

# **SUMMARY**

## **TOXIC SUBSTANCE REDUCTION PLANS**

### **MERIDIAN LIGHTWEIGHT TECHNOLOGIES INC.**

**155 HIGH STREET**

**STRATHROY**

**PM10**

**PM2.5**

**December 13, 2013**

## Statement of Intent and Objectives of the Plan

**Statement of Intent:** PM10 and PM2.5 are currently created by Meridian in multiple processes involving the High Street facility. We intend to reduce the creation of PM10 and of PM2.5 at this facility. There are no technically and economically feasible options identified for implementation for the Meridian High Street facility for reduction of the creation neither of PM10 nor of PM2.5 at this time.

**Objective:** Meridian operates the Strathroy facilities with the commitment to minimizing the impacts of the operations on the employees, the environment and the surrounding community. Meridian will continue to pursue options that are technically and economically achievable for the reduction of the creation of PM10 and of PM2.5 at this facility.

Meridian casts, machines and assembles magnesium and aluminum alloy parts according to customer specifications. Ingots of magnesium alloy and of aluminum alloy are melted, cast and machined according to the product specifications prior to shipment to the customer. Raw materials delivered from suppliers and finished products shipped to customers are transported by truck. Vehicle movements in the paved yard areas generate road dust and create PM 10 and PM2.5. Forktrucks fuelled with natural gas handle material movements. During the combustion of the natural gas PM10 and PM2.5 are created. Certain of the melting furnaces are fuelled by natural gas. Combustion of the natural gas creates PM10 and PM2.5. As part of the casting process, dross is removed from the melting crucibles and molten magnesium is removed along with the dross. Oxidation of the molten magnesium generates fumes and PM10 and PM2.5 are created. Cooling is applied in the casting process to promote solidification of the molten metal. The cooling water is supplied from cooling towers which emit water droplets in the exhausted air used to cool the water. When the emitted water droplets vapourize PM10 and PM2.5 are created. Heating equipment fuelled with natural gas is used to maintain temperatures within the facility structures. Combustion of the natural gas creates PM10 and PM2.5.

## Facility Information

Facility Name:	Meridian Lightweight Technologies Inc.
NPRI Identification Number:	7674
Two Digit NAICS Code:	33
Four Digit NAICS Code:	3315
Six Digit NAICS Code:	331523
Number of Full-time Employees:	320
UTM Spatial Coordinates (NAD83):	Latitude: 450167
	Longitude: 4756416
	Datum: NAD 83

## Owner of the Facility Information

Name: Meridian Lightweight Technologies Inc.

## Operator of the Facility Information

Name: Meridian Lightweight Technologies Inc.  
Address: 155 High Street E., Strathroy ON N7G 1H4  
Phone Number: (519) 245-4040 x 69515  
Fax Number: (519) 245-4620  
Email: dlyons@meridian-mag.com

## Toxic Substances for Which Facility Must Prepare Plan:

Substance 1	PM10
CAS Number:	**
Substance 2	PM2.5
CAS Number:	**

### *Public Contact*

Name: Don Lyons  
Position: HSE Specialist  
Address: 155 High St. E., Strathroy, ON N7G 1H4  
Phone Number: (519) 245-4040 x 69515  
Fax Number: (519) 245-4620  
Email: dlyons@meridian-mag.com

There have been no options for reduction of the creation of PM10 or of PM2.5 selected for implementation at this time due to the nature of the processes where the creations are taking place and the mechanisms involved in the creations.

This Plan Summary accurately reflects the content of the Toxic Substance Reduction Plans dated December 13, 2013 prepared for PM10 and for PM2.5 at Meridian, High Street.

As of December 18, 2013, I, Randy Chalmers, 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.

**PM10**  
**PM2.5**



Randy Chalmers  
General Manager, Meridian Lightweight Technologies Inc.  
(Highest Ranking Employee)

12/18/13  
Date

As of December 18, 2013, I, Tim Boose, certify that I am familiar with the processes at Meridian Lightweight Technologies 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 13, 2013 and that the plans comply with that Act and Ontario Regulation 455/09 (General) made under that Act.

**PM10**  
**PM2.5**



Tim Boose  
Toxic Substance Reduction Planner  
Licence # TSRP0095

Dec 18/13  
Date