

Viasystems Toronto Inc.

Toxics Reduction Plan Summary

Phase II

(Prepared in Compliance with the Toxics Reduction Act, 2009
& Ontario Regulation 455/09)

December 2013

BASIC FACILITY INFORMATION

Substance name(s) & CAS No.(s)	Substance Name • Nitric Acid • Ammonia	CAS No. 7697-37-2 7664-41-7
NPRI ID No.	11606	
O.Reg 127/01.	-	
MOE HWIN	ON0761503	
Legal name of owner	Viasystems Toronto, Inc.	
Trade name of owner	-	
Legal name of operator (if different)	-	
Trade name of operator (if different)	-	
Mailing address of owner	8150 Sheppard Avenue East, Toronto, ON M1B 5K2	
Number of Employees	485	
Mailing address of operator (if different)	-	
2-digit NAICS code	33	
4-digit NAICS code	3344	
6-digit NAICS code	334410	
Spatial coordinates (UTM & NAD83)	Latitude: 43.8031 Longitude: -79.1952 Datum: 1983	
Parent Company (if applicable)	USA company	
Legal name	-	
Mailing address (if different from facility)	-	
Percent owned by parent company	-	
Canada Customs & Revenue Agency No.	-	
Mailing address	-	

TECHNICAL CONTACT

Name	Mark Scruton
Position	Director, EHSS
Phone number	(416) 208-2127
Email	mark.scruton@viasystems.com
Mailing address (if different)	-

PERSON WHO COORDINATED THE PLAN

Name	Mohammad Zamani
Position	EHS Technician
Phone number	(416) 208-2100
Email	selvan.ponniah@viasystems.com
Mailing address (if different)	-

PERSON WHO PREPARED THE PLAN

Name	Mark Scruton and Mohammad Zamani
Position	Director, EHSS and EHS Technician
Phone number	(416) 208-2127
Email	mark.scruton@viasystems.com
Mailing address (if different)	-

HIGHEST RANKING EMPLOYEE AT THE FACILITY

Name	Jon Pereira
Position	General Manager
Phone number	416-208-2100
Email	jon.pereira@viasystems.com
Mailing address (if different)	-

PLAN SUMMARY FOR NITRIC ACID

Substance name (s) and CAS No.(s):	Substance Name	CAS No.
	Nitric Acid (HNO ₃)	7697-37-2
Statement of Intent	Viasystems intends to reduce the use of Nitric acid by implementing toxic reduction options while not adversely impacting employee safety, product quality or manufacturing capacity. HNO ₃ is not created on site.	
Statement of Objectives	Viasystems intends to reduce HNO ₃ but additional research and testing is required prior to stating any commitment	
Toxic Substance Accounting Records (methods used to track & quantify, quantifications, input output balance, etc.)	Refer to Section 4 & Appendix B of the report entitled, "Toxics Reduction Assessment Report - Phase II, December 2013"	
Toxic Substance Reduction Plan (cost estimates, options to reduce, reduction estimates, technical & economic feasibility analyses, etc.)	Refer to Section 4 of the report entitled, "Toxics Reduction Assessment Report - phase II, December 2013"	

Implementation Plan of Options

Implementation Option (Category I)	Eliminate the use of 15A cleaner
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Pilot Test in 2016 Implement and commissioning in 2017, pending successful results.
Estimated Reduction	0.08 MT
Dates for achieving reduction	2018
Implementation Option (Category III)	Switch to S4 Cleaner
Intent to implement option	Viasystems has implemented this option in 2013
Rationale for not implementing	
Implementation Steps & timeline	Viasystems has implemented these options in 2013
Estimated Reduction	1.4 MT
Dates for achieving reduction	2013

Implementation Option (Category III)	Reduce Sn Plating Thieving Boarder
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Pilot Test in 2015 Implement and commission in 2017, if successful
Estimated Reduction	1.5 MT
Dates for achieving reduction	2018
Implementation Option (Category IV)	Install evaporation reduction balls in Nitric Acid rack stripper
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Pilot Test in 2015 Implement and commission in 2017, if successful
Estimated Reduction	0.1 MT
Dates for achieving reduction	2018
Implementation Option (Category IV)	Switch to Low Nitric Acid concentration rack stripper
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Pilot Test in 2015 Implement and commission in 2017, if successful
Estimated Reduction	0.12 MT
Dates for achieving reduction	2018
Implementation Option (Category V)	Install Diffusion Dialysis unit to recovery Nitric Acid
Intent to implement option	Viasystems intends to pilot test this option.
Rationale for not implementing	
Implementation Steps & timeline	Pilot Test on Cu/Sn Rack stripper in 2015 Pilot Test on Ni tank stripper in 2015 Implement full scale unit for testing 2016 Implement and commission industrial unit 2017-18
Estimated Reduction	6.3 MT
Dates for achieving reduction	2018

Implementation Option (Category VI) Extend rack/tank stripper bath life inventory via lab testing
Intent to implement option Viasystems has implemented this option in 2013
Rationale for not implementing
Implementation Steps & timeline Viasystems has implemented this option in 2013
Estimated Reduction 1.1 MT
Dates for achieving reduction 2013

Implementation Option (Category VII) Ongoing training and scrap reduction projects (DCN, IPM, COGZ, 5S, LPA).
Intent to implement option Vary Sn plating thickness per product design to reduce scrap
Viasystems is implementing this option
Rationale for not implementing
Implementation Steps & timeline Continue to complete annual training and scrap reduction projects using the various management systems
Estimated Reduction 0.19 MT
Dates for achieving reduction 2018

PLAN SUMMARY FOR AMMONIA

Substance name (s) and CAS No.(s):	Substance Name	CAS No.
	Ammonia (NH3)	7664-41-7
Statement of Intent	Viasystems intends to reduce the use of Ammonia by implementing toxic reduction options while not adversely impacting employee safety, product quality or manufacturing capacity. Ammonia is not created on site.	
Statement of Objectives	Viasystems intends to reduce NH3 but additional research and testing is required prior to stating any commitment	
Toxic Substance Accounting Records (methods used to track & quantify, quantifications, input output balance, etc.)	Refer to Section 5.0 & Appendix B of the report entitled, "Toxics Reduction Assessment Report - Phase II, December 2013"	
Toxic Substance Reduction Plan (cost estimates, options to reduce, reduction estimates, technical & economic feasibility analyses, etc.)	Refer to Section 5.0 of the report entitled, "Toxics Reduction Assessment Report - Phase II, December 2013"	

Implementation Plan of Options

Implementation Option (Category III)	Low ammonia formulation
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Resolve raw material logistics. Install second SES line; Pilot Test; Full Production Test; Commission second line; Convert main SES line prior to 2018
Estimated Reduction	7.7 MT
Dates for achieving reduction	2018

Implementation Plan of Options

Implementation Option (Category IV)	Modify Etcher Replenisher Tank
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Work with OEM to design required module(s). Design/modify PLC interface Add to Corporate budget for 2015 Pilot Test Commission Install in 2015
Estimated Reduction	7.5 MT
Dates for achieving reduction	2015

Implementation Option (Category VI)	Modify NH3 Tote Chemical Feed Line
Intent to implement option	
Rationale for not implementing	Viasystems intends to perform additional research and testing prior to finalizing its commitment
Implementation Steps & timeline	Design required piping. Design all necessary safety devices Add to Corporate budget for 2015 Pilot Test Commission Install in 2015
Estimated Reduction	0.95 MT
Dates for achieving reduction	2015

Implementation Option (Category VII)	Ongoing training and scrap reduction projects (DCN, IPM, COGZ, 5S, LPA)
Intent to implement option	Viasystems is implementing this option
Rationale for not implementing	
Implementation Steps & timeline	Continue to complete annual training and scrap reduction projects using the various management systems
Estimated Reduction	0.42 MT
Dates for achieving reduction	2018

Toxics Reduction Planner Certification

As of 12/13/2013, I, Mark Scruton, certify that I am familiar with the processes at Viasystems Toronto, Inc that use or create the toxic substances referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4(1) of the Toxics Reduction Act, 2009 that are set out in the plan dated December 2013 and that the plan complies with that act and Ontario Regulation 455/09 (General) made under that Act.

- Nitric acid and Ammonia

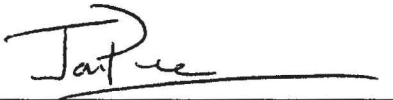
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Planner: Mark Scruton
License No.: TSRP0231

Highest Ranking Employee Certification

As of 12/13/2013, I, Jon Pereira, 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 that Act.

- Nitric acid and Ammonia

X 

Jon Pereira
General Manager



**TOXIC SUBSTANCE REDUCTION PLANNER LICENCE /
LICENCE DE PLANIFICATEUR DE LA RÉDUCTION DES
SUBSTANCES TOXIQUES**

Mark Scruton

has met the requirements under Ontario Regulation 455/09 made under the Toxics Reduction Act, 2009 for the Toxic Substance Reduction Planner Licence. / a satisfait aux exigences relatives à la licence de planificateur de la réduction des substances toxiques du Règlement de l'Ontario 455/09 pris en application de la *Loi de 2009 sur la réduction des toxiques*.

Expiry Date:

September 30, 2017

Date d'expiration:

TSRP0231

License No.

Permis n°

D. Salamon

Director
Directeur(trice)