

## 2014 TRA PLAN SUMMARY - NICKEL

### Canadian Babbitt Bearings, operating as Canadian Specialty Casting

October 22, 2015

Canadian Specialty Castings (CSC) has prepared a Toxic Reduction Plan (the Plan), dated 10 January 2013, based on the requirements of Ontario Regulation 455/09 – General (O. Reg. 455/09) for their Niagara Falls, Ontario facility, and this Plan is current. Under the Act, facilities are required to provide the following information to the public:

For the 2014 reporting year CSC reported four substances to NPRI. The four toxic substances are:

- Chromium, CAS #7440-47-3
- Copper, CAS #7440-50-8
- Nickel, CAS #7440-02-0
- Lead, CAS #7439-92-1

This TRA Plan Summary addresses nickel.

#### Basic Facility Information

|                              |  |
|------------------------------|--|
| Facility Name:               | Canadian Specialty Castings Inc.                             |
| NPRI Identification Number:  | 4541   |
| Six Digit NAICS Code:        | 331529   |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| UTM Spatial Coordinates:     | UTM Easting: 657193<br>UTM Northing: 4775137<br>UTM Zone: 17 |
| Public Contact:              | Trevor Bezo<br>(905) 356-2655                                |
| Parent Company:              | Canadian Babbitt Bearings                                    |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| Ownership:                   | 100%   |
| Number of Employees in 2014: | 45   |

#### FACILITY DESCRIPTION

CSC is a ferrous and non-ferrous foundry that specializes in manufacturing castings for process equipment, combustion and thermal resistant equipment, pressure retaining and rotating equipment, and hydro, gas and steam turbines. Metal alloys, including iron, stainless steel, aluminum, copper,

bronze and nickel, are melted, parts are cast and the castings are finished by cutting, grinding and welding. Sand moulds are made and used for casting and the sand of the moulds is reclaimed.

**Plan Objective:** CSC will strive to reduce the use of nickel at the facility. Further, this plan will determine the technical and economic feasibility of each option to determine which, if any, are viable for implementation at this time.

**Plan Target:** CSC does not intend to establish a reduction target and time frame to reduce the use of nickel.

**Plan Reduction Options:** During 2014 the introduction of band saw cutting to reduce finishing wastes was planned as an action item in 2015.

## COMPARISON OF TOXIC SUBSTANCE ACCOUNTING

| Substance                   | Reporting Year | Mass Purchased (tonnes/yr) | Air Emissions (tonnes/yr) | Off-Site Recycling (tonnes/yr) | Amount in Product (tonnes/yr) |
|-----------------------------|----------------|----------------------------|---------------------------|--------------------------------|-------------------------------|
| Nickel, CAS #7440-02-0      | 2013           | 17.4                       | <0.01                     | 0.86                           | 16.55                         |
|                             | 2014           | 13.2                       | <0.01                     | 0.7                            | 12.51                         |
| Year to Year Change, tonnes |                | -4.2                       | 0                         | -0.16                          | -4.04                         |
| Year to Year Change, %      |                | -24%                       | NC                        | -19%                           | -24%                          |
| Reason for Change           |                | 1.                         |                           | 1.                             | 1.                            |

Notes: 1. Decrease in production  
NC – no change

Since nickel is not created at the facility, the amount created is not addressed in the Plan. Nickel is also not released to surface waters, to land, disposed of on-site to land, transferred off-site for disposal or transferred off-site for treatment prior to final disposal.

## 2014 TRA PLAN SUMMARY- LEAD

### Canadian Babbitt Bearings, operating as Canadian Specialty Casting

October 22, 2015

Canadian Specialty Castings (CSC) has prepared a Lead Toxic Reduction Plan (the Plan), dated 30 December 2014, based on the requirements of Ontario Regulation 455/09 – General (O. Reg. 455/09) for their Niagara Falls, Ontario facility, and this Plan is current. Under the Act, facilities are required to provide the following information to the public:

For the 2014 reporting year CSC reported four substances to NPRI. The four toxic substances are:

- Chromium, CAS #7440-47-3
- Copper, CAS #7440-50-8
- Nickel, CAS #7440-02-0
- Lead, CAS #7439-92-1

This TRA Plan Summary addresses lead.

#### Basic Facility Information

|                              |  |
|------------------------------|--|
| Facility Name:               | Canadian Specialty Castings Inc.                             |
| NPRI Identification Number:  | 4541   |
| Six Digit NAICS Code:        | 331529   |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| UTM Spatial Coordinates:     | UTM Easting: 657193<br>UTM Northing: 4775137<br>UTM Zone: 17 |
| Public Contact:              | Trevor Bezo<br>(905) 356-2655                                |
| Parent Company:              | Canadian Babbitt Bearings                                    |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| Ownership:                   | 100%   |
| Number of Employees in 2014: | 45   |

#### **FACILITY PLAN DESCRIPTION**

CSC is a ferrous and non-ferrous foundry that specializes in manufacturing castings for process equipment, combustion and thermal resistant equipment, pressure retaining and rotating equipment, and hydro, gas and steam turbines. Metal alloys, including iron, stainless steel, aluminum, copper,

bronze and nickel, are melted, parts are cast and the castings are finished by cutting, grinding and welding. Sand moulds are made and used for casting and the sand of the moulds is reclaimed.

**Plan Objective:** CSC will strive to reduce the use of lead at the facility. Further, this plan will determine the technical and economic feasibility of each option to determine which, if any, are viable for implementation at this time.

**Plan Target:** CSC does not intend to establish a reduction target and time frame to reduce the use of lead.

**Plan Reduction Options:** During 2014 the introduction of band saw cutting to reduce finishing wastes was planned as an action item in 2015. The purchasing and inventory management of lead alloy was introduced in 2014 in order to reduce the quantity of lead on-site.

## COMPARISON OF TOXIC SUBSTANCE ACCOUNTING

| Substance                   | Reporting Year | Mass Purchased (kg/yr) | Air Emissions (kg/yr) | Off-Site Recycling (kg/yr) | Amount in Product (tonnes/yr) |
|-----------------------------|----------------|------------------------|-----------------------|----------------------------|-------------------------------|
| Lead, CAS #7439-92-1        | 2013           | 115                    | <1.0                  | 5.7                        | 109.3                         |
|                             | 2014           | 45                     | <1.0                  | 1.0                        | 43.0                          |
| Year to Year Change, tonnes |                | -70                    | 0                     | -4.7                       | -66                           |
| Year to Year Change, %      |                | -61%                   | NC                    | -82%                       | -61%                          |
| Reason for Change           |                | 1.                     |                       | 1.                         | 1.                            |

Notes: 1. Decrease in production  
NC – no change

Since lead is not created at the facility, the amount created is not addressed in the Plan. Lead is also not released to surface waters, to land, disposed of on-site to land, transferred off-site for disposal or transferred off-site for treatment prior to final disposal.

## 2014 TRA PLAN SUMMARY - COPPER

Canadian Babbitt Bearings, operating as Canadian Specialty Casting

October 22, 2015

Canadian Specialty Castings (CSC) has prepared a Toxic Reduction Plan (the Plan), dated 10 January 2013, based on the requirements of Ontario Regulation 455/09 – General (O. Reg. 455/09) for their Niagara Falls, Ontario facility, and this Plan is current. Under the Act, facilities are required to provide the following information to the public:

For the 2014 reporting year CSC reported four substances to NPRI. The four toxic substances are:

- Chromium, CAS #7440-47-3
- Copper, CAS #7440-50-8
- Nickel, CAS #7440-02-0
- Lead, CAS #7439-92-1

This TRA Plan Summary addresses copper.

### Basic Facility Information

|                              |  |
|------------------------------|--|
| Facility Name:               | Canadian Specialty Castings Inc.                             |
| NPRI Identification Number:  | 4541   |
| Six Digit NAICS Code:        | 331529   |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| UTM Spatial Coordinates:     | UTM Easting: 657193<br>UTM Northing: 4775137<br>UTM Zone: 17 |
| Public Contact:              | Trevor Bezo<br>(905) 356-2655                                |
| Parent Company:              | Canadian Babbitt Bearings                                    |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| Ownership:                   | 100%   |
| Number of Employees in 2014: | 45   |

### FACILITY & PLAN DESCRIPTION

CSC is a ferrous and non-ferrous foundry that specializes in manufacturing castings for process equipment, combustion and thermal resistant equipment, pressure retaining and rotating equipment, and hydro, gas and steam turbines. Metal alloys, including iron, stainless steel, aluminum, copper,

bronze and nickel, are melted, parts are cast and the castings are finished by cutting, grinding and welding. Sand moulds are made and used for casting and the sand of the moulds is reclaimed.

**Plan Objective:** CSC will strive to reduce the use of copper at the facility. Further, this plan determines the technical and economic feasibility of each option to determine which, if any, are viable for implementation at this time.

**Plan Target:** CSC does not intend to establish a reduction target and time frame to reduce the use of copper.

**Plan Reduction Options:** The Plan did not identify copper reduction options which were either technically or economically feasible, therefore, there was no implementation of copper reduction options in 2014.

## COMPARISON OF TOXIC SUBSTANCE ACCOUNTING

| Substance                   | Reporting Year | Mass Purchased (tonnes/yr) | Air Emissions (tonnes/yr) | Off-Site Recycling (tonnes/yr) | Amount in Product (tonnes/yr) |
|-----------------------------|----------------|----------------------------|---------------------------|--------------------------------|-------------------------------|
| Copper, CAS #7440-50-8      | 2013           | 13.8                       | <0.01                     | 0.69                           | 13.18                         |
|                             | 2014           | 8.54                       | <0.01                     | 0.38                           | 8.13                          |
| Year to Year Change, tonnes |                | -5.26                      | 0                         | -0.31                          | -5.05                         |
| Year to Year Change, %      |                | -38%                       | NC                        | -45%                           | -38%                          |
| Reason for Change           |                | 1.                         |                           | 1.                             | 1.                            |

Notes: 1. Decrease in production  
NC – No change

Since copper is not created at the facility, the amount created is not addressed in the Plan. Copper is also not released to surface waters, to land, disposed of on-site to land, transferred off-site for disposal or transferred off-site for treatment prior to final disposal.

## 2014 TRA PLAN SUMMARY - CHROMIUM

Canadian Babbitt Bearings, operating as Canadian Specialty Casting

October 22, 2015

Canadian Specialty Castings (CSC) prepared a Chromium Toxic Reduction Plan (the Plan), dated 30 December 2014, based on the requirements of Ontario Regulation 455/09 – General (O. Reg. 455/09) for their Niagara Falls, Ontario facility, and this Plan is current. Under the Act, facilities are required to provide the following Plan Summary information to the public:

For the 2014 reporting year CSC reported four substances to NPRI. The four toxic substances are:

- Chromium, CAS #7440-47-3
- Copper, CAS #7440-50-8
- Nickel, CAS #7440-02-0
- Lead, CAS #7439-92-1

This TRA Plan Summary addresses chromium.

### Basic Facility Information

|                              |  |
|------------------------------|--|
| Facility Name:               | Canadian Specialty Castings Inc.                             |
| Six Digit NAICS Code:        | 331529   |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| UTM Spatial Coordinates:     | UTM Easting: 657193<br>UTM Northing: 4775137<br>UTM Zone: 17 |
| Public Contact:              | Trevor Bezo<br>(905) 356-2655                                |
| Parent Company:              | Canadian Babbitt Bearings                                    |
| Address:                     | 4248 Broughton Avenue<br>Niagara Falls, Ontario L2E 3K6      |
| Ownership:                   | 100%   |
| Number of Employees in 2014: | 45   |

### FACILITY DESCRIPTION

CSC is a ferrous and non-ferrous foundry that specializes in manufacturing castings for process equipment, combustion and thermal resistant equipment, pressure retaining and rotating equipment, and hydro, gas and steam turbines. Metal alloys, including iron, stainless steel, aluminum, copper,

bronze and nickel, are melted, parts are cast and the castings are finished by cutting, grinding and welding. Sand moulds are made and used for casting and the sand of the moulds is reclaimed.

**Plan Objective:** CSC will strive to reduce the use of chromium at the facility. Further, this plan determines the technical and economic feasibility of each option to determine which, if any, are viable for implementation at this time.

**Plan Target:** CSC does not intend to establish a reduction target and time frame to reduce the use of chromium.

**Plan Reduction Options:** During 2014 the introduction of band saw cutting to reduce finishing wastes was planned as an action item in 2015.

## COMPARISON OF TOXIC SUBSTANCE ACCOUNTING

| Substance                   | Reporting Year | Mass Purchased (tonnes/yr) | Air Emissions (tonnes/yr) | Off-Site Recycling (tonnes/yr) | Amount in Product (tonnes/yr) |
|-----------------------------|----------------|----------------------------|---------------------------|--------------------------------|-------------------------------|
| Chromium, CAS #7440-47-3    | 2013           | 34.6                       | <0.01                     | 1.7                            | 32.9                          |
|                             | 2014           | 21.7                       | <0.01                     | 0.8                            | 20.9                          |
| Year to Year Change, tonnes |                | -12.9                      | 0                         | -0.9                           | -12.0                         |
| Year to Year Change, %      |                | -37%                       | NC                        | -53%                           | -36%                          |
| Reason for Change           |                | 1.                         |                           | 1.                             | 1.                            |

Notes: 1. Decrease in production  
NC – no change

Since chromium is not created at the facility, the amount created is not addressed in the Plan. Chromium is also not released to surface waters, to land, disposed of on-site to land, transferred off-site for disposal or transferred off-site for treatment prior to final disposal.