TOXICS REDUCTION ACT, O. REG. 455/09
2020RY PUBLIC REPORT

The Toxics Reduction Act and O. Reg. 455/09 came into effect on January 1, 2010. This Act requires companies with the NAICS code beginning with 31, 32, 33 or 212 and that meet NPRI and/or acetone reporting thresholds, to report their toxic substance accountings and to create/update a Toxics Reduction Plan for the reportable substances. Section 27 (1) of the Regulation requires companies to prepare/update public reports with the following information.

BASIC FACILITY INFORMATION

Name & CAS # of Substance(s)	
Sulphuric Acid	7664-93-9
Hexavalent Chromium (and its compounds)	N/A
Facility Identification and Site Address	
Company Name	Canadian Bank Note Co. Ltd.
Facility Name	Canadian Bank Note Company, Limited Richmond Division
Facility Address	Physical Address:
	145 Richmond Road, Ottawa, ON K1Z 1A1
Spatial Coordinates of Facility	441584 E, 5027261 N
Number of Employees	374
NPRI ID	10631
Primary North American Industrial Classification System Code (NAICS)	
2 Digit NAICS Code	32 – Manufacturing
4 Digit NAICS Code	3231 – Printing and Related Support Activities
6 Digit NAICS Code	323119 – Other Printing
Company Contact Information	
Facility Public Contact	Gordon McKechnie, Vice-President Corporate Affairs
	Email: gmckechn@cbnco.com
	Phone: 613-722-3421
	Fax: 613-722-3334

Plan Summary

STATEMENT OF INTENT

Canadian Bank Note Company, Limited (CBN) intends to reduce the use of Sulfuric Acid as well as reduce the creation of Hexavalent Chromium and also comply with the Chromium Electroplating, Chromium Anodizing and Reverse Etching Federal Regulations.

OBJECTIVES AND TARGETS

Canadian Bank Note Company, Limited (CBN)'s objective is to reduce the usage of Sulfuric Acid in their processes. The target is to reduce the use of Sulfuric Acid by 5 % by the end of the 2013 fiscal year. This will be achieved by reducing the concentration of Caustic washing solution from a 1 % to a 0.9 % solution of sodium hydroxide, thereby reducing the amount of sulphuric acid required to neutralize waste washing solution.

CBN's objective relative to Hexavalent Chromium is to reduce the creation of Hexavalent Chromium within its manufacturing facility. The target is to reduce the creation of Hexavalent Chromium by 1.7 % and to comply with the Chromium Electroplating, Chromium Anodizing and Reverse Etching Federal Regulations. This will be achieved by maintaining the surface tension of the chromic acid tank at ≤40 dynes/cm thereby reducing misting above the tank.

DESCRIPTION OF WHY CONTAMINANT IS USED AT THE FACILITY

Sulphuric Acid is used in a process that deals solely with the cleaning of inks from printing plates. The printing plates are cleaned using a highly alkaline solution, which needs to be neutralized before being expelled from the facility as sewage to the Sanitary Sewer. This neutralization is achieved through the addition of Sulphuric Acid to the alkaline solution (in approximately a 1 to 2 ratio).

Hexavalent chromium was used in the Chromium plating process. In this process, a chrome treatment is applied to nickel plates. The process was decommissioned in December 2017 and the process is no longer in use.

TOXIC REDUCTION OPTIONS IMPLEMENTED

Targets to reduce the use of Sulfuric Acid by 5 % and to reduce the creation of Hexavalent Chromium by 1.7 % were met in 2013.

ADDITIONAL ACTIONS TAKEN

The chromium electroplating process that creates hexavalent chromium was decommissioned in December 2017. As the process is no longer in use, an exit record has been prepared.

TOXIC SUBSTANCE REDUCTION PLANNER CONTACT INFORMATION

Planner Contact Information		
Planner Responsible for Making Recommendations	Lianne Sinclair, P.Eng., MBA, EP(CEA) *Project Engineer*	TSRP0042
	lsinclair@blumetric.ca	BluMetric Environmental Inc. 171 Victoria Street North Kitchener, ON, N2H 5C5
	Phone: 519-742-6685	
	Fax: 519-742-9810	
Planner Responsible for Certification	Rosana Bianchini *Environmental Compliance Manager*	TSRP0043
	rbianchi@cbnco.com	Canadian Bank Note Company 145 Richmond Road, Ottawa, ON, K1Z 1A1
	613-722-3421	
	613-722-6392	

CERTIFICATIONS

The plan has not been amended since it was initially developed and the certification statements from the TRA reduction plan are available for viewing at the Corporation's head office located at 145 Richmond Road, Ottawa, Ontario, Canada.

TRACKING AND QUANTIFICATION - SULPHURIC ACID

Reporting Year	Facility-wide Sulphuric Acid Quantities (tonnes)						
	Used	Created	Contained in Product	Released to Air	Off-Site Disposal	Off-Site Recycling	Reasons for Change From Previous Year
2012	>10 to 100	0	0	0	0	0	-
2013	>10 to 100	0	0	0	0	0	Changes in production level
2014	>10 to 100	0	0	0	0	0	Changes in production level
2015	>10 to 100	0	0	0	0	0	Changes in production level
2016	>10 to 100	0	0	0	0	0	Changes in production level
2017	>10 to 100	0	0	0	0	0	No reasons – quantities approximately the same
2018	>10 to 100	0	0	0	0	0	Changes in production level
2019	>10 to 100	0	0	0	0	0	Changes in production level
2020	>10 to 100	0	0	0	0	0	Changes in production level
Change from previous year (2020 : 2019)	>1 to 10 (-) 14%	-	-	-	-	-	Changes in production level

TRACKING AND QUANTIFICATION - HEXAVALENT CHROMIUM

Reporting Year	Facility-wide Hexavalent Chromium Quantities (kg)						
	Used	Created	Contained in Product	Released to Air	Off-Site Disposal	Off-Site Recycling	Reasons for Change From Previous Year
2012	>100 to 1000	> 100 to 1000	0	4.478	234.867	0	-
2013	>100 to 1000	> 10 to 100	0	4.478	4.920	0	Changes in production level
2014	>100 to 1000	> 10 to 100	0	4.478	15.129	0	Changes in production level
2015	>100 to 1000	> 10 to 100	0	4.478	20.500	0	Changes in production level
2016	>100 to 1000	> 10 to 100	0	4.478	44.306	0	Changes in production level
2017	>100 to 1000	> 10 to 100	0	4.478	271.183	0	In 2017, the number of plates produced by the electroplating process decreased. The electroplating process was decommissioned and the entire contents from the tank were transferred off-site for treatment.
Change from previous year (2018 : 2017)	0 (-) 100%	0 (-) 100%	0	0 (-) 100%	0 (-) 100%	0	In 2018 the process was not in use.

Used, created and contained in product can be expressed in the following ranges:

- > 0 to 1
- > 1 to 10
- > 10 to 100
- > 100 to 1,000
- > 1,000 to 10,000
- > 10,000 to 100,000
- > 100,000 to 1,000,000

ANNUAL REPORT CERTIFICATION STATEMENT

As of June 1, 2021, I, Ronald Arends, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario regulation 455/09 (General) made under the Act.

- Sulphuric Acid (7664-93-9)

Ronald Arends
President
Canadian Bank Note Company, Limited

Signed copy available for viewing at the Corporation's head office located at 145 Richmond Road, Ottawa, Ontario, Canada