

**TRA ANNUAL SUMMARY**  
**OPERATIONAL COMPARISON 2015-2016**

**BASIC FACILITY INFORMATION**

Company Name: Wallenstein Feed & Supply Limited  
Monkton Operations

Facility Address: 132 Maddison Street West  
Monkton, Ontario  
N0K 1P0

Contact Information: Vicky Hammel  
Operations Manager  
519-669-5143  
[vickyhammell@wfs.ca](mailto:vickyhammell@wfs.ca)

Certifying Official: Vicky Hammel  
Operations Manager  
519-669-5143  
[vickyhammell@wfs.ca](mailto:vickyhammell@wfs.ca)

Parent Company: Wallenstein Feed & Supply Limited  
100% ownership

UTM Locator (NAD83): Zone - 17  
493362E; 4826005N

The facility's NPRI ID: 10904

In 2016, WFS-Monkton employed about 15 full time employees (equivalent)

The NAICS codes applicable to the facility are:

- 31 - Manufacturing
- 3111 – Animal Food Manufacturing
- 311119 – Other Animal Food Manufacturing

## **TOXIC REDUCTION STRATEGY STATEMENT OF INTENT**

WFS-Monkton does not intend to reduce the amount of copper, manganese, selenium, zinc, cobalt or phosphorous used in its production of animal feed pre-mixes as it is optimized for animal health and growth. Additionally there are no options at this time to reduce the creation of the particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) that results from the handling and processing of the bulk dry feed ingredients.

However as WFS-Monkton is committed to protecting the environment, wherever feasible, the reduction of phosphorous as well as particulate matter from production activities will be implemented should alternatives that are both technically and economically feasible be identified. Our employees are encouraged to participate in all types of reduction activities but the toxic substances associated with WFS-Monkton operations are primary ingredients in our feed pre-mixes to improve and maintain the health of animals. An additional effort is also ongoing at the facility to reduce the discharge and disposal of copper, manganese, selenium, zinc, cobalt and phosphorous as well as the particulate matter created as a by-product of production as this is not only environmentally responsible operations it also indicates improved efficiencies in our processing operations.

Wallenstein Feed & Supply Ltd. is deeply committed to the sustainability of the food chain from animal nutrition to human health. The safety of that food chain and an awareness of impacts on the environment and society are the foundations for sustainability. Ongoing research in animal nutrition will identify any opportunities to reduce or replace the use of potentially toxic substances for the environment while maintaining the quality of feed for optimal animal nutrition

## **REDUCTION OBJECTIVES**

All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Copper, manganese, selenium, zinc, cobalt and phosphorous are the priority substance identified in this planning for the reduction associated with off-specification feed formulations and ultimate disposal of toxic containing materials. WFS-Monkton's goal is to continue to reduce the amount of feed pre-mix disposed of that contain the phosphorous compound where technically and economically feasible. Wallenstein Feed & Supply Ltd. is committed to animal health and nutrition and as advances in nutritional research occur any changes in the source of nutritional supplements will be incorporated into WFS-Monkton's feed pre-mix formulation as it is granted approval by the appropriate governing bodies and found to be an economically viable alternative. All production activities that have the potential to create particulate matter as a by-product has implemented Best Management practices and enhanced controls where technically and economically feasible. Therefore, there are no options being implemented at this time.

## **TOXIC SUBSTANCES**

Eight (8) substances were required to be tracked, quantified and reported for under TRA requirements for the 2016 operational year. These substances are Copper, Manganese, Zinc, Selenium, Phosphorous, Cobalt, PM10, and PM2.5.

The eight (8) substances were reported to the Ministry of the Environment and Climate Change under O. Reg. 455/09 through SWIM.

## **TRACKING AND QUANTIFICATIONS**

The method used to calculate the TRA quantifications was a mass balance approach based on purchase records and emission estimates were based on published AP-42 emission factors. This is the best available method as there is no site specific monitoring data available.

Table 1 is a summary of reported TRA quantities for the 2016 operational year. When compared to the last reported values, an increase can be seen in the use of all substances except Selenium. These changes are due to the increase in overall production of animal feed at the facility and changes to feed formulations.

In the 2016 operational year, there were no out of the ordinary incidents or significant process changes at the facility.

**Table 1: Comparison of Quantities Reported**

CAS	Substance	Description of Processes that Use or Create Substance	Reporting under NPRI Part	NPRI Threshold (tonnes)	2016 Used (tonnes)	Used 2015 - Last Reported Value	% Change	2016 Created (tonnes)	Created 2015 - Last Reported Value	% Change	2016 Contained In Product (tonnes)	Contained in Product 2015- Last Reported Value	% Change	Reason for Changes
NA-06	Copper (and its compounds)	Used as a formulation component	Part 1	10 (MPO)	>10-100	>10-100	4.12%	0.00	0.00	0.00%	>10-100	>10-100	4.11%	No significant change
NA-09	Manganese (and its compounds)	Used as a formulation component	Part 1	10 (MPO)	>10-100	>10-100	41.62%	0.00	0.00	0.00%	>10-100	>10-100	41.62%	Increase in Production
NA-14	Zinc (and its compounds)	Used as a formulation component	Part 1	10 (MPO)	>10-100	>10-100	1.56%	0.00	0.00	0.00%	>10-100	>10-100	1.56%	No significant change
NA-12	Selenium (and its compounds)	Used as a formulation component	Part 1	0.100 (MPO)	>0.100-10	>0.100-10	-18.68%	0.00	0.00	0.00%	>0.100-10	>0.100-10	-18.68%	Decrease in Production
NA-22	Phosphorous (total)	Used as a formulation component	Part 1	10 (MPO)	>100-1000	>100-1000	1.83%	0.00	0.00	0.00%	>100-1000	>100-1000	1.84%	No significant change
NA-05	Cobalt (and its compounds)	Used as a formulation component	Part 1B	0.05 (MPO)	>0.100-10	Not Applicable First Time Reporting due to Change in NPRI Reporting Threshold								
NA-M10	PM2.5 - Particulate Matter	Grain Processing, Supporting Operations	Part 4	0.3 (Release)	0.00	0.00	0.00%	>1-10	>1-10	6.92%	0.00	0.00	0.00%	Increase in Production
NA-M09	PM10 - Particulate Matter	Grain Processing, Supporting Operations	Part 4	0.5 (Release)	0.00	0.00	0.00%	>1-10	>1-10	6.92%	0.00	0.00	0.00%	Increase in Production

## **COMPARISON OF TRACKING AND QUANTIFICATION**

No changes were made in the quantification and tracking methodology from 2015 to 2016.

## **DESCRIPTION OF STEPS TAKEN TO ACHIEVE OBJECTIVE AND ASSESS EFFECTIVENESS**

There was no technologically feasible reduction strategy objectives identified for the Monkton facility and as such there was no economic feasibility study completed for the eight (8) 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 2016.

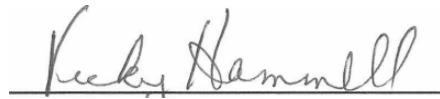
**Table 2: Changes in Quantifications, Quantities and Plan Updates**

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-06	Copper (and its compounds)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-09	Manganese (and its compounds)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-14	Zinc (and its compounds)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-12	Selenium (and its compounds)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-22	Phosphorous (total)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-05	Cobalt (and its compounds)	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	First time reporting in 2016	None	None
NA-M10	PM2.5 - Particulate Matter	Mass Balance/Emission Factors	No change	No site specific monitoring data available	No	No	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	None	None
NA-M09	PM10 - Particulate Matter	Mass Balance/Emission Factors	No change	No site specific monitoring data 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 OF HIGHEST RANKING EMPLOYEE**

As of 30 December 2013, I, Vicky Hammell, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and, with the exception of the deadline, the plan meets all other requirements of the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

- Copper (and its compounds) NA-06
- Manganese (and its compounds) NA-09
- Selenium (and its compounds) NA-12
- Zinc (and its compounds) NA-14

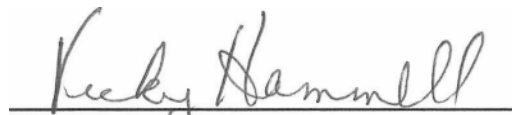


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- |  |        |
|--|--------|
| Phosphorous (total)                                    | NA-22  |
| Particulate Matter <= 10 microns (PM <sub>10</sub> )   | NA-M09 |
| Particulate Matter <= 2.5 microns (PM <sub>2.5</sub> ) | NA-M10 |



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