-	-	> 0 to 1	-	> 1000 to 10000
Carbon Monoxide	630-08-0	> 10000 to 1000000	> 100 to 1000	> 10000 to 1000000	> 100 to 1000	-	-	-	-	-
Chlorine - not chloride	7782-50-5	-	> 10 to 100	> 10 to 100	> 0 to 1	-	-	-	-	-
Chromium VI (and its compounds)	1333-82-0	> 1 to 10	-	-	-	-	-	-	> 0 to 1	> 1 to 10
Ethylene (C2H4)	74-85-1	> 1 to 10	> 10 to 100	> 1 to 10	> 10 to 100	-	-	-	-	-
Hydrogen Sulphide	7783-06-4	> 100 to 1000	> 10 to 100	> 100 to 1000	> 10 to 100	-	-	-	-	-
Lead	7439-92-1	> 10 to 100	-	-	> 0 to 1	-	-	> 10 to 100	> 0 to 1	> 1 to 10
Manganese	7439-96-5	> 1000 to 10000	-	-	> 1 to 10	-	-	> 100 to 1000	> 0 to 1	> 1000 to 10000
Mercury	7439-97-6	> 0 to 1	-	-	> 0 to 1	-	-	> 0 to 1	> 0 to 1	> 0 to 1
Methanol	67-56-1	> 10 to 100	> 1 to 10	-	> 10 to 100	-	-	-	-	-
Naphthalene	91-20-3	> 100 to 1000	> 1000 to 10000	> 100 to 1000	> 1 to 10	-	-	> 0 to 1	> 1 to 10	> 1000 to 10000
N-Hexane	110-54-3	-	> 1 to 10	-	> 1 to 10	-	-	> 0 to 1	-	> 0 to 1
Nitrogen oxides (as NO2)	11104-93-1	-	> 1000 to 10000	-	> 1000 to 10000	-	-	-	-	-
PAH - Acenaphthylene	208-96-8	> 100 to 1000	> 100 to 1000	> 100 to 1000	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Anthracene	120-12-7	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Benzo(a)anthracene	56-55-3	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Benzo(a)phenanthrene (Chrysene)	218-01-9	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Benzo(a)Pyrene	50-32-8	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	> 0 to 1	> 0 to 1	-	> 0 to 1	> 100 to 1000
PAH - Benzo(b)fluoranthene	205-99-2	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Benzo(e)pyrene	192-97-2	> 1 to 10	> 10 to 100	> 1 to 10	> 0 to 1	-	-	-	> 0 to 1	> 10 to 100
PAH - Benzo(g,h,i)perylene	191-24-2	> 0 to 1	> 1 to 10	> 0 to 1	> 0 to 1	-	-	-	> 0 to 1	> 1 to 10
PAH - Benzo(j)fluoranthene	205-82-3	> 1 to 10	> 10 to 100	> 1 to 10	> 0 to 1	-	-	-	> 0 to 1	> 10 to 100
PAH - Benzo(k)fluoranthene	207-08-9	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Dibenzo(a,h)anthracene	53-70-3	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Dibenzo(a,i)pyrene	189-55-9	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Fluoranthene	206-44-0	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Indeno(1,2,3-c,d)pyrene	193-39-5	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
PAH - Perylene	198-55-0	> 1 to 10	> 10 to 100	> 1 to 10	> 0 to 1	-	-	-	> 0 to 1	> 10 to 100
PAH - Phenanthrene	85-01-8	> 100 to 1000	> 1000 to 10000	> 100 to 1000	> 0 to 1	-	-	-	> 0 to 1	> 1000 to 10000
PAH - Pyrene	129-00-0	> 10 to 100	> 100 to 1000	> 10 to 100	> 0 to 1	-	-	-	> 0 to 1	> 100 to 1000
Phosphorus total	NA-22	> 100 to 1000	-	> 10 to 100	> 0 to 1	> 0 to 1	> 0 to 1	-	> 0 to 1	> 100 to 1000
PM10 - Particulate Matter <= 10 Microns	N/A - M09	-	> 100 to 1000	-	> 100 to 1000	-	-	-	-	> 100 to 1000
PM2.5 - Particulate Matter <= 2.5 Microns	N/A - M10	-	> 100 to 1000	-	> 100 to 1000	-	-	-	-	> 100 to 1000
Total Particulate Matter or TSP	N/A - M08	-	> 1000 to 10000	-	> 100 to 1000	-	-	-	-	> 1000 to 10000
Selenium (and its compounds)	7782-49-2	> 1 to 10	-	-	> 0 to 1	-	-	> 0 to 1	> 0 to 1	> 1 to 10
Sulphur Dioxide	7446-09-5	-	> 1000 to 10000	-	> 1000 to 10000	-	-	-	-	-
Sulphuric Acid	7664-93-9	> 10 to 100	-	> 10 to 100	-	-	-	-	> 0 to 1	-
Toluene	108-88-3	> 100 to 1000	> 100 to 1000	> 100 to 1000	> 1 to 10	-	-	> 0 to 1	-	> 100 to 1000
Total reduced sulphur (as H2S)	NA - M14	> 100 to 1000	> 10 to 100	> 100 to 1000	> 10 to 100	-	-	-	-	> 10 to 100
VOC - see speciated VOC	N/A - M16	-	> 100 to 1000	-	> 100 to 1000	-	-	-	-	-
Zinc	7440-66-6	> 10000 to 1000000	-	-	> 0 to 1	-	-	> 1000 to 10000	> 0 to 1	> 10000 to 1000000

**Comparison of Quantification (2019) to Previous Reporting Period (2018) - % Change**

Compound	CAS No.	Used	Created	Destroyed	Released to Air, tonnes	Released to Water CitySewer	Released to Water Outfall	Transferred/Recycled Offsite	Released to Land (Disposed Offsite)	Total 'As Contained' in Product and Process	Reason of % Difference in Used or Created or Released Quantities
Acetone	67-64-1		2.28		2.28						Slight increase in coke production
Asbestos (friable form only)	1332-21-4	709.69							709.69		Increased waste generation due to demolition
Benzene	71-43-2	(7.86)	(0.21)	(7.86)	47.49		(21.42)			(0.38)	Reduced flaring of coke oven gas
Carbon Monoxide	630-08-0	(7.86)	(12.35)	(7.86)	(12.35)						Reduced use of nat gas and flaring of COG
Chlorine - not chloride	7782-50-5		(49.05)	(49.05)	2.28						Reduced use of sodium hypochlorite & baywater
Chromium VI (and its compounds)	1333-82-0	(4.02)							(39.12)	(4.00)	Reduced galvanized production
Ethylene (C2H4)	74-85-1	(7.86)	0.48	(7.86)	0.48						Reduced flaring of coke oven gas
Hydrogen Sulphide	7783-06-4	(7.86)	0.48	(7.86)	0.48						Reduced flaring of coke oven gas
Lead	7439-92-1	(11.68)			(57.59)			(14.91)	135.08	(4.17)	Reduced BOF oxides shipment
Manganese	7439-96-5	1.33			(58.00)			(0.67)	59788.35	1.56	Disposal of coke screening and demolition dust
Mercury	7439-97-6	1.90			0.48			(4.89)	(0.20)	(3.75)	Slight increase in coke production
Methanol	67-56-1	120.18	2.28		75.99						Increased purchase of lute material
Naphthalene	91-20-3	(7.46)	(14.54)	(7.46)	4.82			(21.42)	0.75	(14.56)	Reduced tar production
N-Hexane	110-54-3		(16.05)		(16.13)			(21.42)		23.82	Reduced use of natural gas
Nitrogen oxides (as NO2)	11104-93-1		(10.50)		(10.50)						Reduced use of nat gas and flaring of COG
PAH - Acenaphthylene	208-96-8	(7.47)	(17.46)	(7.86)	(16.13)				0.75	(17.40)	Reduced use of nat gas and flaring of COG
PAH - Anthracene	120-12-7	(7.47)	(17.46)	(7.86)	(24.35)				0.75	(17.40)	Reduced nat gas and dust releases
PAH - Benzo(a)anthracene	56-55-3	(7.47)	(17.46)	(7.86)	(0.19)				0.75	(17.40)	Reduced tar production
PAH - Benzo(a)phenanthrene (Chryse	218-01-9	(7.47)	(17.46)	(7.86)	(0.78)				0.75	(17.40)	Reduced tar production
PAH - Benzo(a)Pyrene	50-32-8	(7.47)	(17.46)	(7.86)	0.03	(81.41)	(59.63)		0.75	(17.40)	Reduced tar production
PAH - Benzo(b)fluoranthene	205-99-2	(7.47)	(17.46)	(7.86)	(0.99)				0.93	(17.40)	Reduced tar production
PAH - Benzo(e)pyrene	192-97-2	(7.47)	(17.44)	(7.86)	(0.44)				0.75	(17.40)	Reduced tar production
PAH - Benzo(g,h,i)perylene	191-24-2	(7.47)	(17.44)	(7.86)	(0.79)				0.75	(17.40)	Reduced tar production
PAH - Benzo(j)fluoranthene	205-82-3	(7.47)	(17.45)	(7.86)	(1.12)				0.75	(17.40)	Reduced tar production
PAH - Benzo(k)fluoranthene	207-08-9	(7.47)	(17.46)	(7.86)	(2.14)				0.75	(17.40)	Reduced tar production
PAH - Dibenzo(a,h)anthracene	53-70-3	(7.47)	(17.46)	(7.86)	(3.27)				0.75	(17.40)	Reduced tar production
PAH - Dibenzo(a,i)pyrene	189-55-9	(7.47)	(17.46)	(7.86)	(10.96)				0.75	(17.40)	Reduced tar production
PAH - Fluoranthene	206-44-0	(7.47)	(17.46)	(7.86)	0.47				0.75	(17.40)	Reduced tar production
PAH - Indeno(1,2,3-c,d)pyrene	193-39-5	(7.47)	(17.46)	(7.86)	(3.10)				0.75	(17.40)	Reduced tar production
PAH - Perylene	198-55-0	(7.47)	(17.46)	(7.86)	0.14				0.75	(17.40)	Reduced tar production
PAH - Phenanthrene	85-01-8	(7.47)	(17.46)	(7.86)	1.70				0.75	(17.40)	Reduced tar production
PAH - Pyrene	129-00-0	(7.47)	(17.46)	(7.86)	0.28				0.75	(17.40)	Reduced tar production
Phosphorus total	NA-22	4.19		11.29	(58.00)	3.88	(90.06)		0.75	0.24	Higher ESFP flow reduced P conc. in discharge pt.
PM10 - Particulate Matter <= 10 Micron	N/A - M09		5.39		(15.54)					22.10	Slight increase in coke production
PM2.5 - Particulate Matter <= 2.5 Micron	N/A - M10		1.60		(2.51)					4.47	Slight increase in coke production
Total Particulate Matter or TSP	N/A - M08		7.28		(26.51)					32.64	Slight increase in coke production
Selenium (and its compounds)	7782-49-2	2.27			(58.00)			(21.42)	0.75	2.37	Slight increase in coke production
Sulphur Dioxide	7446-09-5		(9.75)		(9.75)						Reduced flaring of coke oven gas
Sulphuric Acid	7664-93-9	(19.04)		(19.05)							Reduced CRC production and H2SO4 use
Toluene	108-88-3	(7.86)	24.22	(7.86)	28.00			(21.42)		24.21	Increased light oil and coke production
Total reduced sulphur (as H2S)	NA - M14	(7.86)	14.35	(7.86)	0.48					26.03	Increased light oil and coke production
VOC	N/A - M16		(20.95)		(20.95)						Reduced venting of BER during maintenance
Zinc	7440-66-6	3.59			(58.00)			(4.48)	73.00	4.84	Disposal of coke screening and demolition dust

**Comparison of Quantification (2019) to Previous Reporting Period (2018) - Quantity Change**

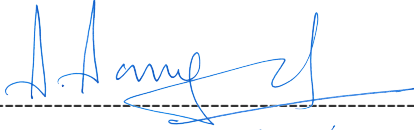
Compound	CAS No.	Used, tonnes	Created, tonnes	Destroyed, tonnes	Released to Air, tonnes	Released to Water CitySewer, tonnes	Released to Water Outfall, tonnes	Transferred/Recycled Offsite, tonnes	Released to Land (Disposed Offsite), tonnes	Total 'As Contained' in Product and Process	In (Total), tonnes	Out (Total), tonnes
Acetone	67-64-1	-	0.69	-	0.69	-	-	-	-	-	0.69	0.69
Asbestos (friable form only)	1332-21-4	184.30	-	-	-	-	-	-	184.30	-	184.30	184.30
Benzene	71-43-2	(342.06)	(12.19)	(342.04)	9.11	-	-	(0.00)	-	(21.31)	(354.26)	(354.23)
Carbon Monoxide	630-08-0	(945.88)	(23.07)	(945.88)	(23.07)	-	-	-	-	-	(968.95)	(968.95)
Chlorine - not chloride	7782-50-5	-	(12.62)	(12.62)	0.00	-	-	-	-	-	(12.62)	(12.62)
Chromium VI (and its compounds)	1333-82-0	(0.07)	-	-	-	-	-	-	(0.00)	(0.07)	(0.07)	(0.07)
Ethylene (C2H4)	74-85-1	(0.29)	0.08	(0.29)	0.08	-	-	-	-	-	(0.20)	(0.20)
Hydrogen Sulphide	7783-06-4	(14.69)	0.09	(14.69)	0.09	-	-	-	-	-	(14.59)	(14.59)
Lead	7439-92-1	(4.35)	-	-	(0.03)	-	-	(4.50)	0.02	(0.23)	(4.35)	(4.74)
Manganese	7439-96-5	41.76	-	-	(2.81)	-	-	(1.44)	0.57	45.44	41.76	41.76
Mercury	7439-97-6	0.00	-	-	0.00	-	-	(0.00)	(0.00)	(0.00)	0.00	(0.00)
Methanol	67-56-1	6.03	0.07	-	6.10	-	-	-	-	-	6.10	6.10
Naphthalene	91-20-3	(33.62)	(753.17)	(33.62)	0.12	-	-	(0.00)	0.02	(753.32)	(786.79)	(786.79)
N-Hexane	110-54-3	-	(0.29)	-	(0.29)	-	-	(0.00)	-	0.00	(0.29)	(0.29)
Nitrogen oxides (as NO2)	11104-93-1	-	(160.26)	-	(160.26)	-	-	-	-	-	(160.26)	(160.26)
PAH - Acenaphthylene	208-96-8	(8.73)	(208.71)	(8.83)	(0.00)	-	-	-	0.01	(208.62)	(217.44)	(217.44)
PAH - Anthracene	120-12-7	(6.17)	(147.53)	(6.24)	(0.00)	-	-	-	0.00	(147.46)	(153.70)	(153.70)
PAH - Benzo(a)anthracene	56-55-3	(2.83)	(67.69)	(2.86)	(0.00)	-	-	-	0.00	(67.65)	(70.52)	(70.52)
PAH - Benzo(a)phenanthrene (Chryse	218-01-9	(4.34)	(103.84)	(4.39)	(0.00)	-	-	-	0.00	(103.79)	(108.18)	(108.18)
PAH - Benzo(a)Pyrene	50-32-8	(2.72)	(65.02)	(2.75)	0.00	(0.00)	(0.00)	-	0.00	(64.99)	(67.74)	(67.74)
PAH - Benzo(b)fluoranthene	205-99-2	(2.67)	(63.91)	(2.70)	(0.00)	-	-	-	0.00	(63.88)	(66.59)	(66.59)
PAH - Benzo(e)pyrene	192-97-2	(0.11)	(2.60)	(0.11)	(0.00)	-	-	-	0.00	(2.60)	(2.71)	(2.71)
PAH - Benzo(g,h,i)perylene	191-24-2	(0.07)	(1.76)	(0.07)	(0.00)	-	-	-	0.00	(1.75)	(1.83)	(1.83)
PAH - Benzo(j)fluoranthene	205-82-3	(0.18)	(4.36)	(0.18)	(0.00)	-	-	-	0.00	(4.35)	(4.54)	(4.54)
PAH - Benzo(k)fluoranthene	207-08-9	(1.72)	(41.03)	(1.74)	(0.00)	-	-	-	0.00	(41.01)	(42.74)	(42.74)
PAH - Dibenzo(a,h)anthracene	53-70-3	(3.03)	(72.56)	(3.07)	(0.00)	-	-	-	0.00	(72.53)	(75.60)	(75.60)
PAH - Dibenzo(a,i)pyrene	189-55-9	(2.72)	(65.02)	(2.75)	(0.00)	-	-	-	0.00	(64.99)	(67.74)	(67.74)
PAH - Fluoranthene	206-44-0	(5.71)	(136.61)	(5.78)	0.00	-	-	-	0.00	(136.54)	(142.32)	(142.32)
PAH - Indeno(1,2,3-c,d)pyrene	193-39-5	(1.03)	(24.58)	(1.04)	(0.00)	-	-	-	0.00	(24.57)	(25.61)	(25.61)
PAH - Perylene	198-55-0	(0.73)	(17.36)	(0.73)	0.00	-	-	-	0.00	(17.35)	(18.09)	(18.09)
PAH - Phenanthrene	85-01-8	(8.91)	(213.07)	(9.02)	0.00	-	-	-	0.01	(212.97)	(221.98)	(221.98)
PAH - Pyrene	129-00-0	(4.78)	(114.37)	(4.84)	0.00	-	-	-	0.00	(114.32)	(119.15)	(119.15)
Phosphorus total	NA-22	8.33	-	8.17	(0.13)	0.07	(0.07)	-	0.00	0.30	8.33	8.33
PM10 - Particulate Matter <= 10 Micron	N/A - M09	-	39.54	-	(50.58)	-	-	-	-	90.12	39.54	39.54
PM2.5 - Particulate Matter <= 2.5 Micron	N/A - M10	-	8.06	-	(5.21)	-	-	-	-	13.27	8.06	8.06
Total Particulate Matter or TSP	N/A - M08	-	141.18	-	(220.28)	-	-	-	-	361.45	141.18	141.18
Selenium (and its compounds)	7782-49-2	0.06	-	-	(0.00)	-	-	(0.00)	0.00	0.06	0.06	0.05
Sulphur Dioxide	7446-09-5	-	(270.91)	-	(270.91)	-	-	-	-	-	(270.91)	(270.91)
Sulphuric Acid	7664-93-9	(21.86)	-	(21.87)	-	-	-	-	0.01	-	(21.86)	(21.86)
Toluene	108-88-3	(18.00)	117.34	(18.00)	0.33	-	-	(0.00)	-	117.01	99.33	99.33
Total reduced sulphur (as H2S)	NA - M14	(21.06)	6.02	(21.06)	0.09	-	-	-	-	5.93	(15.04)	(15.04)
VOC	N/A - M16	-	(41.11)	-	(41.11)	-	-	-	-	-	(41.11)	(41.11)
Zinc	7440-66-6	415.65	-	-	(0.10)	-	-	(69.83)	0.01	485.20	415.65	415.28

### Progress of Toxic Substances Reduction Plans

Compound	CAS No.	Objectives Per Current Version of the Plan	Targets, Tonnes	2019 Reduction, tonnes			2018 Reduction, tonnes			Plan Timeline Met?	Additional Plan?	Plan Amendment	Reduction Steps Taken vs. Plan
				Use	Creation	Discharges	Use	Creation	Discharges				
Acetone	67-64-1	to reduce creation to the extent that circumstances permit.	none										
Asbestos (friable form only)	1332-21-4	to reduce usage to the extent that circumstances permit.	none										
Benzene	71-43-2	to reduce creation to the extent that circumstances permit.	none										
Carbon Monoxide	630-08-0	to reduce creation to the extent that circumstances permit.	24.8		37.2	37.2		36.7	36.7	yes	none	none	same
Chlorine - not chloride	7782-50-5	to reduce creation to the extent that circumstances permit.	16.2		67.0			113.6		yes	none	none	same
Chromium VI (and its compounds)	1333-82-0	to reduce usage to the extent that circumstances permit.	none										
Ethylene (C2H4)	74-85-1	to reduce creation to the extent that circumstances permit.	none										
Hydrogen Sulphide	7783-06-4	to reduce creation to the extent that circumstances permit.	none										
Lead	7439-92-1	to reduce usage to the extent that circumstances permit.	none										
Manganese	7439-96-5	to reduce usage to the extent that circumstances permit.	none										
Mercury	7439-97-6	to reduce usage to the extent that circumstances permit.	0.00118	0.000127				0.000189		yes	none	none	same
Methanol	67-56-1	to reduce usage to the extent that circumstances permit.	1.15	0				0		no	none	none	same
Naphthalene	91-20-3	to reduce creation to the extent that circumstances permit.	0.0028		0.0030	0.0030		0.0030	0.0030	yes	none	none	same
N-Hexane	110-54-3	to reduce creation to the extent that circumstances permit.	0.52		0.796	0.7959		0.785	0.7852	yes	none	none	same
Nitrogen oxides (as NO2)	11104-93-1	to reduce creation to the extent that circumstances permit.	32.45		48.77	48.7693		48.11	48.1113	yes	none	none	same
PAH - Acenaphthylene	208-96-8	to reduce creation to the extent that circumstances permit.	0.7165		0.7746	0.7746		0.7746	0.7746	yes	none	Updated targets	same
PAH - Anthracene	120-12-7	to reduce creation to the extent that circumstances permit.	0.5064		0.5472	0.5472		0.5475	0.5475	yes	none	Updated targets	same
PAH - Benzo(a)anthracene	56-55-3	to reduce creation to the extent that circumstances permit.	0.2324		0.2511	0.2511		0.2512	0.2512	yes	none	Updated targets	same
PAH - Benzo(a)phenanthrene (Chrysene)	218-01-9	to reduce creation to the extent that circumstances permit.	0.3565		0.3851	0.3851		0.3854	0.3854	yes	none	Updated targets	same
PAH - Benzo(a)Pyrene	50-32-8	to reduce creation to the extent that circumstances permit.	0.2232		0.2412	0.2412		0.2413	0.2413	yes	none	Updated targets	same
PAH - Benzo(b)fluoranthene	205-99-2	to reduce creation to the extent that circumstances permit.	0.2194		0.2371	0.2371		0.2372	0.2372	yes	none	Updated targets	same
PAH - Benzo(e)pyrene	192-97-2	to reduce creation to the extent that circumstances permit.	0.0089		0.0096	0.0096		0.0097	0.0097	yes	none	Updated targets	same
PAH - Benzo(g,h,i)perylene	191-24-2	to reduce creation to the extent that circumstances permit.	0.0060		0.0065	0.0065		0.0065	0.0065	yes	none	Updated targets	same
PAH - Benzo(j)fluoranthene	205-82-3	to reduce creation to the extent that circumstances permit.	0.0150		0.0162	0.0162		0.0162	0.0162	yes	none	Updated targets	same
PAH - Benzo(k)fluoranthene	207-08-9	to reduce creation to the extent that circumstances permit.	0.1408		0.1522	0.1522		0.1523	0.1523	yes	none	Updated targets	same
PAH - Dibenzo(a,h)anthracene	53-70-3	to reduce creation to the extent that circumstances permit.	0.2491		0.2691	0.2691		0.2693	0.2693	yes	none	Updated targets	same
PAH - Dibenzo(a,i)pyrene	189-55-9	to reduce creation to the extent that circumstances permit.	0.2232		0.2412	0.2412		0.2413	0.2413	yes	none	Updated targets	same
PAH - Fluoranthene	206-44-0	to reduce creation to the extent that circumstances permit.	0.4689		0.5067	0.5067		0.5070	0.5070	yes	none	Updated targets	same
PAH - Indeno(1,2,3-c,d)pyrene	193-39-5	to reduce creation to the extent that circumstances permit.	0.0844		0.0912	0.0912		0.0912	0.0912	yes	none	Updated targets	same
PAH - Perylene	198-55-0	to reduce creation to the extent that circumstances permit.	0.0596		0.0644	0.0644		0.0644	0.0644	yes	none	Updated targets	same
PAH - Phenanthrene	85-01-8	to reduce creation to the extent that circumstances permit.	0.7314		0.7903	0.7903		0.7907	0.7907	yes	none	Updated targets	same
PAH - Pyrene	129-00-0	to reduce creation to the extent that circumstances permit.	0.0844		0.424206	0.4242062		0.424446	0.4244455	yes	none	Updated targets	same
Phosphorus total	NA-22	to reduce usage to the extent that circumstances permit.	1.75	0.237204				0.43464		yes	none	none	same
PM10 - Particulate Matter <= 10 Microns	N/A - M09	to reduce creation to the extent that circumstances permit.	121.04		55.119	55.119		57.956	57.956	yes	none	none	same
PM2.5 - Particulate Matter <= 2.5 Microns	N/A - M10	to reduce creation to the extent that circumstances permit.	121.04		6.30	6.30		6.71	6.71	yes	none	none	same
Total Particulate Matter or TSP	N/A - M08	to reduce creation to the extent that circumstances permit.	121.04		234.16	234.16		248.32	248.32	yes	none	none	same
Selenium (and its compounds)	7782-49-2	to reduce usage to the extent that circumstances permit.	none										
Sulphur Dioxide	7446-09-5	to reduce creation to the extent that circumstances permit.	0.19		0.26628			0.262688		yes	none	none	same
Sulphuric Acid	7664-93-9	to reduce usage to the extent that circumstances permit.	3.6	0				0		no	none	none	same
Toluene	108-88-3	to reduce creation to the extent that circumstances permit.	none										
Total reduced sulphur (as H2S)	NA-M14	to reduce creation to the extent that circumstances permit.	none										
VOC - see below re speciated VOC	N/A - M16	to reduce creation to the extent that circumstances permit.	none										
Zinc	7440-66-6	to reduce usage to the extent that circumstances permit.	20.2	12.55162				14.51245		yes	none	Updated targets	same

**Certification**

As of *June 30, 2020*, I, *Sujit Sanyal*, certify that I have read the records created for the purposes of section 11.2 of Ontario Regulation 455/09 (General) made under the Toxics Reductions Act, (2009) in respect of the use and creation of the toxic substances referred to above and am familiar with their contents and to my knowledge they are factually accurate.



---

**Sujit Sanyal**  
Chief Operating Officer  
Stelco Inc.