

TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

This Toxic Substance Reduction Plan Summary has been prepared in accordance with Section 8(2) of the *Toxics Reduction Act* and satisfies the minimum Plan Summary content requirements stipulated in Section 24 of Ontario Regulation 455/09.

Basic Facility Information

Mandatory Basic Facility Information Item	Details
Substance Name and Chemical Abstracts Service (CAS) Registry Number, if any	■ Quinoline (91-22-5)
NPRI and O. Reg. 127/01 Identification Numbers	1520
The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address of the facility, if different	Ivaco Rolling Mills 1040 County Road 17 PO Box 332 L'Orignal, Ontario K0B 1K0 Canada
The number of full time employee equivalents at the facility	472
The two- and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code	"33" Manufacturing "3311" Iron and Steel Mills and Ferroalloy Manufacturing "331110" All Other Miscellaneous Manufacturing
Public contact, technical contact and person who is responsible for coordinating plan preparation	Joel Campbell, Contract Environmental Engineer
The person who prepared the plan	Camille Taylor, Senior Air Quality Specialist, Golder Associates Ltd. TSRP 0283
The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum	522923 m, 5051092 m, Zone 18
Parent Company Information	Ivaco Rolling Mills 2004 LP 1040 County Road 17 L'Orignal, Ontario K0B 1K0

List of All Substances for which Toxic Substance Reduction Plans Have Been Prepared at the Facility

The Facility has prepared the Toxic Substance Reduction Plan for Quinoline.

Statement of Intent

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

The Toxic Substance is never used within the Facility's process and therefore no statement with respect to intent to reduce "use" of the Toxic Substance is required.

A statement of the Facility's intent to reduce its "creation" of the Toxic Substances has not been included as a part of this Plan.

The Toxic Substance has triggered reporting under the TRA and O.Reg.455/09. The Toxic Substance is created at the Facility as a trace contaminants from the combustion process. The Facility activities which the TRA has defined as a “creation” of this Toxic Substance can only be reduced by reducing the Facility’s production.

Additionally, the Facility has overarching Corporate Environmental and Health and Safety Policy Statements (provided in Appendix C). Standard Operating Procedures (SOP) and including spill prevention, control and countermeasure plans have been developed in accordance with the policy statements. When required, new SOPs are developed and current SOPs are revised on an as needed basis to reflect best practices and minimize releases of the Toxic Substance. As per the Corporate Health and Safety Policy (provided in Appendix C), training is provided to all team members for their specific job requirements. Training is also provided to maintain all equipment in good working order and to minimize emissions.

Objectives of the Toxic Substance Reduction Plan

The objectives of this Toxics Reduction Plan (TRP) are to:

- provide support for the Facility’s position with respect to the Statement of Intent by providing an explanation of how the TRA’s definition of the word “creation”, as applied to the Toxic Substance, renders it impossible to reduce the “creation” of the Toxic Substance without reducing Facility production
- provide support for the Facility’s position with respect to the Statement of Intent of the Plans
- document how the Facility has fulfilled the applicable requirements under the TRA and O. Reg. 455/09 with respect to the Toxic Substance

Description of Why the Toxic Substance Is Used or Created

The activity that has been classified as a “creation” of the toxic substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance is the creation of the Toxic Substance as a trace contaminant from combustion. The Toxic Substance is never “used” in the Facility’s process. A graphical representation of the Facility’s “creation” and subsequent release of the Toxic Substances is provided as part of the Toxic Substance QAR exercise in Appendix A. Process Flow Diagrams (PFDs) and associated descriptions of stages and processes are described in detail in the following section.

Toxic Substance Reduction Options Selected for Implementation

With the assistance of a licensed Toxic Substance Reduction Planner, Facility personnel have examined each of the seven categories for toxic substance reduction options. It is not necessarily a requirement under O. Reg. 455/09 to provide toxic substance reduction options, however s.17(1)2 of O. Reg. 455/09 states that if an option cannot be identified under any category, an explanation as to why no option can be identified is required.

Furthermore, s.17(2) of O. Reg. 455/09 states that any options identified must not violate any federal or provincial law or municipal by-law, and not result in a net negative impact on human health and/or the environment considering all positive and negative effects resulting from the option.

The following statement satisfies s.17(1)2 of O.Reg.419/05 each of the seven toxic substance reduction categories for the Toxic Substance.

The activity that has been classified as a “creation” of the toxic substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance is the creation of the Toxic Substance as a trace contaminant from combustion. The Toxic Substance is never “used” in the Facility’s

process. As described within this document, the Facility cannot reduce its “creation” of the Toxic Substances without reducing production and therefore no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories. Furthermore, the Facility, commissioned a new EAF and baghouse in 2014, which is considered to be state of the art. The Facility was designed based on current standards and practices. The equipment and processes are have been subject to continuous optimization since installation to increase efficiency and reduce the production of the toxic substances. The Facility has Standard Operating Procedures (SOP) which addresses the prevention of spills and leaks.

Rationale for Not Implementing Toxic Substance Reduction Options

As required by s.17(2) of O. Reg. 455/09, a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories. This result is due mainly to the proactive approach employed by Facility personnel to increase efficiency, the installation of a state of the art baghouse and EAF, and continuous process optimization. These proactive approaches, which have resulted in potential reductions of toxic substance use, have been realized prior to this exercise. Improved operations and equipment are continually being researched and assessed for applicability and feasibility, as improved efficiencies aid in minimizing costs and reducing the production of all toxic substances. This is strongly encouraged by the facility's practices and the Environmental Management System.

Therefore, the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified. Facility personnel will continue to evaluate and assess future potential reduction options as they become available through the advancement of materials technology, manufacturing process and management.

Planner License Number

As required by s.18(2) of O. Reg. 455/09, the Licensed Toxic Substance Reduction Planner responsible for providing Planner Recommendations on and certification of this Plan is as follows:

Camille Taylor
Senior Air Quality Specialist
Golder Associates Ltd.
Toxic Substance Reduction Planner License Number TSRP 0283

Copies of the Confirmation

Certification statements are provided in the following page.

Toxic Substance Reduction Plan Certification by Highest Ranking Employee

As required by s.4(2) of the *Toxics Reduction Act* (TRA), Toxic Substance Reduction Plan must contain a certification, signed by the highest ranking employee at the Facility who has management responsibilities relating to the Facility.

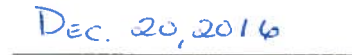
The following Certification Statement is being made under s.19(2) of Ontario Regulation (O.Reg.) 455/09 (as amended by s.11 of O.Reg.214/11) and satisfies the requirements of s.4(2) of the TRA for the Toxic Substance Plan that is assembled within this document as of the date of this Certification Statement. Furthermore, the following Certification Statement is limited to the respective versions of the Plans which are dated as indicated in the Certification Statement:

As of December 9, 2016, I, Joe Olenick, 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

- Quinoline (dated, December 2016)



Joe Olenick
General Manager
1040 County Road 17
L'Orignal, Ontario
K0B 1K0



Date

December 2016

Project No. 11-1125-0006

Joe Olenick
Ivaco Rolling Mills 1040 County Road 17
L'Orignal, ON
K0B 1K0

**LICENSED TOXIC SUBSTANCE REDUCTION PLANNER CERTIFICATION STATEMENT FOR
TOXIC SUBSTANCE REDUCTION PLANS FOR IVACO ROLLING MILLS, L'ORIGNAL, ONTARIO**

Dear Mr. Olenick:

Golder Associates Ltd. (Golder) was retained by Ivaco Rolling Mills (Ivaco) located at 1040 County Road 17, L'Orignal, ON (the Facility) to provide various services pertaining to Toxic Substance Reduction Plan preparation under the *Toxic Reduction Act* (TRA), including Toxic Substance Reduction Planner (Planner) certification of Toxic Substance Reduction Plans (the Plans).

The following Planner Certification Statement which is made under s.19.1(4) of Ontario Regulation (O.Reg.) 455/09 (as amended by s.11 of O.Reg.214/11) satisfies the Planner Certification requirements for the Plans that are assembled as a single document as of the date of this Certification Statement. Furthermore, the following Certification Statement is limited to the respective versions of the Plans which are dated as indicated in the Certification Statement:

As of December 9, 2016, I, Camille Taylor, certify that I am familiar with the processes at Ivaco Rolling Mills located at 1040 County Road 17, L'Orignal, Ontario that uses the toxic substances referred to below. 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 toxic substance reduction plans referred to below for the toxic substances and that the plans comply with that Act and Ontario Regulation 455/09 (General) made under that Act.

- Quinoline (dated, December 2016)



Camille Taylor, P.Eng., Eng.
Toxic Substance Reduction Planner
License No. 0283

December 2016

Date

LGE/CST/md

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TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

This Toxic Substance Reduction Plan Summary has been prepared in accordance with Section 8(2) of the *Toxics Reduction Act* and satisfies the minimum Plan Summary content requirements stipulated in Section 24 of Ontario Regulation 455/09.

Basic Facility Information

Mandatory Basic Facility Information Item	Details
Substance Name and Chemical Abstracts Service (CAS) Registry Number, if any	Polycyclic Aromatic Hydrocarbons (PAH's) including: <ul style="list-style-type: none"> ■ Acenaphthylene (208-96-8); ■ Fluoranthene (206-44-0); ■ Fluorene (86-73-7); ■ Phenanthrene (85-01-8); and, ■ Pyrene (129-00-0);
NPRI and O. Reg. 127/01 Identification Numbers	1520
The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address of the facility, if different	Ivaco Rolling Mills 1040 County Road 17 PO Box 322 L'Orignal, Ontario K0B 1K0 Canada
The number of full time employee equivalents at the facility	472
The two- and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code	"33" Manufacturing "3311" Iron and Steel Mills and Ferroalloy Manufacturing "331110" All Other Miscellaneous Manufacturing
Public contact, technical contact and person who is responsible for coordinating plan preparation	Joel Campbell, Contract Environmental Engineer
The person who prepared the plan	Camille Taylor, Senior Air Quality Specialist, Golder Associates Ltd. TSRP 0283
The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum	522923 m, 5051092 m, Zone 18
Parent Company Information	Ivaco Rolling Mills 2004 LP 1040 County Road 17 L'Orignal, Ontario K0B 1K0

List of All Substances for which Toxic Substance Reduction Plans Have Been Prepared at the Facility

The Facility has prepared Toxic Substance Reduction Plans for the prescribed group of Toxic Substances known as Polycyclic Aromatic Hydrocarbon (PAH) compounds, including:

- Acenaphthylene;
- Fluoranthene;
- Fluorene;
- Pyrene; and,
- Phenanthrene.

Statement of Intent

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substances at the Facility, or the reasons for not including this statement.

The Toxic Substances are never used within the Facility's process and therefore no statement with respect to intent to reduce "use" of the Toxic Substances is required.

A statement of the Facility's intent to reduce its "creation" of the Toxic Substances has not been included as a part of this Plan.

The Toxic Substances have triggered reporting under the TRA and O.Reg.455/09. The Toxic Substances are created at the Facility as a trace contaminants from the combustion process. The Facility activities which the TRA has defined as a "creation" of these Toxic Substances can only be reduced by reducing the Facility's production.

Additionally, the Facility has overarching Corporate Environmental and Health and Safety Policy Statements (provided in Appendix C). Standard Operating Procedures (SOP) and including spill prevention, control and countermeasure plans have been developed in accordance with the policy statements. When required, new SOPs are developed and current SOPs are revised on an as needed basis to reflect best practices and minimize releases of the Toxic Substances. As per the Corporate Health and Safety Policy (provided in Appendix C), training is provided to all team members for their specific job requirements. Training is also provided to maintain all equipment in good working order and to minimize emissions.

Objectives of the Toxic Substance Reduction Plan

The objectives of this Toxics Reduction Plan (TRP) are to:

- provide support for the Facility's position with respect to the Statement of Intent by providing an explanation of how the TRA's definition of the word "creation", as applied to the Toxic Substance, renders it impossible to reduce the "creation" of the Toxic Substance without reducing Facility production;
- provide support for the Facility's position with respect to the Statement of Intent of the Plans; and,
- document how the Facility has fulfilled the applicable requirements under the TRA and O. Reg. 455/09 with respect to the Toxic Substances.

Description of Why the Toxic Substance Is Used or Created

The activity that has been classified as a “creation” of the toxic substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance is the creation of the Toxic Substance as a trace contaminant from combustion. The Toxic Substance is never “used” in the Facility’s process. A graphical representation of the Facility’s “creation” and subsequent release of the Toxic Substances is provided as part of the Toxic Substance QAR exercise in Appendix A. Process Flow Diagrams (PFDs) and associated descriptions of stages and processes are described in detail in the following section.

Toxic Substance Reduction Options Selected for Implementation

With the assistance of a licensed Toxic Substance Reduction Planner, Facility personnel have examined each of the seven categories for toxic substance reduction options. It is not necessarily a requirement under O. Reg. 455/09 to provide toxic substance reduction options, however s.17(1)2 of O. Reg. 455/09 states that if an option cannot be identified under any category, an explanation as to why no option can be identified is required.

Furthermore, s.17(2) of O. Reg. 455/09 states that any options identified must not violate any federal or provincial law or municipal by-law, and not result in a net negative impact on human health and/or the environment considering all positive and negative effects resulting from the option.

The following statement satisfies s.17(1)2 of O.Reg.419/05 each of the seven toxic substance reduction categories for the Toxic Substances.

The activity that has been classified as a “creation” of the toxic substance for the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance is the creation of the Toxic Substance as a trace contaminant from combustion. The Toxic Substances are never “used” in the Facility’s process. As described within this document, the Facility cannot reduce its “creation” of the Toxic Substances without reducing production and therefore no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories. Furthermore, the Facility, commissioned a new EAF and baghouse in 2014, which is considered to be state of the art. The Facility was designed based on current standards and practices. The equipment and processes are have been subject to continuous optimization since installation to increase efficiency and reduce the production of the toxic substances. The Facility has Standard Operating Procedures (SOP) which addresses the prevention of spills and leaks.

Rationale for Not Implementing Toxic Substance Reduction Options

As required by s.18(4) of O. Reg. 455/09, a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories. This result is due mainly to the proactive approach employed by Facility personnel to increase efficiency, the installation of a state of the art baghouse and EAF, and continuous process optimization. These proactive approaches, which have resulted in potential reductions of toxic substance use, have been realized prior to this exercise. Improved operations and equipment are continually being researched and assessed for applicability and feasibility, as improved efficiencies aid in minimizing costs and reducing the production of all toxic substances. This is strongly encouraged by the facility’s practices and the Environmental Management System.

Therefore, the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified. Facility personnel will continue to evaluate and assess future potential reduction options as they become available through the advancement of materials technology, manufacturing process and management.

Planner License Number

As required by s.18(2) of O. Reg. 455/09, the Licensed Toxic Substance Reduction Planner responsible for providing Planner Recommendations on and confirmation of this Plan is as follows:

Camille Taylor
Senior Air Quality Specialist
Golder Associates Ltd.
Toxic Substance Reduction Planner License Number TSRP 0283

Copies of the Confirmation

Confirmation statements are provided in the following page.

Toxic Substance Reduction Plans Confirmation by Highest Ranking Employee

As required by s.4(2) of the *Toxics Reduction Act* (TRA), Toxic Substance Reduction Plans must contain a confirmation, signed by the highest ranking employee at the Facility who has management responsibilities relating to the Facility.

As per TRA guidance, if a Toxic Substance Reduction Plan is completed after the date prescribed in s.11.1 of Ontario Regulation (O.Reg.) 455/09, a rationale must be provided by the HRE which explains the reason that the Plan was completed after the prescribed date. Also following TRA guidance, a "Confirmation Statement" is being provided in place of the corresponding Certification Statement prescribed in s.19 of O.Reg.455/09.

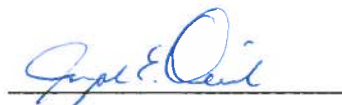
The following statement, made on behalf of the HRE satisfies the requirement for a written rationale for completing each respective Toxic Substance Reduction Plan listed below after the date prescribed in s.11.1 of O.Reg.455/09:

The Toxic Substance Reduction Plans subject to this Confirmation Statement have not been completed in accordance with s.11.1 of O.Reg.455/09 as Facility and market conditions at the time of the prescribed completion date for these Toxic Substance Reduction Plans did not allow for the appropriate resources to be allocated to preparing the Toxic Substance Reduction Plans.

The following Confirmation Statement satisfies the requirements of s.4(2) of the TRA for the Toxic Substance Plans that are assembled within this single document, with the exception of s.11.1 of O.Reg.455/09:

As of December 9, 2016, I, Joe Olenick, confirm 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 with the exception of section 11.1.

- *Acenaphthylene* (dated, December 2016)
- *Fluoranthene* (dated, December 2016)
- *Fluorene* (dated, December 2016)
- *Phenanthrene* (dated, December 2016)
- *Pyrene* (dated, December 2016)



Joe Olenick
General Manager
1040 County Road 17
L'Orignal, Ontario
K0B 1K0



Date

December 2016

Project No. 12-1125-0006

Joe Olenick
Ivaco Rolling Mills 1040 County Road 17
L'Orignal, Ontario
K0B 1K0

**LICENSED TOXIC SUBSTANCE REDUCTION PLANNER CONFIRMATION STATEMENT FOR TOXIC
SUBSTANCE REDUCTION PLANS FOR IVACO ROLLING MILLS
L'ORIGNAL, ONTARIO**

Dear Mr. Olenick::

Golder Associates Ltd. (Golder) was retained by Ivaco Rolling Mills (Ivaco) located at 1040 County Road 17, L'Orignal, ON (the Facility) to provide various services pertaining to Toxic Substance Reduction Plan preparation under the *Toxic Reduction Act* (TRA), including Toxic Substance Reduction Planner (Planner) confirmation of Toxic Substance Reduction Plans (the Plans).

Following TRA guidance, in circumstances where a Plan is prepared after the date prescribed in s.11.1 of Ontario Regulation (O.Reg.) 455/09, a Planner "Confirmation Statement" is to be provided in place of the corresponding Certification Statement prescribed in s.19 of O.Reg.455/09. The following Confirmation Statement satisfied this requirement. Furthermore, the following Confirmation Statement is limited to the respective versions of the Plans which are dated as indicated in the Confirmation Statement:

As of December 19, 2016, I, Camille Taylor, confirm that I am familiar with the processes at Ivaco Rolling Mills located at 1040 County Road 17, L'Orignal, Ontario that uses the toxic substances referred to below. 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 toxic substance reduction plans referred to below for the toxic substances and that the plans comply with that Act and Ontario Regulation 455/09 (General) made under that Act with the exception of section 11.1.

- *Acenaphthylene* (dated, December 2016)
- *Fluoranthene* (dated, December 2016)
- *Fluorene* (dated, December 2016)
- *Phenanthrene* (dated, December 2016)
- *Pyrene* (dated, December 2016)



Camille Taylor, P.Eng., Eng.
Toxic Substance Reduction Planner
License No. 0283

December 19, 2016

Date

LGE/CT/SC/ob/md

