

Report to:

**IRVING CONSUMER PRODUCTS LTD.
IRVING TISSUE- TORONTO PLANT**

**Toxic Substances Reduction Plan Summary
Volatile Organic Compounds**

Document No.

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Report to:

**IRVING CONSUMER PRODUCTS LTD.
IRVING TISSUE – TORONTO PLANT**

1551 WESTON RD
YORK, ONTARIO
M6M 4Y4

**TOXIC SUBSTANCES REDUCTION PLAN SUMMARY
VOLATILE ORGANIC COMPOUNDS**

May 28th, 2018

Prepared by		Date	<u>May 28/2018</u>
	Douglas McLaren, P.Eng		
Reviewed by		Date	<u>May 30/2018</u>

REVISION HISTORY

REV. NO	ISSUE DATE	PREPARED BY AND DATE	REVIEWED BY AND DATE	APPROVED BY AND DATE	DESCRIPTION OF REVISION
1	May 28, 2018	DM May 2018			Draft for Comments & Approval

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1.0 BASIC FACILITY INFORMATION

The Basic Facility information required under the Toxic Reduction Act is presented in the following table:

Company Name	Irving Consumer Products Ltd.
Operating As:	Irving Tissue Corporation
Highest Ranking Employee	Michael Yang Plant Manager Phone: 416-697-5562 Email: Yang.michael@irvingtissue.ca
Technical Contact	Kristian Miliucci Environmental Leader Phone: 416-428-0480 Email: miliucci.kristian@irvingtissue.ca
Licensed Toxic Substance Reduction Planner	Douglas McLaren, P.Eng Environmental Engineer TSRP ID # 0191
Parent Company	Irving Tissue Corporation 100% Owned
Site Address	1551 Weston Road Toronto, Ontario M6M 4Y4
Site Location (UTM Coordinates)	NAD 83 Zone 17U 620576m East 4838830m North
Business Number	888424413
National Pollutant Release Inventory (NPRI) ID	327
Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting) ID	6336
Facility NAICS Codes	32 Manufacturing, Part 2 3221 Pulp, Paper and Paperboard Mills 322121 Paper Mills (except for newsprint)

This Toxic Substance Reduction Plan covers the following substances which move through the facilities processes and operations together:

Table 1-1: Substances Covered in Plan

Substance Name	Chemical Abstracts Service (CAS) Number
Volatile Organic Compounds	NA - M16
Butane (Mixed Isomers)	NA - 24
Butane	106-97-8
Pentane (Mixed Isomers)	NA - 35
Pentane	109-66-0
Methyl Alcohol	67-56-1
Propane	74-98-6
Solvent Naphtha Medium Aliphatic	64742-88-7
White Mineral Oil	8042-47-5

2.0 STATEMENT OF INTENT

As an industry leader and as responsible corporate citizens, the Irving Tissue Corporation is committed to protection of the natural environment. In full compliance with all federal and provincial regulations, Irving will continue to strive to reduce generation and release of toxic substances, as well as replace or entirely eliminate use of all products (where feasible) containing toxic substances, including the Volatile Organic Compounds (VOCs) identified in this plan.

2.1 OBJECTIVES

The following Objectives have been developed in support of the Statement of Intent:

1. Where feasible, reduce the quantity of toxic substances (including VOCs) used, created and released by continuing to pursue process efficiency improvements throughout the facility; and
2. Where feasible, replace and/or eliminate the use of products containing toxic substances (including VOCs) with those containing less (or non)-hazardous substances by liaising with external suppliers and evaluating alternative products.

3.0 PROCESS DESCRIPTION

The Irving Tissue Toronto facility produces tissue paper products from pulp, including facial/bath tissue and paper towels. Wood pulp is mixed with water and processed by the tissue mills into sheets of tissue, which are then cut to size and packaged for distribution. The packaged products are conveyed through an enclosed system to a warehouse located across the road at 1339 Jane Street.

The primary raw materials used in the tissue making process are wood pulp and water. Pulp is received on site as bleached dry pulp, which is then wetted to re-pulp it into a slurry at the proper consistency for processing in the paper machines. A number of processing aids and additives are also mixed into the pulp to improve specific product qualities.

The facility operates a total of three (3) paper mills including the 4T, 5T and 6T lines, each equipped with pressurized steam powered Yankee Dryers and natural gas fired drying hoods to complete the drying process. Volatile substances from any additives or processing aids will be released to the air during this drying process.

Finished paper towel and bath tissue is transferred onto the appropriately sized cardboard roll and cut to the product size specifications. Large rolls of facial tissue is cut into rectangular sheets and folded and cut to form the finished facial tissue box.

Process steam and heating is provided by two combination natural gas/oil-fired boilers. Comfort heating throughout the facility and warehousing areas is accomplished by steam heating units, with some loading bays heated via natural gas-fired heating units. The facility also maintains two stand-by diesel fired emergency fire pumps (1 on the Weston Road site, 1 on the Jane street site).

The VOCs included in this plan are either created during the tissue milling process, or are used on site in various stages of the process, including pulp additives and adhesives, as detailed below:

- **Creation and Release of Substances - Combustion By-Products:**
 - The following toxic substances are created as by-products of the combustion of natural gas in boilers, dryers and other combustion units, and the combustion of propane in on site transportation (forklifts), and released as airborne emissions:

Substance Name	Chemical Abstracts Service (CAS) Number
Methyl Alcohol	67-56-1
Propane	74-98-6
Butane (Mixed Isomers)	NA - 24
Butane	106-97-8
Pentane (Mixed Isomers)	NA - 35
Pentane	109-66-0

- **Creation and Release of Substances - Tissue Milling Process:**
 - The following toxic substances are created in the manufacturing process and released from the system as airborne emissions:

Substance Name	Chemical Abstracts Service (CAS) Number
Methyl Alcohol	67-56-1
Butane (Mixed Isomers)	NA - 24
Butane	106-97-8
Pentane (Mixed Isomers)	NA - 35
Pentane	109-66-0

- **Use and Release of Substances - Processing aids and adhesives:**
 - A number of processing aids and adhesive products are used at various stages throughout the production processes. Any volatiles present in these products will evaporate and be released as airborne emissions. The following toxic substances are used and released in this manner:

Substance Name	Chemical Abstracts Service (CAS) Number
Methyl Alcohol	67-56-1
Solvent Naphtha Medium Aliphatic	64742-88-7
White Mineral Oil	8042-47-5

4.0 OPTION(S) TO BE IMPLEMENTED

In support of the Objectives identified in Section 2.1, the following Toxic Substance Reduction Options have been identified as feasible for potential implementation at this facility. It is anticipated that the implementation of these Options will result in an overall reduction in the quantities of Toxic Substances, including VOCs, generated and/or released from this facility.

4.1 REDUCE QUANTITIES OF COMBUSTION BY-PRODUCTS

- Optimize the operation of existing equipment, including boilers, dryers and other natural gas-combusting equipment, to reduce the amount of Toxic Substances released; and
- Evaluate new equipment for its potential to reduce or eliminate the quantity of Toxic Substances generated and/or released from this facility.

4.2 REPLACE PRODUCTS CONTAINING HAZARDOUS COMPONENTS

- Substitute products containing toxic substances (where feasible) with comparable alternatives that contain less-hazardous components; and
- Evaluate new products intended for use for their potential to eliminate or reduce the quantity of Toxic Substances generated and/or released from this facility.

5.0 CERTIFICATIONS

This Toxic Substance Reduction Plan Summary accurately reflects the current version of the Toxic Substance Reduction Plan.

As of 5/31/2018 (Date), I Michael Yang, certify that I have read the Toxic Substance Reduction Plan for the toxic substance(s) referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.


Michael Yang, Plant Manager

5/31/2018
Date

As of May 28th, 2018, I Douglas McLaren, certify that I am familiar with the processes at the Irving Tissue Facility that uses, creates and releases 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 May 28th, 2018 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under the Act.



Douglas McLaren, P.Eng. Toxic Substance Date
Reduction Planner # 0191

May 28th, 2018
Date

Substance Name	Chemical Abstracts Service (CAS) Number
Volatile Organic Compounds	NA-M16
Butane (Mixed Isomers)	NA - 24
Butane	106-97-8
Pentane (Mixed Isomers)	NA - 35
Pentane	109-66-0
Methyl Alcohol	67-56-1
Propane	74-98-6
Solvent Naphtha Medium Aliphatic	64742-88-7
White Mineral Oil	8042-47-5

Appendix A

Toxic Substance Reduction Plan Summary Checklist

<i>Basic Facility Information</i>	
<input checked="" type="checkbox"/>	Substance name and Chemical Abstracts Service Registry number, if any
<input checked="" type="checkbox"/>	The National Pollutant Release Inventory (NPRI) identification number
<input checked="" type="checkbox"/>	The identification number assigned by the ministry for the purposes of Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting), if one has been assigned.
<input checked="" type="checkbox"/>	The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address, if different
<input checked="" type="checkbox"/>	The number of full-time employee equivalents at the facility.
<input checked="" type="checkbox"/>	The two- and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code for the facility.
<input checked="" type="checkbox"/>	if applicable, the name, position and telephone number of the individual who is the contact at the facility for the public.
<input checked="" type="checkbox"/>	The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum.
<input checked="" type="checkbox"/>	In respect of the Canadian parent company of the facility, if applicable, i. the legal name of the company, ii. the street and mailing address of the company, if different from the facility iii. if available, the company's percentage of ownership of the facility
<i>Other Mandatory Information</i>	
<input checked="" type="checkbox"/>	List all other substances for which plans have been prepared at the facility
<input checked="" type="checkbox"/>	Statement of intent to reduce the use and/or creation of toxic substance (or reasons for not including one)
<input checked="" type="checkbox"/>	Objectives of the plan and any targets (targets are optional)
<input checked="" type="checkbox"/>	Description of why the toxic substance is used and/or created
<input checked="" type="checkbox"/>	Description of options to be implemented, or, if no options have been selected for implementation, a rationale for why not
<input checked="" type="checkbox"/>	Estimated reductions for each option selected (if any)
<input checked="" type="checkbox"/>	Timelines for achieving the estimated reduction in use and/or creation (if any)
<input checked="" type="checkbox"/>	Statement that the plan summary accurately reflects the plan
<input checked="" type="checkbox"/>	Copies of the certification statements
<input checked="" type="checkbox"/>	Planner license number for the planner who provided recommendations (or rationale for no recommendations)
<input checked="" type="checkbox"/>	Planner license number for the certifying planner
<i>Optional Information</i>	
<input type="checkbox"/>	Rationale for why implementation options were selected
<input type="checkbox"/>	Additional actions taken by the facility to reduce the toxic substance