

TRA ANNUAL SUMMARY REPORT
OPERATIONAL COMPARISON 2018-2019

BASIC FACILITY INFORMATION

Company Name: Rothsay, a Division of Darling International Canada Inc.
884679 Oxford Road 8
Hickson, ON N0J 1L0

Contact Information: John Bayliss
Environmental Manager
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Certifying Official: John Caudle
Plant Manager
(519) 462-2917
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Plant Location (UTM): Zone 17
512134E; 4785786N

Canadian Head Office: Darling International Canada Inc.
485 Pinebush Road, Unit 101
Cambridge, ON
(519) 780-3342

Parent Company: Darling Ingredients Inc.
5601 N MacArthur Boulevard
Irving, TX 75038

The facility's NPRI ID: 29843

NAICS Code: 311614

In 2019, the Rothsay Hickson plant (“Rothsay – Hickson”) employed approximately 33 full time employees (equivalent).

Rothsay – Hickson reported on the use and creation of one (1) toxic substance (Ammonia).

The Statement of Intent, Reduction Objectives and Plan Summary Statements are provided below for each of the reportable toxic substances.

AMMONIA

Ammonia is a toxic substance that is a by-product created on-site as a result of processing animal by-products through the rendering process. The number associated with the TRA reporting through NPRI for Ammonia is NA-16.

Toxic Reduction Policy Statement of Intent

Rothsay – Hickson does not intend to reduce the creation of Ammonia as it is created from the organic content in the wastewater process and dependent on the feed materials. Rendering is an environmental responsible process to transform raw material (inedible animal by-products) into useable feed and fuel ingredients. The organic nature of the raw material results in the transfer and generation of Ammonia to the wastewater stream. Rothsay – Hickson is committed to reducing the use, creation, or transfer of toxic substances in its process wherever it is found to be technically and economically feasible.

Reduction Objective

Rothsay – Hickson is committed to having all employees be actively involved in the reduction of toxic substance use, creation and releases. Ammonia is created as a result of the processing of organic, animal by-product materials. Currently, there is no technically feasible technology or technique that would remove, reduce or limit the Ammonia content within the animal by-products prior to the matter being received at the Rothsay – Hickson facility.

Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for Ammonia prepared on behalf of Rothsay – Hickson dated 17 September 2018. There is currently no technically feasible option for Rothsay – Hickson to reduce the creation of Ammonia in the wastewater stream as it is inherent to the raw materials being processed and transferred to the wastewater for on-site treatment.

TRACKING AND QUANTIFICATIONS

The method used to calculate the TRA quantifications was a mass balance approach based on purchase records and effluent monitoring data.

Table 1 is a summary of reported TRA quantities for the 2019 operational year. There was a significant change in the amount of Ammonia reported compared to the 2018 operational year.

In the 2019 operational year, there were no incidents out of the ordinary and no significant process changes at Rothsay – Hickson.

Table 1: Comparison of Quantities Reported

CAS	Substance	Description of Processes that Use or Create Substance	Reporting under NPRI Part	NPRI Threshold (tonnes)	Used			Created			Contained in Product			Reason for Changes
					2019 (tonnes)	2018 (tonnes)	% Change	2019 (tonnes)	2018 (tonnes)	% Change	2019 (tonnes)	2018 (tonnes)	% Change	
NA - 16	Ammonia	Created	Part 1	10 (MPO)	0.00	0.00	0%	16.704	11.672	30%	0.00	0.00	0%	Increased production.

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NA - 16	Ammonia	Created	Part 1	10 (MPO)	0.00	0.00	0%	>10-100	>10-100	30%	0.00	0.00	0%	Increased production.

COMPARISON OF TRACKING & QUANTIFICATION

No changes were made in the quantification and tracking methodology from 2018 to 2019.

DESCRIPTION OF STEPS TAKEN TO ACHIEVE OBJECTIVE & ASSESS EFFECTIVENESS

There were no technologically feasible reduction strategy objectives identified for the Rothsay – Hickson facility; therefore, no economic feasibility study was completed for any of the prescribed substances.

There are no objectives to track or reduction targets to evaluate.

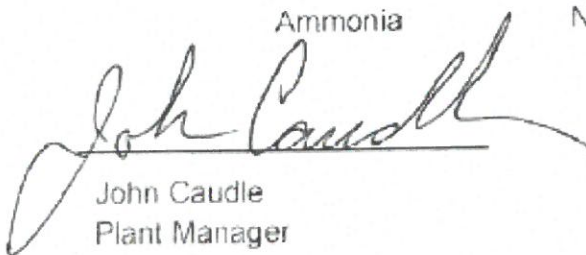
Table 2 provides a summary of the facility TRA changes and updates which took place in 2019.

Table 2: Comparison in Quantification, Quantities and Plan Updates

CAS	Substance	Quantification Method(s) Used	Change in Quantification Method Used	Rationale for Using Selected Method(s)	Incidents out of the Ordinary	Significant Process Change	Objectives, Descriptions, Targets	Actions	Amendments
NA - 16	Ammonia	Mass Balance	No change	Best method available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None

Certification by Highest Ranking Employee

As of 17 September 2018, I, John Caudle, certify that I have read the toxic substance reduction plan for toxic substances referred to below and am familiar with its content, 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.

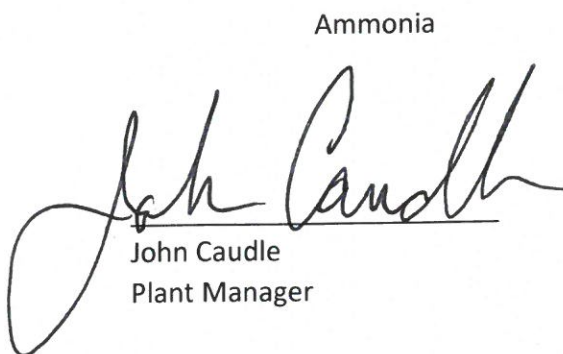
Ammonia NA-16

John Caudle
Plant Manager

17 September 2018

Date

Certification by Highest Ranking Employee

As of 4 June 2020, I, John Caudle, certify that I have read the toxic substance reduction plan for toxic substances referred to below and am familiar with its content, 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.

Ammonia NA-16

John Caudle
Plant Manager

4 June 2020

Date