



**2017 ONTARIO MINISTRY OF THE ENVIRONMENT,  
CONSERVATION AND PARKS  
AIRBORNE CONTAMINANT DISCHARGE O. REG 127/01,  
TOXICS REDUCTION ACT O. REG 455/09,  
AND ENVIRONMENT CANADA NATIONAL POLLUTANT  
RELEASE INVENTORY REPORTING**

*Submitted to:*

**Wallenstein Feed & Supply Ltd., Wallenstein, ON**

*Submitted by:*

**Wood Environment & Infrastructure Solutions,  
a division of Wood Canada Limited  
Cambridge, ON**

**May 2018**

**Project SWC184165**

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**2017 ONTARIO MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS  
O. REG 127/01, TOXICS REDUCTION ACT O. REG 455/09, AND ENVIRONMENT CANADA  
AND CLIMATE CHANGE NPRI REPORTING**

Wallenstein Feed & Supply Ltd.  
Monkton, Ontario

## **1.0 2017 REPORTING SUMMARY**

This report summarizes the information collected and reviewed for the following three reporting programs for the 2017 reporting year:

1. Environment Canada – National Pollutant Release Inventory (NPRI);
2. Ontario Ministry of the Environment, Conservation and Parks (MECP) – O. Reg. 127/01 Airborne Contaminant Discharge - Monitoring and Reporting; and
3. Ontario Ministry of the Environment, Conservation and Parks (MECP) – Toxics Reduction Act (O. Reg. 455/09) Reporting.

This report summarizes the information collected for the National Pollutant Release Inventory (NPRI), the O. Reg. 127/01 and the TRA - O. Reg. 455/09 reporting year.

Calculation summaries for NPRI are included in the Appendix B of this report. Confirmation of submission of the NPRI report on SWIM is included in Appendix A. Calculations for TRA accounting and reporting are included in Appendix C and D.

## **1.1 NPRI REPORTING**

Wallenstein Feed Supply Ltd. submitted operational data for one (1) facility located in Monkton, Ontario, in order to evaluate the NPRI reporting threshold criteria for the mandated substances.

Calculations utilizing NPRI/O.Reg.127/01 approved worksheets and published emission factors have evaluated the emissions and the reportable substances for the Monkton operations are Copper, Phosphorous, Manganese, Selenium, Cobalt and Zinc as it results from ingredient content. PM10 is also a reportable substance as it is released in quantities greater than the 0.5 tonne release threshold.

Table 1: Emission Summary for 2017 Operations provides a detailed list of mandatory reporting requirements for the regulated substance sources and calculated emissions.

**Table 1: Emission Summary for 2017 Operations**

Emission Summary		Compound Threshold Levels Particulate Matter (Tonnes)							
Facility	Emission Source	PM-10	PM-2.5	Copper	Manganese	Zinc	Selenium	Phosphorous	Cobalt
Operational Hours		0.5	0.3	10	10	10	0.1	10	0.05
Monkton 31795 hours  <b>Report</b>	Receive, Load and/or Process	0.476	0.081	-	-	-	-	-	-
	Combustion and/or Stack	0.001	0.001	-	-	-	-	-	-
	Road Dust	0.218	0.052	-	-	-	-	-	-
	Ingredient	-	-	6.25E-05	9.21E-06	1.86E-05	6.35E-08	6.64E-05	6.29E-08
	<b>Emission Total</b>	0.694	0.134	6.25E-05	9.21E-06	1.86E-05	6.35E-08	6.64E-05	6.29E-08
	<b>Total Ingredient Input</b>	-	-	30.79	45.379	91.445	0.313	327.11	0.31

The Monkton facility required submission of NPRI reporting as the use of copper, phosphorus, manganese, zinc, cobalt and selenium as an ingredient mix triggered MPO reporting thresholds.

## 1.2 O. REG. 127/01 REPORTING

For the 2017 reporting year, the MECP did not modify reportable substances from O. Reg. 127/01, accordingly, acetone remains the only reportable substance and its associated quantity limit remained unchanged from the 2016 reporting year.

A review of the acetone emissions under O. Reg. 127/01 indicated that the facility did not meet the reporting threshold. Reporting is therefore not required under O. Reg. 127/01. Notification to the MECP that no thresholds were met is not required.

## 1.3 TRA - O. REG. 455/09 REPORTING

As of 2010, facilities meeting specific criteria (including NPRI criteria and NAICS codes starting with 31, 32, 33, and 212) must report to the provincial government as regulated by the TRA and O. Reg. 455/09. These facilities are required to account for the use of toxic substances.

Toxic substance accounting is a method of tracking and quantifying substances to identify the inputs and outputs of a substance at a facility. Tracking of toxic substances used at a facility is required to identify how the substance enters the process, what happens to it during the process, how it leaves the process, and what happens to it after it leaves the process.

For this reporting year (2017), all of the substances identified on the NPRI substance list are considered as Toxic Substances, which require reporting to the TRA program.

Since the Monkton facility did meeting reporting thresholds under NPRI, and has an applicable NAICS code, they are required to report under TRA as well. Additional reporting was completed for copper, phosphorus, manganese, zinc, selenium, and PM10 as required by the TRA O. Reg. 455/09. Calculations for TRA reporting are included in Appendix C of this report with the Annual Public Summary Report included in Appendix D.

## **1.4 RECORD KEEPING**

### **1.4.1 NPRI**

It is a legal requirement, pursuant to subsection 46(8) of the CEPA 1999 and the Canada Gazette notice to retain a copy of the information on which the NPRI report was based. The owner or operator of a facility is required to keep copies of the required information, together with any calculations, measurements and other data on which the information is based. This information must be kept at the facility for a period of three (3) years.

### **1.4.2 O. REG. 127/01**

O. Reg. 127/01 requires the owner and operator of a facility to ensure that a copy of the report and any record prepared for the purpose of the report is kept for at least seven (7) years after the day the report is required to be submitted.

### **1.4.3 TRA - O. REG. 455/09**

O. Reg. 455/09 requires the owner and operator of a facility to ensure that a copy of the report and any record prepared for the purpose of the report is kept for at least seven (7) years after the date that the document or record is created or acquired.

**APPENDIX A**

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**CONFIRMATION OF SWIM SUBMISSION**

# Report Submission and Electronic Certification

## NPRI - Electronic Statement of Certification

Specify the language of correspondence

English

Comments (optional)

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.

I also acknowledge that the data will be made public.

Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company Name

Wallenstein Feed & Supply Ltd.

Certifying Official (or authorized delegate)

Richard Martin

Report Submitted by

Richard Martin

I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.

## ON MOE TRA - Electronic Certification Statement

### Annual Report Certification Statement

As of 01/06/2018, I, Richard Martin, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

### TRA Substance List

**CAS RN**

**Substance Name**

NA - 05

Cobalt (and its compounds)

NA - 06

Copper (and its compounds)

NA - 09

Manganese (and its compounds)

NA - 22

Phosphorus (total)

NA - M09

PM10 - Particulate Matter

NA - M10

PM2.5 - Particulate Matter

NA - 12

Selenium (and its compounds)

NA - 14

Zinc (and its compounds)

Company Name

Wallenstein Feed & Supply Ltd.

Highest Ranking Employee

Richard Martin

Report Submitted by

Richard Martin

Website address

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

## Submitted Report

Period	Submission Date	Facility Name	Province	City	Programs
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2017	01/06/2018	Monkton	Ontario	Monkton	NPRI, ON MOE TRA
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Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.

# National Pollutant Release Inventory (NPRI) and Partners



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SWIM > 2017 > Wallenstein Feed & Supply Ltd. > Monkton > Report Preview

## Report Preview

### Report Details

Report Year	2017
Report Type:	NPRI, ON MOE TRA
Report Status:	Submitted
Modified Date/Time:	01/06/2018 9:50 AM

### Company and Facility Details

Company Name:	Wallenstein Feed & Supply Ltd.
Business Number:	103361671
Mailing Address:	Delivery Mode: PostOfficeBox PO Box: 22 Address Line 1: 7307 86 Line City, Province/Territory, Postal Code: Wallenstein Ontario N0B2S0 Country: Canada
Facility Name:	Monkton
NAICS Code:	311119
NPRI ID:	11904
Physical Address:	Address Line 1: 132 Maddison Street West City, Province/Territory, Postal Code: Monkton Ontario N0K1P0 Country: Canada Latitude: 43.5904 Longitude: -81.0874

### Contacts Details

Contact Type	Technical Contact, Certifying Official, Highest Ranking Employee
Name:	Richard Martin
Position:	General Manager
Telephone:	5196695143
Email:	rickmartin@wfs.ca
Contact Type	Contractor Contact, Person who prepared the report, Person who coordinated the preparation of the Toxics Reduction Plan
Name:	Beth Rhyno
Position:	Sr. Environmental Engineer
Telephone:	5196507104
Email:	beth.rhyno@amecfw.com
Independent contractor/consultant company name:	Wood Environment & Infrastructure Solutions

## General Information

Number of employees:	16
Activities for Which the 20,000-Hour Employee Threshold Does Not Apply:	None of the above
Activities Relevant to Reporting Dioxins, Furans and Hexachlorobenzene:	None of the above
Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs):	Wood preservation using creosote: No
Is this the first time the facility is reporting to the NPRI (under current or past ownership):	No
Is the facility controlled by another Canadian company or companies:	No
Did the facility report under other environmental regulations or permits:	No
Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants):	Yes
Was the facility shut down for more than one week during the year:	No
Operating Schedule - Days of the Week:	Mon, Tue, Wed, Thu, Fri
Usual Number of Operating Hours per day:	10
Usual Daily Start Time (24h) (hh:mm):	07:00

## Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 05	Cobalt (and its compounds)	0.0000	N/A	N/A	N/A	kg
NA - 06	Copper (and its compounds)	0.0000	N/A	N/A	N/A	tonnes
NA - 09	Manganese (and its compounds)	0.0000	N/A	N/A	N/A	tonnes
NA - 22	Phosphorus (total)	0.0001	N/A	N/A	N/A	tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	0.6970	N/A	N/A	N/A	tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	0.1330	N/A	N/A	N/A	tonnes
NA - 12	Selenium (and its compounds)	N/A	N/A	N/A	N/A	kg
NA - 14	Zinc (and its compounds)	0.0000	N/A	N/A	N/A	tonnes

## Applicable Programs

CAS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	First report for this substance to the ON MOE TRA
NA - 05	Cobalt (and its compounds)	Yes	Yes		No
NA - 06	Copper (and its compounds)	Yes	Yes		No
NA - 09	Manganese (and its compounds)	Yes	Yes		No
NA - 22	Phosphorus (total)	Yes	Yes		No
NA - M09	PM10 - Particulate Matter <= 10 Microns	Yes	Yes		No
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Yes	Yes		No
NA - 12	Selenium (and its compounds)	Yes	Yes		No
NA - 14	Zinc (and its compounds)	Yes	Yes		No

## General Information about the Substance - Releases and Transfers of the Substance

CAS RN	Substance Name	Was the substance released on-site	The substance will be reported as the sum of releases to all media (total of 1 tonne or less)	1 tonne or more of a Part 5 Substance (Speciated VOC) was released to air
NA - 05	Cobalt (and its compounds)	Yes	No	No
NA - 06	Copper (and its compounds)	Yes	Yes	No
NA - 09	Manganese (and its compounds)	Yes	Yes	No
NA - 22	Phosphorus (total)	Yes	Yes	No
NA - 12	Selenium (and its compounds)	No	No	No
NA - 14	Zinc (and its compounds)	Yes	Yes	No

CAS RN	Substance Name	Was the substance released on-site	The substance will be reported as the sum of releases to all media (total of 1 tonne or less)	1 tonne or more of a Part 5 Substance (Speciated VOC) was released to air
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### General Information about the Substance - Disposals and Off-site Transfers for Recycling

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling
NA - 05	Cobalt (and its compounds)	No	No	No
NA - 06	Copper (and its compounds)	No	No	No
NA - 09	Manganese (and its compounds)	No	No	No
NA - 22	Phosphorus (total)	No	No	No
NA - 12	Selenium (and its compounds)	No	No	No
NA - 14	Zinc (and its compounds)	No	No	No

### General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
NA - 05	Cobalt (and its compounds)		As a formulation component	
NA - 06	Copper (and its compounds)		As a formulation component	
NA - 09	Manganese (and its compounds)		As a formulation component	
NA - 22	Phosphorus (total)		As a formulation component	
NA - 12	Selenium (and its compounds)		As a formulation component	
NA - 14	Zinc (and its compounds)		As a formulation component	

### TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 05	Cobalt (and its compounds)	Use	0.310 kg	Yes
NA - 05	Cobalt (and its compounds)	Creation	0.0 kg	No
NA - 05	Cobalt (and its compounds)	Contained in Product	0.310 kg	Yes
NA - 06	Copper (and its compounds)	Use	30.792 tonnes	Yes
NA - 06	Copper (and its compounds)	Creation	0 tonnes	Yes
NA - 06	Copper (and its compounds)	Contained in Product	30.792 tonnes	Yes
NA - 09	Manganese (and its compounds)	Use	45.379 tonnes	Yes
NA - 09	Manganese (and its compounds)	Creation	0 tonnes	Yes
NA - 09	Manganese (and its compounds)	Contained in Product	45.379 tonnes	Yes
NA - 22	Phosphorus (total)	Use	327.11 tonnes	Yes
NA - 22	Phosphorus (total)	Creation	0 tonnes	Yes
NA - 22	Phosphorus (total)	Contained in Product	327.11 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Use	0 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Creation	9.527 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Contained in Product		
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Use	0 tonnes	Yes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Creation	1.620 tonnes	Yes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Contained in Product		
NA - 12	Selenium (and its compounds)	Use	313 kg	Yes
NA - 12	Selenium (and its compounds)	Creation	0 kg	Yes
NA - 12	Selenium (and its compounds)	Contained in Product	313 kg	Yes
NA - 14	Zinc (and its compounds)	Use	91.445 tonnes	Yes
NA - 14	Zinc (and its compounds)	Creation	0 tonnes	Yes
NA - 14	Zinc (and its compounds)	Contained in Product	91.445 tonnes	Yes

### TRA Quantifications - Others

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
NA - 05	Cobalt (and its compounds)					No

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
NA - 06	Copper (and its compounds)					No
NA - 09	Manganese (and its compounds)					No
NA - 22	Phosphorus (total)					No
NA - M09	PM10 - Particulate Matter <= 10 Microns					No
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns					No
NA - 12	Selenium (and its compounds)					No
NA - 14	Zinc (and its compounds)					No

### On-site Releases - Releases to air

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 05	Cobalt (and its compounds)	Stack or Point Releases	E2 - Published Emission Factors		0.0000 kg
NA - M09	PM10 - Particulate Matter <= 10 Microns	Stack or Point Releases	E2 - Published Emission Factors		0.479 tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Road Dust	E2 - Published Emission Factors		0.218 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Stack or Point Releases	E2 - Published Emission Factors		0.081 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Road Dust	E2 - Published Emission Factors		0.052 tonnes

### On-site Releases - Releases to air - Total

CAS RN	Substance Name	Total - Releases to Air
NA - 05	Cobalt (and its compounds)	0.0000 kg
NA - M09	PM10 - Particulate Matter <= 10 Microns	0.697 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	0.133 tonnes

### Total Quantity Released (All Media)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 06	Copper (and its compounds)	Total Quantity Released	E2 - Published Emission Factors		0.0000 tonnes
NA - 09	Manganese (and its compounds)	Total Quantity Released	E2 - Published Emission Factors		0.0000 tonnes
NA - 22	Phosphorus (total)	Total Quantity Released	E2 - Published Emission Factors		0.0001 tonnes
NA - 14	Zinc (and its compounds)	Total Quantity Released	E2 - Published Emission Factors		0.0000 tonnes

### On-site Releases - Total

CAS RN	Substance Name	Total releases
NA - 05	Cobalt (and its compounds)	0.0000 kg

### On-site Releases - Quarterly Breakdown of Annual Releases

CAS RN	Substance Name	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NA - 22	Phosphorus (total)	25	25	25	25

### On-site Releases - Monthly Breakdown of Annual Releases

CAS RN	Substance Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
NA - M09	PM10 - Particulate Matter <= 10 Microns	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34

### On-site Releases - Reasons for Changes in Quantities Released from Previous Year

CAS RN	Substance Name	Reasons for Changes in Quantities from Previous Year	Comments
NA - 05	Cobalt (and its compounds)	No significant change (i.e. < 10%) or no change	
NA - 06	Copper (and its compounds)	No significant change (i.e. < 10%) or no change	
NA - 09	Manganese (and its compounds)	No significant change (i.e. < 10%) or no change	
NA - 12	Selenium (and its compounds)	No significant change (i.e. < 10%) or no change	

CAS RN	Substance Name	Reasons for Changes in Quantities from Previous Year	Comments
NA - 14	Zinc (and its compounds)	Other (specify in On-site Releases comment field)	changes in product specifications
NA - 22	Phosphorus (total)	No significant change (i.e. < 10%) or no change	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No significant change (i.e. < 10%) or no change	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No significant change (i.e. < 10%) or no change	

## Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities from Previous Year	Comments
NA - 05	Cobalt (and its compounds)		Not applicable (first year reporting this substance)	
NA - 06	Copper (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 09	Manganese (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 12	Selenium (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 14	Zinc (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 22	Phosphorus (total)		No significant change (i.e. < 10%) or no change	

## Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
NA - 05	Cobalt (and its compounds)		Not applicable (first year reporting this substance)	
NA - 06	Copper (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 09	Manganese (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 12	Selenium (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 14	Zinc (and its compounds)		No significant change (i.e. < 10%) or no change	
NA - 22	Phosphorus (total)		No significant change (i.e. < 10%) or no change	

## Comparison Report - Enters, Creation, Contained in Product

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 05	Cobalt (and its compounds)	No	Enters the facility (Use)	0.310 kg	0.243 kg	2016	0.067	27.57
NA - 05	Cobalt (and its compounds)	No	Creation	0.0 kg	0.0 kg	2016	0.0	
NA - 05	Cobalt (and its compounds)	No	Contained in Product	0.310 kg	0.243 kg	2016	0.067	27.57
NA - 06	Copper (and its compounds)	No	Enters the facility (Use)	30.792 tonnes	28.91 tonnes	2016	1.882	6.51
NA - 06	Copper (and its compounds)	No	Creation	0 tonnes	0 tonnes	2016	0	
NA - 06	Copper (and its compounds)	No	Contained in Product	30.792 tonnes	28.91 tonnes	2016	1.882	6.51
NA - 09	Manganese (and its compounds)	No	Enters the facility (Use)	45.379 tonnes	39.20 tonnes	2016	6.179	15.76
NA - 09	Manganese (and its compounds)	No	Creation	0 tonnes	0 tonnes	2016	0	
NA - 09	Manganese (and its compounds)	No	Contained in Product	45.379 tonnes	39.20 tonnes	2016	6.179	15.76
NA - 22	Phosphorus (total)	No	Enters the facility (Use)	327.11 tonnes	316.14 tonnes	2016	10.97	3.47
NA - 22	Phosphorus (total)	No	Creation	0 tonnes	0 tonnes	2016	0	
NA - 22	Phosphorus (total)	No	Contained in Product	327.11 tonnes	316.14 tonnes	2016	10.97	3.47
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Enters the facility (Use)	0 tonnes	0 tonnes	2016	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Creation	9.527 tonnes	9.670 tonnes	2016	-0.143	-1.48
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Enters the facility (Use)	0 tonnes	0 tonnes	2016	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Creation	1.620 tonnes	1.644 tonnes	2016	-0.024	-1.46
NA - 12	Selenium (and its compounds)	No	Enters the facility (Use)	313 kg	222 kg	2016	91	40.99
NA - 12	Selenium (and its compounds)	No	Creation	0 kg	0 kg	2016	0	
NA - 12	Selenium (and its compounds)	No	Contained in Product	313 kg	222 kg	2016	91	40.99
NA - 14	Zinc (and its compounds)	No	Enters the facility (Use)	91.445 tonnes	84.91 tonnes	2016	6.535	7.70
NA - 14	Zinc (and its compounds)	No	Creation	0 tonnes	0 tonnes	2016	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 14	Zinc (and its compounds)	No	Contained in Product	91.445 tonnes	84.91 tonnes	2016	6.535	7.70

### Comparison Report - Enters, Creation, Contained in Product : Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 05	Cobalt (and its compounds)	Other	Change in product specifications
NA - 06	Copper (and its compounds)	No reasons - quantities approximately the same	
NA - 09	Manganese (and its compounds)	Increase in production levels	
NA - 22	Phosphorus (total)	No reasons - quantities approximately the same	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No reasons - quantities approximately the same	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No reasons - quantities approximately the same	
NA - 12	Selenium (and its compounds)	Other	Change in product specifications
NA - 14	Zinc (and its compounds)	No reasons - quantities approximately the same	

### Comparison Report - On-site Releases

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 05	Cobalt (and its compounds)	No	Total Releases to Air	0.0000 kg	0.0000 kg	2016	0.0000	
NA - 05	Cobalt (and its compounds)	No	Total Releases to Water	0 kg	0 kg	2016	0	
NA - 05	Cobalt (and its compounds)	No	Total Releases to Land	0 kg	0 kg	2016	0	
NA - 05	Cobalt (and its compounds)	No	Total Releases to All Media	0 kg	0 kg	2016	0	
NA - 06	Copper (and its compounds)	No	Total Releases to Air	0 tonnes	0 tonnes	2016	0	
NA - 06	Copper (and its compounds)	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - 06	Copper (and its compounds)	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	
NA - 06	Copper (and its compounds)	No	Total Releases to All Media	0.0000 tonnes	0.00 tonnes	2016	0.0000	
NA - 09	Manganese (and its compounds)	No	Total Releases to Air	0 tonnes	0 tonnes	2016	0	
NA - 09	Manganese (and its compounds)	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - 09	Manganese (and its compounds)	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	
NA - 09	Manganese (and its compounds)	No	Total Releases to All Media	0.0000 tonnes	0.000 tonnes	2016	0.0000	
NA - 22	Phosphorus (total)	No	Total Releases to Air	0 tonnes	0 tonnes	2016	0	
NA - 22	Phosphorus (total)	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - 22	Phosphorus (total)	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	
NA - 22	Phosphorus (total)	No	Total Releases to All Media	0.0001 tonnes	0.0001 tonnes	2016	0.0000	0
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Air	0.697 tonnes	0.703 tonnes	2016	-0.006	-0.85
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to All Media	0 tonnes	0 tonnes	2016	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Air	0.133 tonnes	0.135 tonnes	2016	-0.002	-1.48
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to All Media	0 tonnes	0 tonnes	2016	0	
NA - 14	Zinc (and its compounds)	No	Total Releases to Air	0 tonnes	0 tonnes	2016	0	
NA - 14	Zinc (and its compounds)	No	Total Releases to Water	0 tonnes	0 tonnes	2016	0	
NA - 14	Zinc (and its compounds)	No	Total Releases to Land	0 tonnes	0 tonnes	2016	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 14	Zinc (and its compounds)	No	Total Releases to All Media	0.0000 tonnes	0.0000 tonnes	2016	0.0000	

## Comparison Report - On-site Releases - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 05	Cobalt (and its compounds)	Other	Change in product specifications
NA - 06	Copper (and its compounds)	No reasons - quantities approximately the same	
NA - 09	Manganese (and its compounds)	Increase in production levels	
NA - 22	Phosphorus (total)	No reasons - quantities approximately the same	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No reasons - quantities approximately the same	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No reasons - quantities approximately the same	
NA - 14	Zinc (and its compounds)	No reasons - quantities approximately the same	

## Pollution Prevention

Does the facility have a documented pollution prevention plan?

Yes

a) Please check all that apply

Plan was prepared or implemented on a voluntary basis.

b) Did the facility update their plan in the current reporting year?

Yes

c) Does the plan address substances, energy conservation, or water conservation?

Energy conservation  
Water conservation

Did the facility complete any pollution prevention activities in the current NPRI reporting year

No

## Progress on TRA Plan - Objectives

CAS RN	Substance Name	Objectives
NA - 05	Cobalt (and its compounds)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Cobalt is a 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 cobalt compounds 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.
NA - 06	Copper (and its compounds)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Copper is 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 copper, 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. Therefore, there are no options being implemented at this time.
NA - 09	Manganese (and its compounds)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Manganese is 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 manganese, 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. Therefore, there are no options being implemented at this time.
NA - 22	Phosphorus (total)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Phosphorus is 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 phosphorus, 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. Therefore, there are no options being implemented at this time.
NA - M09	PM10 - Particulate Matter <= 10 Microns	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. 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.
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. 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.
NA - 12	Selenium (and its compounds)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Selenium is 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 selenium, 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. Therefore,



CAS RN	Substance Name	Objectives
		there are no options being implemented at this time
NA - 14	Zinc (and its compounds)	All employees at WFS-Monkton will be involved in the reduction of toxic substance use, creation and releases. Zinc is 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 zinc, 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. Therefore, there are no options being implemented at this time

### Progress on TRA Plan - Use Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 05	Cobalt (and its compounds)	No quantity target	No timeline target	
NA - 06	Copper (and its compounds)	No quantity target	No timeline target	
NA - 09	Manganese (and its compounds)	No quantity target	No timeline target	
NA - 22	Phosphorus (total)	No quantity target	No timeline target	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No quantity target	No timeline target	
NA - 12	Selenium (and its compounds)	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	No quantity target	No timeline target	

### Progress on TRA Plan - Creation Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 05	Cobalt (and its compounds)	No quantity target	No timeline target	
NA - 06	Copper (and its compounds)	No quantity target	No timeline target	
NA - 09	Manganese (and its compounds)	No quantity target	No timeline target	
NA - 22	Phosphorus (total)	No quantity target	No timeline target	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No quantity target	No timeline target	
NA - 12	Selenium (and its compounds)	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	No quantity target	No timeline target	

### Progress on TRA Plan - Additional Actions

CAS RN	Substance Name	Were there any additional actions outside the plan taken during the reporting period to reduce the use and/or creation of the substance?	Describe any additional actions that were taken during the reporting period to achieve the plan's objectives	Provide a public summary of the description of the additional action taken
NA - 05	Cobalt (and its compounds)	No		
NA - 06	Copper (and its compounds)	No		
NA - 09	Manganese (and its compounds)	No		
NA - 22	Phosphorus (total)	No		
NA - M09	PM10 - Particulate Matter <= 10 Microns	No		
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No		
NA - 12	Selenium (and its compounds)	No		
NA - 14	Zinc (and its compounds)	No		

### Progress on TRA Plan - Reductions due to additional actions taken

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 05	Cobalt (and its compounds)	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 05	Cobalt (and its compounds)	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 05	Cobalt (and its compounds)	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the additional actions.	
NA - 05	Cobalt (and its compounds)	The amount of reduction in <b>release to air</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	





CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	Description any amendments that were made to the toxic substance reduction plan during the reporting period	Provide a public summary of the description of any amendments that were made to the toxic substance reduction plan during the reporting period
	compounds)			
NA - 22	Phosphorus (total)	No		
NA - M09	PM10 - Particulate Matter <= 10 Microns	No		
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No		
NA - 12	Selenium (and its compounds)	No		
NA - 14	Zinc (and its compounds)	No		

## Report Submission and Electronic Certification

### NPRI - Electronic Statement of Certification

Specify the language of correspondence

English

Comments (optional)

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.

I also acknowledge that the data will be made public.

Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company Name

Wallenstein Feed & Supply Ltd.

Certifying Official (or authorized delegate)

Richard Martin

Report Submitted by

Richard Martin

I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.

### ON MOE TRA - Electronic Certification Statement

#### Annual Report Certification Statement

As of 01/06/2018, I, Richard Martin, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

#### TRA Substance List

CAS RN	Substance Name
NA - 05	Cobalt (and its compounds)
NA - 06	Copper (and its compounds)
NA - 09	Manganese (and its compounds)
NA - 22	Phosphorus (total)
NA - M09	PM10 - Particulate Matter <= 10 Microns
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns
NA - 12	Selenium (and its compounds)
NA - 14	Zinc (and its compounds)

Company Name

Wallenstein Feed & Supply Ltd.

Highest Ranking Employee

Richard Martin

Report Submitted by

Richard Martin

Website address

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

## Submitted Report

Period	Submission Date	Facility Name	Province	City	Programs
2017	01/06/2018	Monkton	Ontario	Monkton	NPRI,ON MOE TRA

Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.

Version: 3.14.0



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## **APPENDIX B**

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**NPRI & O. REG. 127/01 CALCULATIONS**

**Part 1 Substance Releases**

Manganese	Emission Factor Reference	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox	0.0085	E	45.379	0.000386	0.000378	7.71E-06	tonnes	Baghouse
Storage (none)	NPRI Toolbox		E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox	0.0017	E	45.379	7.49E-05	7.338E-05	0.000001	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
<b>Manganese</b>					<b>4.61E-04</b>	<b>4.51E-04</b>	<b>9.21E-06</b>	<b>tonnes</b>	

Phosphorous	Emission Factor Reference	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox	0.0085	E	327.11	0.00278	0.0027248	5.56E-05	tonnes	Baghouse
Storage (none)	NPRI Toolbox		E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox	0.0017	E	327.11	5.40E-04	0.0005289	0.000011	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
<b>Phosphorous</b>					<b>3.32E-03</b>	<b>3.25E-03</b>	<b>6.64E-05</b>	<b>tonnes</b>	

Zinc	Emission Factor Reference	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox	0.0085	E	91.445	0.000777	0.0007617	1.55E-05	tonnes	Baghouse
Storage (none)	NPRI Toolbox		E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox	0.0017	E	91.445	1.51E-04	0.0001479	0.000003	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		E	0	0	0	0	tonnes	
<b>Zinc</b>					<b>9.28E-04</b>	<b>9.10E-04</b>	<b>1.86E-05</b>	<b>tonnes</b>	

Copper	Emission Factor Reference	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox	0.0085	E	30.792	0.000262	0.0002565	0.000005	tonnes	Baghouse
Storage (none)	NPRI Toolbox		E	0	0	0	0.000	tonnes	
Bagging/Shipping (none)	NPRI Toolbox	0.0017	E	30.792	0.00005	4.979E-05	0.000000	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
<b>Copper</b>					<b>3.13E-04</b>	<b>3.06E-04</b>	<b>6.25E-06</b>	<b>tonnes</b>	

Selenium	Emission Factor Reference	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox	0.0085	E	0.313	2.66E-06	2.607E-06	5.32E-08	tonnes	Baghouse
Storage (none)	NPRI Toolbox		E	0	0	0	0.000	tonnes	
Bagging/Shipping (none)	NPRI Toolbox	0.0017	E	0.313	5.16E-07	5.061E-07	1.03E-08	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		E	0	0.000	0	0.000	tonnes	
<b>Selenium</b>					<b>3.18E-06</b>	<b>3.11E-06</b>	<b>6.35E-08</b>	<b>tonnes</b>	

**Part 2 - 3 Substance Releases**

Substance Name	CAS Number	Emission Factor	EF** Units	Activity Rate from input tab	Total Release	Total Release to 3 decimals	Units
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No emission factors are available for Part 2 or 3 substance releases from feed mill operations.



**Part 4 Criteria Air Contaminants (CAC) Releases**

**Release Summary Chart**

Substance	Process	Road Dust	Combustion	Total	Units
Total Particulate Matter (TPM)	1.904	1.138	0.001	3.043	tonnes
Particulate Matter less than or equal to 10 µm (PM10)	0.476	0.218	0.001	0.694	tonnes
Particulate Matter less than or equal to 2.5 µm (PM2.5)	0.081	0.052	0.001	0.134	tonnes

Substance Name	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed (tonnes)	Released to Air (tonnes)	Pollution Control Present at Site
TPM - Grain Receiving (none)	NPRI Toolbox		0.0085	E	13825	0.118	0.115	0.002	Baghouse
TPM- Storage (none)	NPRI Toolbox		-	E	0	0	0	0	
TPM - Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	13825	0.023	0.022	0.000	Baghouse
TPM - Handling (none)	NPRI Toolbox		2.7500	E	13825	38.019	36.118	1.901	Cyclone
TPM - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	
TPM - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	
<b>Total TPM</b>						<b>38.159</b>	<b>36.255</b>	<b>1.904</b>	
PM10 - Grain Receiving (none)	NPRI Toolbox		0.00125	E	13825	0.017	0.017	0.000	Baghouse
PM10 - Storage (none)	NPRI Toolbox			E	0	0	0	0	
PM10 - Bagging/Shipping (none)	NPRI Toolbox		0.00040	E	13825	0.006	0.005	0.000	Baghouse
PM10 - Handling (none)	NPRI Toolbox		0.6875	E	13825	9.505	9.029	0.475	Cyclone
PM10 - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.01700	E		0	0	0	
PM10 - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.03750	E		0	0	0	
<b>Total PM10</b>						<b>9.527</b>	<b>9.052</b>	<b>0.476</b>	
PM2.5 - Grain Receiving (none)	NPRI Toolbox		0.0002	E	13825	0.003	0.003	0.000	Baghouse
PM2.5 - Storage (none)	NPRI Toolbox			E	0	0	0	0	
PM2.5 - Bagging/Shipping (none)	NPRI Toolbox		0.0001	E	13825	0.001	0.001	0.000	Baghouse
PM2.5 - Handling (none)	NPRI Toolbox		0.1169	E	13825	1.616	1.535	0.081	Cyclone
PM2.5 - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0029	E		0	0	0	
PM2.5 - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0064	E		0	0	0	
<b>Total PM2.5</b>						<b>1.620</b>	<b>1.539</b>	<b>0.081</b>	

**NOTES:**

Reference for all PM emission factors used is AP42 Grain Emissions  
 PM generated on-site calculated with emission factors and efficiencies specific to operations

- \* no single CAS Number applies to this substance
- \*\* EF = Emission Factor
- \*\*\* This uses a controlled emission factor

**Input Data**

	<b>Activity</b>	<b>Units</b>
<b>Amount of Propane Burned</b>	24	m <sup>3</sup>

**Part 4 Criteria Air Contaminants (CAC) Releases**

<b>Substance Name</b>	<b>CAS Number</b>	<b>Emission Factor</b>	<b>EF** units</b>	<b>EF Rating</b>	<b>Activity Rate from Input Tab</b>	<b>Total Release to 3 decimals</b>	<b>Units</b>
Carbon Monoxide (CO)	630-08-0	8.99E-01	kg/m <sup>3</sup>	E	24	<b>0.022</b>	tonnes
Oxides of Nitrogen, expressed as NO <sub>2</sub> (NO <sub>x</sub> )	11104-93-1	1.56E+00	kg/m <sup>3</sup>	E	24	<b>0.037</b>	tonnes
Total Particulate Matter (TPM)	*	2.40E-02	kg/m <sup>3</sup>	E	24	<b>0.001</b>	tonnes
Particulate Matter less than or equal to 10 µm (PM <sub>10</sub> )	*	2.40E-02	kg/m <sup>3</sup>	E	24	<b>0.001</b>	tonnes
Particulate Matter less than or equal to 2.5 µm (PM <sub>2.5</sub> )	*	2.40E-02	kg/m <sup>3</sup>	E	24	<b>0.001</b>	tonnes

\* no single CAS Number applies to this substance

\*\* EF = Emission Factor

**Part 5 Selected Volatile Organic Compounds Releases**

Substance Name	CAS Number	Percent of total VOCs	Total VOCs from Part 4	Total Release	Units	Total Release to 3 decimals	Units
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VOCs are not released during feed manufacturing therefore a report is not required for part 5 VOCs.

## **APPENDIX C**

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### **TRA CALCULATIONS**

Overall Process Description: Formulation of animal feed ingredients.

Part 1A

Manganese	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	45.379	0.0004	0.0004	7.71E-06	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	45.379	7.49E-05	7.33778E-05	1.50E-06	tonnes	Baghouse Cyclone
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Manganese</b>						<b>0.00046</b>	<b>0.00045</b>	<b>0.00001</b>	<b>tonnes</b>	

Phosphorous	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	327.11	0.0028	0.0027	5.56E-05	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	327.11	5.40E-04	0.000528937	1.08E-05	tonnes	Baghouse Cyclone
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Phosphorous</b>						<b>0.0033</b>	<b>0.0033</b>	<b>0.0001</b>	<b>tonnes</b>	

Zinc	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	91.445	0.0008	0.0008	1.55E-05	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	91.445	1.51E-04	0.000147867	3.02E-06	tonnes	Baghouse Cyclone
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Zinc</b>						<b>0.0009</b>	<b>0.0009</b>	<b>0.00002</b>	<b>tonnes</b>	

Copper	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	30.792	0.0003	0.0003	5.23E-06	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	30.792	5.08E-05	4.97907E-05	1.02E-06	tonnes	Baghouse Cyclone
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Copper</b>						<b>0.00031</b>	<b>0.00031</b>	<b>0.00001</b>	<b>tonnes</b>	

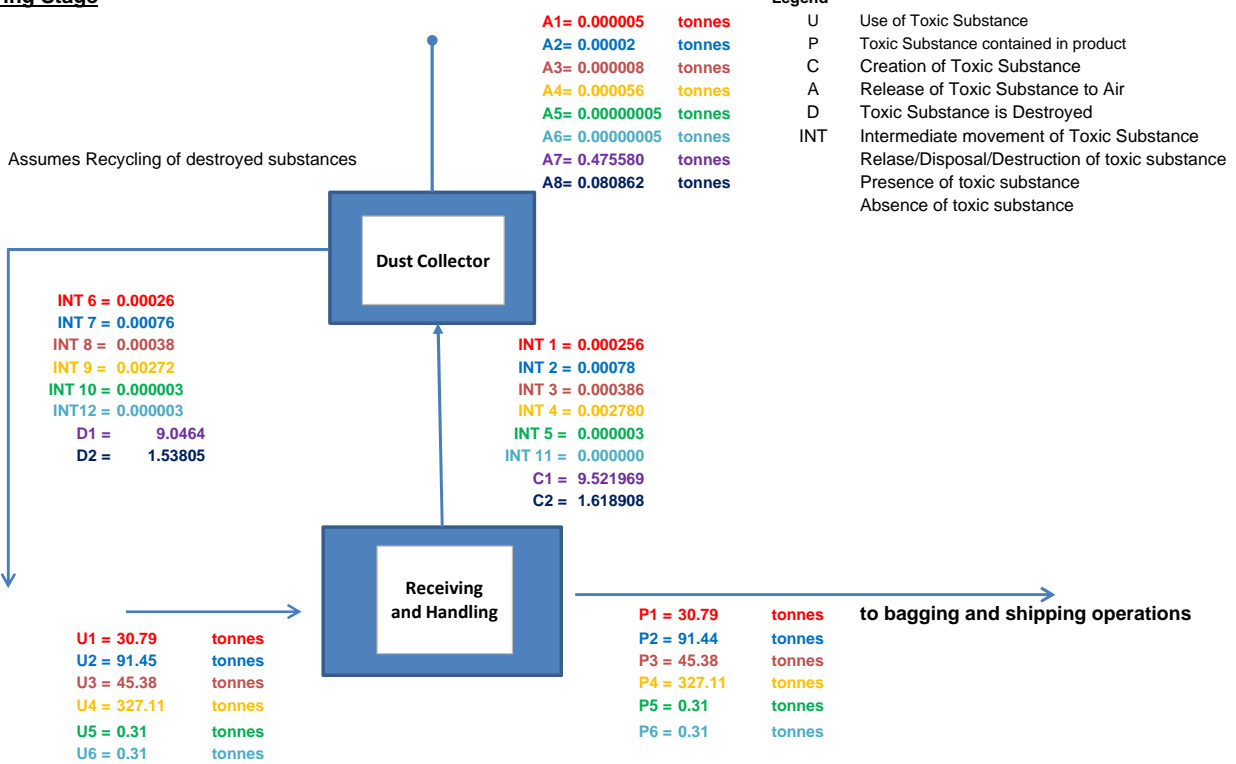
Selenium	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	0.313	2.66E-06	2.61E-06	5.32E-08	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	0.313	5.16E-07	5.06121E-07	1.03E-08	tonnes	Baghouse Cyclone
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Selenium</b>						<b>0.000003</b>	<b>0.000003</b>	<b>0.000001</b>	<b>tonnes</b>	

Cobalt	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed	Released to Air	Units	Pollution Control Present at Site
Grain Receiving (none)	NPRI Toolbox		0.0085	E	0.31	0.0000	0.0000	5.27E-08	tonnes	Baghouse
Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	0.31	5.12E-07	5.0127E-07	1.02E-08	tonnes	Baghouse
Pellet Cooler (Cyclone)	NPRI Toolbox		2.7500	E	0	0	0	0	tonnes	Cyclone
Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Cobalt</b>						<b>0.000003</b>	<b>0.000003</b>	<b>0.0000001</b>	<b>tonnes</b>	

**Part 4**

Substance Name	Emission Factor Reference	Emission Factor (lb/ton)	Emission Factor (kg/tonne)	EF Rating	Activity Rate from Input Tab (tonnes)	Created (tonnes)	Destroyed (tonnes)	Released to Air (tonnes)	Units	Pollution Control Present at Site
TPM - Grain Receiving (none)	NPRI Toolbox		0.0085	E	13825	0.118	0.115	0.002	tonnes	Baghouse
TPM- Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
TPM - Bagging/Shipping (none)	NPRI Toolbox		0.0017	E	13825	0.023	0.022	0.000	tonnes	Baghouse
TPM - Handling (none)	NPRI Toolbox		2.7500	E	13825	38.019	36.118	1.901	tonnes	Cyclone
TPM - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0335	E	0	0	0	0	tonnes	
TPM - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0750	E	0	0	0	0	tonnes	
<b>Total TPM</b>						<b>38.159</b>	<b>36.255</b>	<b>1.904</b>	<b>tonnes</b>	
PM10 - Grain Receiving (none)	NPRI Toolbox		0.00125	E	13825	0.017	0.017	0.000	tonnes	Baghouse
PM10 - Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
PM10 - Bagging/Shipping (none)	NPRI Toolbox		0.00040	E	13825	0.006	0.005	0.000	tonnes	Baghouse
PM10 - Handling (none)	NPRI Toolbox		0.6875	E	13825	9.505	9.029	0.475	tonnes	Cyclone
PM10 - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.01700	E	0	0	0	0	tonnes	
PM10 - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.03750	E	0	0	0	0	tonnes	
<b>Total PM10</b>						<b>9.527</b>	<b>9.052</b>	<b>0.476</b>	<b>tonnes</b>	
PM2.5 - Grain Receiving (none)	NPRI Toolbox		0.0002	E	13825	0.003	0.003	0.000	tonnes	Baghouse
PM2.5 - Storage (none)	NPRI Toolbox			E	0	0	0	0	tonnes	
PM2.5 - Bagging/Shipping (none)	NPRI Toolbox		0.0001	E	13825	0.001	0.001	0.000	tonnes	Baghouse
PM2.5 - Handling (none)	NPRI Toolbox		0.1169	E	13825	1.616	1.535	0.081	tonnes	Cyclone
PM2.5 - Grain Milling: Hammermill (baghouse)	NPRI Toolbox		0.0029	E	0	0	0	0	tonnes	
PM2.5 - Grain Milling: Flaker (Cyclone)	NPRI Toolbox		0.0064	E	0	0	0	0	tonnes	
<b>Total PM2.5</b>						<b>1.620</b>	<b>1.539</b>	<b>0.081</b>	<b>tonnes</b>	

**Receiving Stage**



Annual Basis		Copper	
	Tonnes	Calculation	Method
U1	30.79	total of Copper as received in ingredient	Ingredient MSDS
P1	30.79	total of Copper as received in ingredient	Ingredient MSDS
A1	0.000005	total of Copper released to air	Efficiency, emission factor
INT1	0.0002617	total of Copper present in PM created	Quantity and emission factor
INT6	0.0002565	total of Copper collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		Zinc	
	Tonnes	Calculation	Method
U2	91.45	total of Zinc as received in ingredient	Ingredient MSDS
P2	91.44	total of Zinc as received in ingredient	Ingredient MSDS
A2	0.00002	total of Zinc released to air	Efficiency, emission factor
INT2	0.00078	total of Zinc present in PM created	Quantity and emission factor
INT7	0.00076	total of Zinc collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		Manganese	
	Tonnes	Calculation	Method
U3	45.38	total of Manganese as received in ingredient	Ingredient MSDS
P3	45.38	total of Manganese as received in ingredient	Ingredient MSDS
A3	0.00	total of Manganese released to air	Efficiency, emission factor
INT3	0.00	total of Manganese present in PM created	Quantity and emission factor
INT8	0.00	total of Manganese collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		Phosphorus	
	Tonnes	Calculation	Method
U4	327.11	total of Phosphorus as received in ingredient	Ingredient MSDS
P4	327.11	total of Phosphorus as received in ingredient	Ingredient MSDS
A4	0.00	total of Phosphorous released to air	Efficiency, emission factor
INT4	0.00	total of Phosphorous present in PM created	Quantity and emission factor
INT9	0.00	total of Phosphorus collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		Selenium	
	Tonnes	Calculation	Method
U5	0.31	total of Selenium as received in ingredient	Ingredient MSDS
P5	0.31	total of Selenium as received in ingredient	Ingredient MSDS
A5	0.00	total of Selenium released to air	Efficiency, emission factor
INT5	0.00	total of Selenium present in PM created	Quantity and emission factor
INT10	0.00	total of Selenium collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		Cobalt	
	Tonnes	Calculation	Method
U6	0.31	total of Cobalt as received in ingredient	Ingredient MSDS
P6	0.31	total of Cobalt as received in ingredient	Ingredient MSDS
A6	0.00	total of Cobalt released to air	Efficiency, emission factor

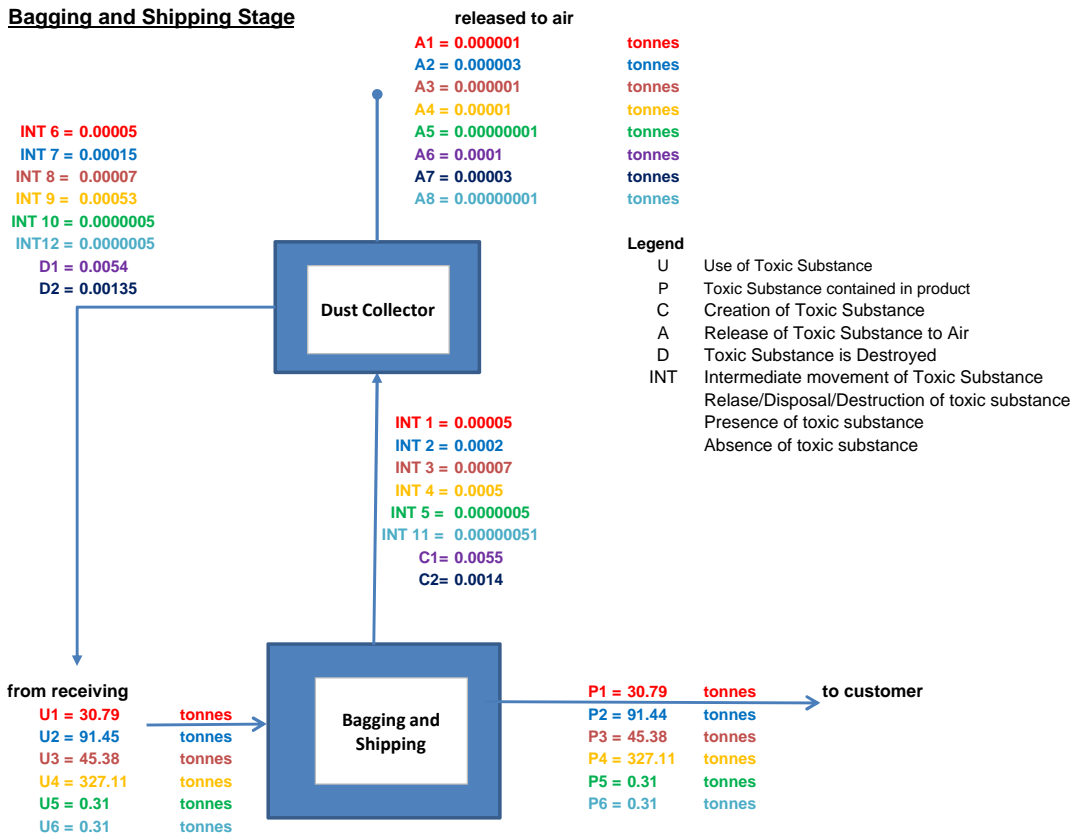
INT11	0.00	total of Cobalt present in PM created	Quantity and emission factor
INT12	0.00	total of Cobalt collected in dust collector and recycled	Efficiency, emission factor

Annual Basis		PM10	
	Tonnes	Calculation	Method
C1	9.5220	Amount of PM10 created during receiving and handling	Total throuput, emission factors
A7	0.4756	Amount of PM10 released to air from the dust collector	Total throuput, emission factors
D1	9.0464	Amount of of PM10 destroyed in the dust collector	Efficiency, emission factor

Annual Basis		PM2.5	
	Tonnes	Calculation	Method
C2	1.61891	Amount of PM2.5 created during receiving and handling	Total throuput, emission factors
A8	0.08086	Amount of PM2.5 released to air from the dust collector	Total throuput, emission factors
D2	1.53805	Amount of of PM2.5 destroyed in the dust collector	Efficiency, emission factor



**Bagging and Shipping Stage**



Annual Basis		Copper	
Tonnes	Calculation	Method	
U1 = 30.79	total of Copper as received in ingredient	Ingredient MSDS	
P1 = 30.79	total of Copper as received in ingredient	Ingredient MSDS	
A1 = 0.000001	total of Copper released to air	Efficiency, emission factor	
INT1 = 0.000051	total of Copper present in PM created	Ingredient MSDS	
INT6 = 0.00005	total of Copper collected in dust collector and recycled	Efficiency, emission factor	

Annual Basis		Zinc	
Tonnes	Calculation	Method	
U2 = 91.44	total of Zinc as received in ingredient	Ingredient MSDS	
P2 = 91.44	total of Zinc as received in ingredient	Ingredient MSDS	
A2 = 0.0000	total of Zinc released to air	Efficiency, emission factor	
INT2 = 0.0002	total of Zinc present in PM created	Ingredient MSDS	
INT7 = 0.0001	total of Zinc collected in dust collector and recycled	Efficiency, emission factor	

Annual Basis		Manganese	
Tonnes	Calculation	Method	
U3 = 45.38	total of Manganese as received in ingredient	Ingredient MSDS	
P3 = 45.38	total of Manganese as received in ingredient	Ingredient MSDS	
A3 = 0.0000	total of Manganese released to air	Efficiency, emission factor	
INT3 = 0.00007	total of Manganese present in PM created	Ingredient MSDS	
INT8 = 0.00007	total of Manganese collected in dust collector and recycled	Efficiency, emission factor	

Annual Basis		Phosphorus	
Tonnes	Calculation	Method	
U4 = 327.11	total of Phosphorus as received in ingredient	Ingredient MSDS	
P4 = 327.11	total of Phosphorus as received in ingredient	Ingredient MSDS	
A4 = 0.0000	total of Phosphorus released to air	Efficiency, emission factor	
INT4 = 0.0005	total of Phosphorus present in PM created	Ingredient MSDS	
INT9 = 0.0005	total of Phosphorus collected in dust collector and recycled	Efficiency, emission factor	

Annual Basis		Selenium	
Tonnes	Calculation	Method	
U5 = 0.3130	total of Selenium as received in ingredient	Ingredient MSDS	
P5 = 0.3130	total of Selenium as received in ingredient	Ingredient MSDS	
A5 = 0.000000	total of Selenium released to air	Efficiency, emission factor	
INT5 = 0.0000005	total of Selenium present in PM created	Ingredient MSDS	
INT10 = 0.0000005	total of Selenium collected in dust collector and recycled	Efficiency, emission factor	

Annual Basis		Cobalt
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	Tonnes	Calculation	Method
U6	0.31	total of Cobalt as received in ingredient	Ingredient MSDS
P6	0.31	total of Cobalt as received in ingredient	Ingredient MSDS
A8	0.0000000	total of Cobalt released to air	Efficiency, emission factor
INT11	0.0000005	total of Cobalt present in PM created	Ingredient MSDS
INT12	0.0000005	total of Cobalt collected in dust collector and recycled	Efficiency, emission factor

**Annual Basis** **PM10**

	Tonnes	Calculation	Method
C1	0.0055	Amount of PM10 created during receiving and handling	Total throuput, emission factors
A6	0.0001	Amount of PM10 released to air from the dust collector	Total throuput, emission factors
D1	0.0054	Amount of of PM10 destroyed in the dust collector	Total throuput, emission factors

**Annual Basis** **PM2.5**

	Tonnes	Calculation	Method
C2	0.0014	Amount of PM2.5 created during receiving and handling	Total throuput, emission factors
A7	0.0000	Amount of PM2.5 released to air from the dust collector	Total throuput, emission factors
D2	0.0014	Amount of of PM2.5 destroyed in the dust collector	Total throuput, emission factors

## **APPENDIX D**

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**TRA ANNUAL PUBLIC SUMMARY REPORT**

**TRA ANNUAL SUMMARY**  
**OPERATIONAL COMPARISON 2016-2017**

**BASIC FACILITY INFORMATION**

Company Name: Wallenstein Feed & Supply Limited  
Monkton Operations

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

Contact Information: Craig Foster  
Operations Manager  
519-669-5143  
[craigfoster1@wfs.ca](mailto:craigfoster1@wfs.ca)

Certifying Official: Craig Foster  
Operations Manager  
519-669-5143  
[craigfoster@wfs.ca](mailto:craigfoster@wfs.ca)

Parent Company: Wallenstein Feed & Supply Limited  
100% ownership

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

The facility's NPRI ID: 10904

In 2017, 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 2017 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, Conservation and Parks (MECP) 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 2017 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 2017 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)	2017 Used (tonnes)	Used 2016 - Last Reported Value	% Change	2017 Created (tonnes)	Created 2016 - Last Reported Value	% Change	2017 Contained In Product (tonnes)	Contained in Product 2016- 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	6.51%	0.00	0.00	0.00%	>10-100	>10-100	6.51%	Increase in Production
NA-09	Manganese (and its compounds)	Used as a formulation component	Part 1	10 (MPO)	>10-100	>10-100	15.8%	0.00	0.00	0.00%	>10-100	>10-100	15.8%	Increase in Production
NA-14	Zinc (and its compounds)	Used as a formulation component	Part 1	10 (MPO)	>10-100	>10-100	7.69%	0.00	0.00	0.00%	>10-100	>10-100	7.69%	Increase in Production
NA-12	Selenium (and its compounds)	Used as a formulation component	Part 1	0.100 (MPO)	>0.100-10	>0.100-10	41.0%	0.00	0.00	0.00%	>0.100-10	>0.100-10	41.0%	Increase in Production
NA-22	Phosphorous (total)	Used as a formulation component	Part 1	10 (MPO)	>100-1000	>100-1000	3.47%	0.00	0.00	0.00%	>100-1000	>100-1000	3.47%	Increase in Production
NA-05	Cobalt (and its compounds)	Used as a formulation component	Part 1B	0.05 (MPO)	>0.100-10	>0.100-10	27.6%	0.00	0.00	0.00%	>0.100-10	>0.100-10	27.57%	Increase in Production
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	-1.71%	0.00	0.00	0.00%	No significant change
NA-M09	PM10 - Particulate Matter	Grain Processing, Supporting Operations	Part 4	0.5 (Release)	0.00	0.00	0.00%	>1-10	>1-10	-1.71%	0.00	0.00	0.00%	No significant change

## **COMPARISON OF TRACKING AND QUANTIFICATION**

No changes were made in the quantification and tracking methodology from 2016 to 2017.

## **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 2017.



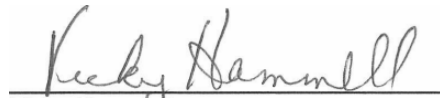
**Table 2: Changes in Quantifications, Quantities and Plan Updates**

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	No reduction options were identified to be both technically and economically feasible. Therefore, no options were chosen for implementation.	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

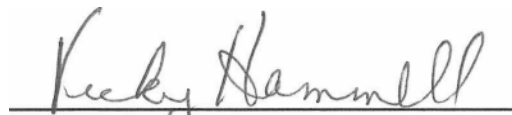


Vicky Hammell  
Operations Manager  
Wallenstein Feed & Supply Ltd.

**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 complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

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

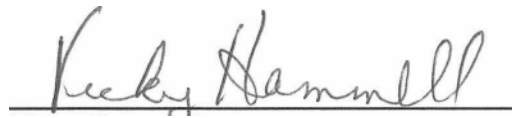


Vicky Hammell  
Operations Manager  
Wallenstein Feed & Supply Ltd.

**CERTIFICATION OF HIGHEST RANKING EMPLOYEE**

As of 30 December 2017, 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 complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Cobalt	NA-05
Added to the existing Plan for:	
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



Vicky Hammell  
Operations Manager  
Wallenstein Feed & Supply Ltd.