YACHIYO OF ONTARIO MFG., INC. 120 Mapleview Drive West, Barrie, Ontario L4N 9H6

# Toxic Substance Reduction Plan Summary Public Report

Phase 1 : Manganese

Ver. 1

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**Toxics Reduction Act & Ontario Regulation 455/09** 

Ver. 1

March 12<sup>th</sup>, 2014

## **Toxic Substance Reduction Plan Summary**

As required under the Toxics Reduction Act and Ontario Regulation 455/09

## Phase 1 : Manganese

#### **Basic Facility Information**

Yachiyo of Ontario Mfg. Inc. (YOM) is a Tier 1 automotive supplier that assembles structural auto parts and fuel tanks for the automotive industry. The main facility activities include stamping, welding, assembly, shipping, and receiving. Other activities include the use of an emergency power diesel engine generator. The Facility is approximately 9,680 square metres in size on a site approximately 39,300 square metres. YOM operates 24 hours per day, 5 days per week, 48 weeks per year, with statutory holidays and occasional shutdown periods. The inclusion of metal elements is vital to the effectiveness and functionality of YOM's steel products and necessitates the presence and use of the prescribed toxic substance; Manganese (TRA Phase 1). Yachiyo is an ISO 14001 certified manufacturer and takes initiative to seek new methods and practices in Environmental Management and Product design, through programs like Yachiyo Best Quality (YBQ), Non-Destructive Testing (NDT), Countermeasure Request Forms (CRFs) and Just-in-Time (JIT) delivery which ultimately result in reductions of toxic substance use.

#### **Facility Identification and Address**

Facility Name: Yachiyo of Ontario Mfg. (YOM)
Location: 120 Mapleview Drive West, Barrie, Ontario L4N 9H6
NPRI Identification Number: 007149
Two Digit NAICS Code: 33
Four Digit NAICS Code: 336390 - Other Motor Vehicle Parts Mfg. & 336370 - Motor Vehicle Stamping Facility.
Number of Full-time Employees: ~ 346
UTM Spatial Coordinates: NAD 83 Zone 17T 603870 mE, 4909719 mN (SE corner) 603870 mE, 4909771 mN (front door)

## **Operator Name**

Name: Yachiyo of Ontario Manufacturing, Inc. Address: 120 Mapleview Drive West, Barrie, Ontario L4N 9H6 Phone Number: (705) 734-1688 Fax Number: (705) 719-7535

#### **Toxic Substance for Which Facility Must Prepare Plan**

Substance 1: Manganese CAS Number: 7439-96-5 (TRA Phase 1)

## **Public Contact**

Name: James Miller, Environmental, Health & Safety Advanced Technical Staff Address: 120 Mapleview Drive West, Barrie, Ontario L4N 9H6 Phone Number: (705) 734-1688 ext. 352 Fax Number: (705) 719-7535 E-mail: jmiller@yachiyo.on.ca

#### Statement of Intent

Manganese is present in sheet steel used by YOM in the production of automotive parts. The substance is an essential element in the steel. We explain why a reduction in Manganese use does not fit with the facility purposes, as well as defend why reducing the substance disposal and air emissions is impractical. This facility does not create or transform Manganese and therefore this plan will not address reducing their creation or transformation. There is no intent to reduce the use and release of substances under this Plan.

#### **Objective of the Plan**

The plan process to assess and implement any potentially viable options for the reduction in use of Manganese at the facility found no options to implement and therefore the Plan has no objective.

#### Target & Timeline

YOM found no options to implement to reduce the use of substances, Manganese. Therefore there is no target or timeline.

#### **Description of Toxic Substance Use**

The toxic substance; Manganese, is used at the facility in steel used for manufacturing motor vehicle structural parts and fuel tanks. It is also present in weld wire. It is released to air in emissions from resistance and consumable types of welding, is transferred off-site for recycling in scrap metal, disposed of in very small amounts from floor sweepings and finally, contained-in-product.

#### Manganese (Mn) (CAS# 7439-96-5)

[Mn] release to Air from welding emissions, transfer to recycling from steel offal, disposal to landfill, and contained in product.

- used in Coiled Steel, Carbon Steel Nuts & Weld Wire
- released from Part and Wire Welding Processes at the facility
- has common quantifications and direct and indirect cost estimates

## **TRA Summary Table**

TOXICS REDUCTION ACT 2011 - PUBLIC REPORTING

#### YACHIYO of ONTARIO MFG., INC.

Substance	CAS No.	Units	Used	Created	On-Site Releases			Disposal		Off-Site	Contained
					Air	Land	Water	On-Site	Off-Site	Recycling	In Product
Manganese	7439-96-5	tonnes	100 - 1000	-	0 - 1	-	-		0 - 1	100 - 1000	100 - 1000

#### **Description of Options**

Product specifications and clients' needs combined effectively limit the feasibility of options. Yachiyo also has several programs in-place that provide small reductions but do not suffice to implement. As a result, there are no options made under this plan. The seven categories of Toxic Substance Reduction options are assessed in the table below. All categories are assessed and entries are made as explanation for why no option is available.

Table 1. Identifying and Describing Options in Seven Categories for the reduction of Toxic Substances at the Facility								
Toxic Substance	Options: MANGANESE							
Reduction Category								
1. Material or Feedstock Substitution	Customers require steel parts manufactured at YOM to meet their own production specifications. The inclusion of Manganese in Coiled Steel alloys provides required chemical and/or physical characteristics of the Metal which are desired by YOM and their customers to meet the specifications during production and throughout the life cycle of the metal parts. There is no present material or feedstock substitute.							
2. Product Design or Reformulation	Products are manufactured to meet functional requirements and formulation is based on customer and performance requirements. YOM's existing program, CRF - Countermeasure Request Form : Pre-production planning optimizes material use and process to make parts most efficiently. Potential for ongoing quantifiable reductions though system is already established and offers no new reduction option.							
3. Equipment or Process Modification	<ul> <li>YBQ - Yachiyo Best Quality program: Production practices which optimize weld quality by minimizing weld inefficiency - ultimately minimizes weld emissions though this is not quantifiable in calculated data. Potential for ongoing quantifiable reductions though system is established and offers no new reduction option.</li> <li>NDT - Non-Destruct testing: New/Pilot Program operating on select production lines. Potential to be reassessed to include further production lines, would require customer approvals.</li> <li>Weld filtration equipment could reduce release to air by up to 98% though capture of fume is difficult with so many weld points and will not reduce use.</li> </ul>							
4. Spill & Leak Prevention	Procedures and training in place to minimize operator errors leading to waste or damaged steel. No quantifiable reduction. Detailed handling Procedures established through entire process, (Receiving raw material - shipping product). Crane & Forklift Training - As required. Intended to minimize potential for damaging material/product.							
5. Onsite Reuse or Recycling	YBQ - Yachiyo Best Quality program already ensures the recovery of damaged parts, achieving a virtual 100% recovery of scrap steel including operators using magnets to recover small metal items from sweepings and reuse of tested parts using NDT method. No significant measurable reductions derived.							
6. Improved Inventory Management or Purchasing Techniques	<ul> <li>JIT - Just In Time delivery system in place. Purchasing method in-place, inventory managed to less than 1% surplus material at end of production.</li> <li>Facility build-out obsolescence target is 0%. Current target 0% vs. Actual achieved &lt;1% - Numbers are tracked, program achieves figures akin to &lt;10,000 kg of 1,000,000 kg steel remaining end of year.</li> </ul>							
7. Training or Improved Operating Practices	YBQ - Non-conforming part control. TPM - preventative maintenance program. Equipment Operater Training. Ongoing Training programs and operating procedures which minimize substance waste. No measurable reduction.							

#### **Implementation of Option**

With no options for the reduction of the Substances there is no plan for implementation.

This Toxic Substance Reduction Plan Summary accurately reflects the Plan it summarizes.

#### **Plan Confirmations**

Due to the lateness of the submission of these Plans with regards to the regulatory deadlines certifications may not be stated, rather confirmations are required and provided here;

TOXIC SUBSTANCE REDUCTION PLAN

YACHIYO OF ONTARIO MFG., INC. - BARRIE, ONTARIO

As of March 12, 2014, I, Yoshiyasu Hasegawa, confirm 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 exception of the regulatory deadline, with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]

Yoshiyasu Hasegawa

<u>Mar 17. 2014</u>

Yoshiyasu Hasegawa ∪ President – Yachiyo of Ontario Mfg., Inc. – Barrie (Highest Ranking Employee)

As of March 12, 2014, I, Grahaem Capaldi confirm that I am familiar with the processes at Yachiyo of Ontario Mfg., Inc. that use or create the toxic substance 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 March 12<sup>th</sup>, 2014 and that the plan complies, with the exception of the regulatory deadline, with that Act and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]

<u>Grahaem Capaler</u>

Man. 17, 2014

President - Environmental Reporting Systems Limited (Toxic Substance Reduction Planner)

#### **Rationale for Lateness of Submission**



Yachiyo of Ontario Manufacturing, Inc. 120 Mapleview Drive West Barrie, Ontario L4N 9H6 Tel: (705) 734-1688 Fax: (705) 734-1209

#### RATIONAL FOR LATENESS OF SUBMISSION

Toxic Substance Reduction Planning at our facility was hampered with the departure of our Environmental, Health and Safety Manager, which left the planning tasks to the rest of our planning team. Ultimately, we were forced to shift responsibilities within our organization to have another individual in the lean planning position.

During the review of the supporting data for the substance threshold calculations it was found that the percent composition of materials containing the substance were ranges from Material Safety Data Sheets that had led to results which were overstated. Better information was found to calculate threshold calculations. It came from assay analyses of materials that provided data specific to the materials used. Information prepared for the planning process then had to be updated. Receiving and confirming information from third-party sources sometimes did not always occur as quickly as desired.

Throughout the planning process the consulting firm retained to assist Yachiyo of Ontario Mfg., Inc. with our toxic substance reduction planning was required to meet workloads for other clients, which did add some time to completing the planning process, Our final review of the Toxic Substance Reduction Plan for the Substance listed here is complete and the Plan is submitted;

[Manganese]

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Yoshiyasu Hasegawa (/ President – Yachiyo of Ontario Mfg.,Inc. – Barrie (Highest Ranking Employee)

Mar. 14 2014. Date

Yachiyo – TSRPS – Phase 1