Toxic Substance Reduction Plan Summary

Linex Manufacturing, Division of Linamar Corporation





BASIC FACILITY INFORMATION

Name & CAS # of Substance	Chromium	N/A	
	Copper	N/A	
	Manganese	N/A	
	Nickel	N/A	
	Zinc	N/A	
F	acility Identification and Site Addr	ess	
Company Name	Linamar Corporation		
Facility Name	Linex Manufacturing		
Facility Address	Physical Address	Mailing Address (if different):	
	355 Massey Road, Guelph, ON N1K 1B2	Same as physical address	
Spatial Coordinates of Facility (UTM)	17T 555924 4820612		
Number of Employees	393		
NPRI ID	007125		
Ontario MOE ID Number	6361		
	Parent Company (PC) Information	1	
Name & Address	Linamar Corporation 287 Speedvale Ave. West Guelph, ON N1K 1C5		
Percent Ownership	100%		
Business Number	103333662		
Primary North Ar	nerican Industrial Classification Sys	stem Code (NAICS)	
2 Digit NAICS Code	33		
4 Digit NAICS Code	3361		
6 Digit NAICS Code	336110 - Automotive and Light-Duty Motor Vehicle Manufacturing		
	Facility Contact Information		
Public Contact	Tim Feil, General Manager Phone: 519-837-0880, x.600 Fax: 519-837-0832		
	<u>Tim.Feil@linamar.com</u>	Same address as facility	
Technical Contact	Barb Herron, Environmental Coordinator Phone: 519-837-0880, x.252 Fax: 519-837-0832		
	Barb.Herron@linamar.com	Same address as facility	

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Plan Coordinator Contact	Jonathan Holland, Project Engineer Phone: 519-837-0880, x.336 Fax: 519-837-0832				
Person who Prepared the Plan	Jonathan.Holland@linamar.com Jonathan Holland, Project Engineer Phone: 519-837-0880, x.336 Fax: 519-837-0832	Same address as facility			
	Jonathan.Holland@linamar.com	Same address as facility			
Highest Ranking Employee	Tim Feil, General Manager Phone: 519-837-0880, x.600 Fax: 519-837-0832				
	Tim.Feil@linamar.com	Same address as facility			
Parent Company Contact Information					
Public Contact	Melissa Kaufman, Occupational Health & Safety Manager Phone: 519-836-7550, x.2055 Fax: 519-836-4478				
	Melissa. Kaufman@linamar.com	Same address as parent facility			
Certified Planner Contact Information					
Licensed Planner	Jonathan Holland, Project Engineer Phone: 519-837-0880, x.336 Fax: 519-837-0832	License Number TSRP0244			
	Jonathan.Holland@linamar.com	Same address as facility			

STATEMENT OF INTENT

Linex Manufacturing is committed to playing a leadership role in protecting the environment. Wherever feasible, Linex will work to eliminate or reduce the use, creation and discharge of chromium, copper, manganese, and nickel in full compliance with all Provincial and Federal Regulations. This will help Ontario be well positioned to complete in an increasingly green global economy.

PLAN OBJECTIVES

The objectives of this plan is to reduce the use and creation of the prescribed toxic substances listed above using methods which are technically and economically feasible while providing a



benefit to the environment. The goal is to reduce the use and recycling of chromium, copper, manganese, nickel, and zinc by 5% within 2-3 years of completing this plan.

DESCRIPTION OF SUBSTANCES

Linex Manufacturing is a world leading manufacturer of precision machined metallic components for transmissions in the automotive industry. Linex provides made to print machined parts to its customers by machining raw aluminum and iron castings to drawing specifications. The prescribed toxic substances chromium, copper, manganese, nickel, and zinc are constituents of the raw material purchased and received by Linex Manufacturing. These substances are pass-through substances from raw material to the finished product. Linex Manufacturing purchases and receives raw material in the form of 206 Aluminum, 354 Aluminum, 355 Aluminum, 356 Aluminum, 380 Aluminum, G3000 Gray Iron, D5506 Ductile Iron, and various grades of steel alloys.

TOXIC SUBSTANCE REDUCTION OPTIONS TO BE IMPLEMENTED

The following options have been identified for implementation to reduce the use, and recycling of chromium, copper, manganese, and nickel:

- Reduce machining stock on raw material
- Improve machining processes to reduce scrap
- Improve supplier processes to reduce returned material
- Implement ERP system to improve inventory management

REDUCTION ESTIMATES

Reducing machining stock varies from part to part with an estimated range of 1-3.5% reduction for chromium, copper, manganese, nickel, and zinc. This would equate to a recycling reduction range of 230.14-805.49 kg of chromium, 371.01-1298.53 kg of copper, 172.72-604.52 kg of manganese, 232.33-813.16 kg of nickel, and 91.75-321.13 kg of zinc.

Process improvement/modification to reduce scrap to corporate targets would result in an estimated 1% reduction of recycled material. This would reduce the recycled quantities of chromium, copper, manganese, and nickel by 230.14 kg, 371.01 kg, 172.72 kg, 232.23 kg, 91.75 kg respectively.

Process improvement/modification at the suppliers to achieve corporate targets would result in a reduction in the use of raw material and an estimated 1.2% reduction in the quantity of material recycled. This would reduce the quantity recycled for chromium, copper, manganese, nickel, and zinc by 880.88 kg, 2110.97 kg, 651.19 kg, 899.42 kg, and 110.10 kg respectively.



Implementing an ERP system to manage inventory would result in an estimated 3-5% reduction in the use of raw material at the facility. This would result in the reduction in use of 2202.21-3670.35 kg of chromium, 5277.43-8795.715 kg of copper, 1627.98-2713.30 kg of manganese, 2248.54-3747.57 kg of nickel, and 1612.76-2687.94 kg of zinc.

Linex Manufacturing estimates the reduction in recycling of chromium, copper, manganese, nickel, and zinc to be approximately 5% within 2-3 years of preparing this plan or 1150.70 kg, 1855.05 kg, 863.60 kg, 1161.66 kg, and 458.76 kg respectively.

Linex Manufacturing estimates the reduction in the use of the toxic substances to be approximately 3-5% within 2-3 years of preparing this plan. This would result in the reduction in use of 2202.21-3670.35 kg of chromium, 5277.43-8795.715 kg of copper, 1627.98-2713.30 kg of manganese, 2248.54-3747.57 kg of nickel, and 1612.76-2687.94 kg of zinc.

Implementation will occur in stages where possible with the earliest implementation beginning in Q1 2013.

Please note reduction estimates are based on the same product mix and sales volume as 2011 data.

PLAN SUMMARY STATEMENT

This plan summary accurately reflects the content of the toxic substance reduction plan for chromium, copper, manganese, nickel, and zinc prepared by Linex Manufacturing, dated December 10, 2012.



COPY OF CERTIFICATIONS

CERTIFICATION BY HIGHEST RANKING EMPLOYEE

As of December 10th, 2012, I, Tim Feil certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under the act.

Chromium, Copper, Manganese, Nickel, Zinc

Tim Feil General Manager

Linex Manufacturing

Date

Da 10/12

CERTIFICATION BY LICENSED PLANNER

As of December 10th, 2012, I, Jonathan Holland certify that I am familiar with the processes at Linex Manufacturing 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 10th, 2012 and that the plan complies with that act and Ontario Regulation 455/09 (General) made under the act.

Chromium, Copper, Manganese, Nickel, Zinc

Jonathan Holland [Planner License # TSRP0244]

Project Engineer/Toxic Substance reduction Planner

Linex Manufacturing

Date