

Ontario Toxics Reduction Act Plan Summary Revised August 2013

Facility Details

Trade Name: METAL KOTING

Facility /Legal Name: Continuous Colour Coat Ltd.

1430 Martin Grove Road Rexdale, Ontario, M9W 4Y1

UTM (NAD83) Coordinates: 17T 614122.26 4841383.36

NAICS 2 digit Code: 33 – Manufacturing

NAICS 4 digit Code: 3328 – Coating, Engraving, Heat Treating and Allied Activities

NAICS 6 digit Canada Code: 332810 - Coating, Engraving, Heat Treating and Allied Activities

NPRI (National Pollutant Release Inventory) ID: 0000004527

Full Time Employees: 127

| Public Contact | Contact Information |
|---------------------------------------|---|
| Chris Butt | (416)743-7980 ext 279 |
| Manager, Technical Services | Metal Koting, Continuous Colour Coat Ltd. |
| | 1430 Martin Grove Road, |
| | Rexdale, ON M9W 4Y1 |
| Person Who Prepared the Report | Contact Information |
| Marika Toyama | (416)743-7980 ext 243 |
| Project Engineer | Metal Koting, Continuous Colour Coat Ltd. |
| | 1430 Martin Grove Road, |
| | Rexdale, ON M9W 4Y1 |

List of Toxic Substances at the Facility for Which Plans Have Been Prepared

| CAS Number | Substance Name |
|------------|--|
| NA - 19 | Hexavalent chromium(and its compounds) |
| NA - 08 | Lead (and its compounds) |
| 7664-93-9 | Sulphuric acid |
| 108-88-3 | Toluene |
| 1330-20-7 | Xylene (all isomers) |
| NA - 14 | Zinc (and its compounds) |



<u>Hexavalent Chromium –</u> <u>Ontario Toxics Reduction Act Plan Summary</u>

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to reduce the amount of Hexavalent Chromium used at our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to reductions in Hexavalent Chromium usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

Hexavalent Chromium is used as a component of Paints used to paint metal substrate. It is also used as a component of chemical passivation treatment on metal.

Description of Options to be Implemented

Material or Feedstock Substitution

• Substitute paint containing less chrome for paint containing more chrome.

Estimated Reduction:

Use: 50 kg/year 1.2 %

Contained in Product: 44 kg/year 1.6 % Off-site Recycling: 5.57 kg/year 9.1 %

Timeline: 5 years

Material or Feedstock Substitution

• Collaborating with paint suppliers to reduce the Hexavalent chrome content in certain paints.

Estimated Reduction:

Use: 100 kg/year 2.3 %

Contained in Product: 88 kg/year 3.2 % Off-site Recycling: 11.7 kg/year 4.2 %

Timeline: 5 years



Product Design or Reformulation

• Reduce the range of specified coating weight.

Estimated Reduction:

Use: 50 kg/year 1.2%

Contained in Product: 14 kg/year 0.51 %

Timeline: 2 years

Equipment or Process Modifications

• Replace spray nozzles for preceding treatment stage with different type less prone to plugging, in order to improve rinsing and avoid contamination of chrome containing treatment stage. Install a pressure transducer on the rinse line to indicate if nozzles are blocked and require maintenance.

Estimated Reduction:

Use: 240 kg/year 5.6 %

Timeline: 1 year

Spill or Leak Prevention

• Improved cleaning of chemical coater level sensor.

Estimated Reduction:

Use: 0.6 kg/year 0.01%

Timeline: 1 year

The plan summary for Hexavalent Chromium accurately reflects the Toxics Reduction plan for Hexavalent Chromium.



<u>Sulphuric Acid -</u> <u>Ontario Toxics Reduction Act Plan Summary</u>

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to reduce the amount of Sulphuric Acid used at our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to reduce the Sulphuric Acid usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

Sulphuric Acid is used to make up the plating solution along with Zinc Oxide, which is used to place Zinc onto steel. Sulphuric Acid is also used in the Pickling Stage to remove impurities from the surface of the steel.

An additional use of Sulphuric Acid is in the Waste Treatment area, where it is used for pH control in the Chrome Reduction System and to pre-neutralize waste coming into the waste treatment area.

Description of Options to be Implemented

Equipment or Process Modifications -Modified Equipment, Layout or Piping

• Change the type of pH probe used in the Zinc Dissolution system.

Estimated Reduction:

Use: 0.18 tonnes/year 0.13%

Timeline: 1 year

Spill or Leak Prevention

• Implement a check system for the manually operated water valve to the plating tank, to prevent overflowing the tank and losing plating solution.

Estimated Reduction:

Use: 0.5 tonnes/year 0.37 %

Timeline: 1 year



On-site Re-use, Recycling or Recovery

• Implement Acid Purification Unit to remove impurities from Sulphuric Acid used in the Pickle stage of pre-treatment on the Electrogalvanizing Line. The purified Sulphuric Acid will be reused on the plating line.

Estimated Reduction:

Use: 50 tonnes/year 37%

Timeline: 5 years

The plan summary for Sulphuric Acid accurately reflects the Toxics Reduction plan for Sulphuric Acid.

Zinc-

Ontario Toxics Reduction Act Plan Summary

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to efficiencies in the amount of Zinc used in our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to find efficiencies in the Zinc usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

Zinc is plated onto steel coils on our Electrogalvanizing Line. Zinc is also present as a component of chemical treatments used for passivation of metal coils both on the Electrogalvanizing Line and on the Paint Line (which produces painted metal coils)

Description of Options to be Implemented

Equipment or Process Modifications
-Modified Equipment, Layout or Piping

• Improve tension control on the Electrogalvanizing Line which will lead to less line stops, and defects due to tension control problems such as nicks and scratches.



Estimated Reduction:

Use: 1.47 tonnes/year 0.5 %

Off-Site Disposals: 0.15 tonnes/year 0.5 %

Timeline: 5 years

Spill or Leak Prevention

• Implement checks on manual water valve to plating tank to avoid overflowing the tank.

Estimated Reduction:

Use: 1 tonnes/year 0.34 %

Off-site Disposals: 0.10 tonnes/year 0.33 %

Timeline: 1 year

Spill or Leak Prevention

-Implemented inspection or monitoring program of potential spill or leak sources

• Create Inspection/Clean out procedure/standard for improved repairs/cleaning of Zinc Oxide Bags to prevent leaks and punctures.

Estimated Reduction:

Use: 0.1 tonnes/year 0.03 %

Timeline: 1 year

Good Operator Practice or Training

• Implement standard operating procedures for training to reduce line stops.

Estimated Reduction:

Use: 0.8 tonnes/year 0.27 %

Off-Site Disposals: 0.08 tonnes/year 0.27 %

Timeline: 2 years

The plan summary for Zinc accurately reflects the Toxics Reduction plan for Zinc.



Toluene -

Ontario Toxics Reduction Act Plan Summary

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to reduce the amount of Toluene used in our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to reduce the Toluene usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

The majority of Toluene is used as a component of Wash Up Solvent, which is used to clean equipment and floors after and between painting set-ups. Toluene is also used as a component of Paints which are used to paint a metal substrate on the Paint Line.

Description of Options to be Implemented

Material or Feedstock Substitution

• Reduce the amount of Toluene contained in our Wash-Up Solvent used for cleaning.

Estimated Reduction:

Use: 6.78 tonnes/year 44.9 %

Releases to Air: 0.003 tonnes/year 14 %

Transfers Off Site for Recycling: 6.78 tonnes/year 51.5%

Timeline: 1 year

Good Operator Practice or Training

-Improved Maintenance Scheduling, Record Keeping or Purchasing Techniques

• Standardize and improve Paint Line cleaning procedure to minimize amount of waste wash up solvent.

Estimated Reduction:

Use: 0.34 tonnes/year 2.3 %

Timeline: 3 years

The plan summary for Toluene accurately reflects the Toxics Reduction plan for Toluene.



Xylene -

Ontario Toxics Reduction Act Plan Summary

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to reduce the amount of Xylene used in our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to reduce the Xylene usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

Xylene is used as a component of Paints which used to paint a metal substrate on the Paint line. Xylene is used as a viscosity adjuster, additive to paints on the Paint Line. Xylene is also used as a component of Wash Up Solvent, which is used to clean Equipment and floors after and between painting set-ups.

Description of Options to be Implemented

Material or Feedstock Substitution -Substituted Materials

• Reduce the amount of Xylene contained in Wash-Up Solvent by substituting other materials in its place.

Estimated Reduction:

Use: 0.98 tonnes/year 1.2 %

Recycling Off Site: 0.95 tonnes/year 5.7 %

Timeline: 1 year

Material or Feedstock Substitution

• Reduce the use of Xylene as a reducer solvent by using heat to obtain viscosity target.

Estimated Reduction:

Use: 0.12 tonnes/year 0.14 %



Timeline: 2 years

Good Operator Practice or Training

 Make Operators aware of paint costs to be more conscientious of over use and scrapping of paint unnecessarily.

Estimated Reduction:

Use: 0.05 tonnes/year 0.1 %

Timeline: 1 years

Good Operator Practice or Training

-Improved Maintenance Scheduling, Record Keeping or Purchasing Techniques

• Standardize and improve Paint Line cleaning procedure to reduce the consumption and disposal of Wash Up Solvent.

Estimated Reduction:

Use: 0.39 tonnes/year 0.5%

Timeline: 3 years

The plan summary for Xylene accurately reflects the Toxics Reduction plan for Xylene.

Lead -

Ontario Toxics Reduction Act Plan Summary

Statement of Intent To Reduce

At Metal Koting, Continuous Colour Coat Ltd, the preservation and protection of our natural environment is a primary consideration in our decision making. We will strive to reduce the amount of Lead used in our plant where feasible with consideration to reducing our environmental impact.

Objectives

Metal Koting - Continuous Colour Coat Limited is committed to maintaining a leadership role as a manufacturer of specialty coated metal for customers in a range of industries. In our commitment to the environment, Metal Koting will strive to find efficiencies regarding lead usage in our plant as part of this Toxics Reduction plan.

Description of why the toxic substance is Used or Created

Lead is also used as a component of Lead-Silver Anodes used on the Electrogalvanizing Line. Lead is also present as an impurity in Zinc Oxide which is used to make up the plating solution.



Description of Options to be Implemented

Equipment or Process Modifications

• Improved tension control on the Electrogalvanizing Line will lead to less line stops and anode degradation due to tension control problems such as nicks, cuts and scratches.

Estimated Reduction:

Use: 47 kg/year 5%

Off Site Disposals: 34 kg/year 5%

Timeline: 5 years

Good Operator Practice or Training

-Improved Maintenance Scheduling, Record Keeping or Purchasing Techniques

• Improve the standardization of console operator training to improve consistency and reduce line stops.

Estimated Reduction:

Use: 40 kg/year 4.5 %

Off-Site Disposals: 31 kg/year 4.5%

Timeline: 2 years

The plan summary for Lead accurately reflects the Toxics Reduction plan for Lead.



Toxics Reduction Plan: Plan Re-Submitted After December 31, 2013

Highest Ranking Employee:

Rationale:

Upon examination of the spreadsheet used to calculate the data contained in the December 21st, 2012 edition of the Toxics Reduction Plan, errors were found. These errors have since been corrected and the plan updated accordingly.

I have read the plan, am familiar with its contents and to my knowledge the plan is factually accurate and, with exception of the certification falling after the regulatory deadline, the Plan meets all other requirements of the act and regulation.

Kevin McCallum

Metal Koting - Continuous Colour Coat Ltd.

President and CEO

Toxic Substance Reduction Planner:

I am familiar with the processes at Metal Koting, Continuous Colour Coat Ltd, I agree with the estimates of reduction for those options that will be implemented and, with the exception of the certification of the plan falling after the regulatory deadline, the Plan meets all other requirements of the act and regulation.

any 21/2013

Marika Toyama Marika Toyama

Project Engineer

Metal Koting - Continuous Color Coat Ltd.

Planner License No. TSRP0168



Re: Toxics Reduction Plan Update August 21, 2013, to previous version December 21, 2012 CERTIFICATION BY HIGHEST RANKING EMPLOYEE

As of August 21, 2013 I, Kevin McCallum, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Hexavalent Chromium

Lead

Sulphuric Acid

Toluene

Xylene

Zinc

Kevin McCallum

President and CEO

Metal Koting - Continuous Colour Coat Ltd.

Aug 2//13 Date

CERTIFICATION BY LICENSED PLANNER

As of August 21, 2013, I, Marika Toyama certify that I am familiar with the processes at Metal Koting – Continuous Colour Coat Ltd. 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 plans dated August 21, 2013 and that the plans comply with that Act and Ontario Regulation 455/09 (General) made under that Act.

 Hexavalent Chromium
 (August 21, 2013)

 Lead
 (August 21, 2013)

 Sulphuric Acid
 (August 21, 2013)

 Toluene
 (August 21, 2013)

 Xylene
 (August 21, 2013)

 Zinc
 (August 21, 2013)

Marika Toyama

Project Engineer

Marka Toyame

Metal Koting - Continuous Color Coat Ltd.

Planner License No. TSRP0168

ang 21, 2013