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## Report Preview

### Report Details

Report Year:	2015
Report Type:	NPRI,ON MOE TRA
Report Status:	Update 1 - Submitted
Modified Date/Time:	23/06/2016 3:13 PM
Report Update Comments:	Additional information on chemical usage.

### Company and Facility Details

Company Name:	AZZ Galvanizing Services-Galvcast
Business Number:	221029143
Mailing Address:	Delivery Mode: GeneralDelivery Address Line 1: 49 Commerce Crescent City, Province/Territory, Postal Code: Acton Ontario L7J2X2 Country: Canada
Facility Name:	AZZ Galvcast Canada
NAICS Code:	332810
NPRI ID:	5626
Physical Address:	Address Line 1: 49 Commerce Crescent City, Province/Territory, Postal Code: Acton Ontario L7J2X2 Country: Canada Latitude: 43.64160 Longitude: -80.05130 UTM Zone: 17 UTM Easting: 576518 UTM Northing: 4332505

### Parent Companies

Company Name:	AZZ Blenkhorn & Sawle Limited
Business Number:	859454696
Mailing Address:	Delivery Mode: PostOfficeBox PO Box: 7289 Address Line 1: 20 Myler Street City, Province/Territory, Postal Code: Saint John NewBrunswick E2L4S6 Country: Canada

## Permits

Number or Permit Number:

pending

Government Department, Agency, or Program Name:

pending

## Contacts Details

Contact Type

Technical Contact, Company Coordinator, Public Contact

Name:

Jason Pence

Position:

EHS Director

Telephone:

8178100095

Email:

jasonpence@azz.com

Contact Type

Certifying Official, Highest Ranking Employee

Name:

Joseph Mancuso

Position:

Regional Director

Telephone:

5143229120

Email:

josephmancuso@azzgalv.com

Contact Type

Person who prepared the report, Person who coordinated the preparation of the Toxics Reduction Plan

Name:

Frank Gaudet

Position:

Environmental Engineer

Telephone:

8178100095

Email:

frankgaudet@azz.com

Mailing Address:

Delivery Mode: GeneralDelivery  
 Address Line 1: 500 - 3100 7th Street West  
 City, Province/Territory, Postal Code: Fort Worth Texas 76107  
 Country: UnitedStates

## General Information

Number of employees:

154

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:

Yes

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, Sat, Sun

Usual Number of Operating Hours per day:

24

Usual Daily Start Time (24h) (hh:mm):

06:00

## Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 16	Ammonia (total)	6.7000	N/A	13.9900	N/A	tonnes
NA - 19	Hexavalent chromium (and its compounds)	N/A	N/A	N/A	N/A	kg
7647-01-0	Hydrochloric acid	1.2100	N/A	9.8200	N/A	tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	5.7060	N/A	N/A	N/A	tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	4.6800	N/A	N/A	N/A	tonnes
NA - 14	Zinc (and its compounds)	1.1130	N/A	31.0700	491.6000	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 - 16	Ammonia (total)	Yes	Yes		No
NA - 19	Hexavalent chromium (and its compounds)	Yes	Yes		No
7647-01-0	Hydrochloric acid	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 - 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 - 16	Ammonia (total)	Yes	No	No
NA - 19	Hexavalent chromium (and its compounds)	No	No	No
7647-01-0	Hydrochloric acid	Yes	No	No
NA - 14	Zinc (and its compounds)	Yes	No	No

## 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 - 16	Ammonia (total)	Yes	No	No
NA - 19	Hexavalent chromium (and its compounds)	No	No	No
7647-01-0	Hydrochloric acid	Yes	No	No
NA - 14	Zinc (and its compounds)	Yes	No	Yes

## General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
NA - 16	Ammonia (total)		As a reactant	As a physical or chemical processing aid
NA - 19	Hexavalent chromium (and its compounds)		As an article component	As a physical or chemical processing aid
7647-01-0	Hydrochloric acid		As a reactant	As a physical or chemical processing aid
NA - 14	Zinc (and its compounds)	For on-site use/processing	As a formulation component As an article component	

## Substances added to/removed from the report

CAS RN	Substance Name	Added/Removed	Comment
NA - 19	Hexavalent chromium (and its compounds)	Added	Additional data on chemical usage became available after the initial report was submitted.

## TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 16	Ammonia (total)	Use	20.71 tonnes	Yes
NA - 16	Ammonia (total)	Creation	0 tonnes	Yes

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 16	Ammonia (total)	Contained in Product	0 tonnes	Yes
NA - 19	Hexavalent chromium (and its compounds)	Use	950 kg	No
NA - 19	Hexavalent chromium (and its compounds)	Creation	0 kg	No
NA - 19	Hexavalent chromium (and its compounds)	Contained in Product	950 kg	No
7647-01-0	Hydrochloric acid	Use	184.58 tonnes	Yes
7647-01-0	Hydrochloric acid	Creation	0 tonnes	Yes
7647-01-0	Hydrochloric acid	Contained in Product	0 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Use	0 tonnes	No
NA - M09	PM10 - Particulate Matter <= 10 Microns	Creation	5.707 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	4.68 tonnes	Yes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Contained in Product		
NA - 14	Zinc (and its compounds)	Use	1858.75 tonnes	Yes
NA - 14	Zinc (and its compounds)	Creation	0 tonnes	Yes
NA - 14	Zinc (and its compounds)	Contained in Product	1296.7 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 - 16	Ammonia (total)	Included ammonium hydroxide in total.	A result of review of the current version of the toxic substance reduction plan for the substance under section 7 of the Act	The total ammonia now includes ammonium hydroxide used at the plant.		No
NA - 19	Hexavalent chromium (and its compounds)					No
7647-01-0	Hydrochloric acid					No
NA - M09	PM10 - Particulate Matter <= 10 Microns					No
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns					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 - 16	Ammonia (total)	Fugitive Releases	C - Mass Balance		6.7 tonnes
7647-01-0	Hydrochloric acid	Storage or Handling Releases	O - Engineering Estimates		0.1 tonnes
7647-01-0	Hydrochloric acid	Other Non-point Releases	O - Engineering Estimates		1.11 tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Stack or Point Releases	E2 - Published Emission Factors		0.744 tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Fugitive Releases	E2 - Published Emission Factors		4.962 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Stack or Point Releases	E2 - Published Emission Factors		0.61 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Fugitive Releases	E2 - Published Emission Factors		4.07 tonnes
NA - 14	Zinc (and its compounds)	Stack or Point Releases	O - Engineering Estimates		0.145 tonnes
NA - 14	Zinc (and its compounds)	Fugitive Releases	O - Engineering Estimates		0.968 tonnes

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

CAS RN	Substance Name	Total - Releases to Air
NA - 16	Ammonia (total)	6.7 tonnes
7647-01-0	Hydrochloric acid	1.21 tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	5.706 tonnes
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	4.68 tonnes
NA - 14	Zinc (and its compounds)	1.113 tonnes

## On-site Releases - Total

CAS RN	Substance Name	Total releases
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CAS RN	Substance Name	Total releases
NA - 16	Ammonia (total)	6.7 tonnes
7647-01-0	Hydrochloric acid	1.21 tonnes
NA - 14	Zinc (and its compounds)	1.113 tonnes

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

CAS RN	Substance Name	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NA - 16	Ammonia (total)	25	25	25	25
7647-01-0	Hydrochloric acid	25	25	25	25
NA - 14	Zinc (and its compounds)	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
7647-01-0	Hydrochloric acid	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 - 16	Ammonia (total)	Changes in production levels	
NA - 19	Hexavalent chromium (and its compounds)	No significant change (i.e. < 10%) or no change	Report shows total weight of chromic acid purchased.
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changes in production levels	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Changes in production levels	

## Disposals - Off-site Disposal (excluding Tailings and Waste Rock)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 16	Ammonia (total)	Landfill	O - Engineering Estimates		13.99 tonnes
NA - 14	Zinc (and its compounds)	Landfill	O - Engineering Estimates		31.07 tonnes

## Disposals - Off-site Disposal (excluding Tailings and Waste Rock) - Total

CAS RN	Substance Name	Total - Off-site Disposals
NA - 16	Ammonia (total)	13.99 tonnes
NA - 14	Zinc (and its compounds)	31.07 tonnes

## Disposals - Off-site Disposal (excluding Tailings and Waste Rock) - By Facilities

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
NA - 14	Zinc (and its compounds)	Landfill	Panda Environmental	132 Earl Thompson Place, North Dumphries, ON, Canada	1.60 tonnes
NA - 14	Zinc (and its compounds)	Landfill	US Ecology	6520 Georgia St, Detroit, MI, USA	29.47 tonnes
NA - 16	Ammonia (total)	Landfill	Panda Environmental	132 Earl Thompson Place, North Dumphries, ON, Canada	13.99 tonnes

## Disposals - Off-site Transfers (excluding Tailings and Waste Rock)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
7647-01-0	Hydrochloric acid	Chemical Treatment	O - Engineering Estimates		9.82 tonnes

## Disposals - Off-site Transfers (excluding Tailings and Waste Rock) - Total

CAS RN	Substance Name	Total - Treatment Prior to Final Disposal
7647-01-0	Hydrochloric acid	9.82 tonnes

## Disposals - Off-site Transfers (excluding Tailings and Waste Rock) - By Facilities

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
7647-01-0	Hydrochloric acid	Chemical Treatment	US Ecology	6520 Georgia St, Detroit, MI, USA	9.82 tonnes

## Disposals - Total Quantity Disposed (All Media)

CAS RN	Substance Name	Total Quantity Disposed (All Media)
NA - 16	Ammonia (total)	13.99 tonnes
7647-01-0	Hydrochloric acid	9.82 tonnes
NA - 14	Zinc (and its compounds)	31.07 tonnes

## Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities from Previous Year	Comments
7647-01-0	Hydrochloric acid	Contaminated materials	Changes in production levels Pollution prevention activities	The shop uses the Kleingarn Curve to optimize acid usage.
NA - 14	Zinc (and its compounds)	Production residues	Changes in production levels	
NA - 16	Ammonia (total)	Production residues	Changes in production levels	
NA - 19	Hexavalent chromium (and its compounds)		No significant change (i.e. < 10%) or no change	

## Recycling - Off-site Transfers for Recycling

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 14	Zinc (and its compounds)	Recovery of Metals and Metal Compounds	O - Engineering Estimates		491.6 tonnes

## Recycling - Off-site Transfers for Recycling - Total

CAS RN	Substance Name	Total - Off-site Transfers for Recycling
NA - 14	Zinc (and its compounds)	491.6 tonnes

## Recycling - Off-site Transfers for Recycling - By Facility

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
NA - 14	Zinc (and its compounds)	Recovery of Metals and Metal Compounds	Umicore Marketing	3600 Glenwood Ave., Raleigh, NC, United States	266.2 tonnes
NA - 14	Zinc (and its compounds)	Recovery of Metals and Metal Compounds	Richker Metals	2932 Danalda Dr., Los Angeles, CA, United States	225.4 tonnes

## Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
7647-01-0	Hydrochloric acid		Changes in production levels Pollution prevention activities	
NA - 14	Zinc (and its compounds)	Production Residues	Other (specify in recycling comments field)	Plant produced more dross and ash than last year.
NA - 16	Ammonia (total)		No significant change (i.e. < 10%) or no change	
NA - 19	Hexavalent chromium (and its compounds)		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 - 16	Ammonia (total)	No	Enters the facility (Use)	20.71 tonnes	12.35 tonnes	2014	8.36	67.69
NA - 16	Ammonia (total)	No	Creation	0 tonnes	0 tonnes	2014	0	
NA - 16	Ammonia (total)	No	Contained in Product	0 tonnes	0 tonnes	2014	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Enters the facility (Use)	950 kg	1900 kg	2014	-950	-50.0
NA - 19	Hexavalent chromium (and its compounds)	No	Creation	0 kg	0 kg	2014	0	
NA - 19	Hexavalent chromium (and its compounds)	No	Contained in Product	950 kg	1885 kg	2014	-935	-49.60
7647-01-0	Hydrochloric acid	No	Enters the facility (Use)	184.58 tonnes	363.8 tonnes	2014	-179.22	-49.26
7647-01-0	Hydrochloric acid	No	Creation	0 tonnes	0 tonnes	2014	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
7647-01-0	Hydrochloric acid	No	Contained in Product	0 tonnes	0 tonnes	2014	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Enters the facility (Use)	0 tonnes	0 tonnes	2014	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Creation	5.707 tonnes	6.419 tonnes	2014	-0.712	-11.09
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Enters the facility (Use)	0 tonnes	0 tonnes	2014	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Creation	4.68 tonnes	5.26 tonnes	2014	-0.58	-11.03
NA - 14	Zinc (and its compounds)	No	Enters the facility (Use)	1858.75 tonnes	1875.12 tonnes	2014	-16.37	-0.87
NA - 14	Zinc (and its compounds)	No	Creation	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Contained in Product	1296.7 tonnes	1393.82 tonnes	2014	-97.12	-6.97

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

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 16	Ammonia (total)	Change in quantification methodology Other	Included ammonium hydroxide w total ammonia
NA - 19	Hexavalent chromium (and its compounds)	No reasons - quantities approximately the same	
7647-01-0	Hydrochloric acid	Decrease in production levels Implementation of toxics reduction option(s)	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No reasons - quantities approximately the same	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	Decrease in production levels	
NA - 14	Zinc (and its compounds)	Decrease in production levels	

## 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 - 16	Ammonia (total)	No	Total Releases to Air	6.7 tonnes	11.09 tonnes	2014	-4.39	-39.59
NA - 16	Ammonia (total)	No	Total Releases to Water	0 tonnes	0 tonnes	2014	0	
NA - 16	Ammonia (total)	No	Total Releases to Land	0 tonnes	0 tonnes	2014	0	
NA - 16	Ammonia (total)	No	Total Releases to All Media	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Releases to Air	1.21 tonnes	1.21 tonnes	2014	0.00	0
7647-01-0	Hydrochloric acid	No	Total Releases to Water	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Releases to Land	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Releases to All Media	0 tonnes	0 tonnes	2014	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Air	5.706 tonnes	6.42 tonnes	2014	-0.714	-11.12
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Water	0 tonnes	0 tonnes	2014	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Land	0 tonnes	0 tonnes	2014	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to All Media	0 tonnes	0 tonnes	2014	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Air	4.68 tonnes	5.26 tonnes	2014	-0.58	-11.03
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Water	0 tonnes	0 tonnes	2014	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to Land	0 tonnes	0 tonnes	2014	0	
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns	No	Total Releases to All Media	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total Releases to Air	1.113 tonnes	1.195 tonnes	2014	-0.082	-6.86
NA - 14	Zinc (and its compounds)	No	Total Releases to Water	0 tonnes	0 tonnes	2014	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 Land	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total Releases to All Media	0 tonnes				

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

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 16	Ammonia (total)	Decrease in production levels	
7647-01-0	Hydrochloric acid	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	Decrease in production levels	
NA - 14	Zinc (and its compounds)	Decrease in production levels	

## Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 16	Ammonia (total)	No	Total On-site Disposals	0 tonnes	0 tonnes	2014	0	
NA - 16	Ammonia (total)	No	Total Off-site Disposals	13.99 tonnes	0 tonnes	2014	13.99	100
NA - 16	Ammonia (total)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 tonnes	1.26 tonnes	2014	-1.26	-100
NA - 16	Ammonia (total)	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
NA - 16	Ammonia (total)	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total On-site Disposals	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Off-site Disposals	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Off-site transfer for treatment Prior to Final Disposal	9.82 tonnes	20.10 tonnes	2014	-10.28	-51.14
7647-01-0	Hydrochloric acid	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
7647-01-0	Hydrochloric acid	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total On-site Disposals	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total Off-site Disposals	31.07 tonnes	64.82 tonnes	2014	-33.75	-52.07
NA - 14	Zinc (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	
NA - 14	Zinc (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2014	0	

## Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 16	Ammonia (total)	Decrease in production levels	
7647-01-0	Hydrochloric acid	Decrease in production levels Implementation of toxics reduction option(s)	
NA - 14	Zinc (and its compounds)	Decrease in production levels	

## Comparison Report - Transfers off-site for Recycling

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 off-site Transfers for Recycling	491.6 tonnes	415.28 tonnes	2014	76.32	18.38

## Comparison Report - Transfers off-site for Recycling - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 14	Zinc (and its compounds)	No reasons - quantities approximately the same	



**Pollution Prevention**

Does the facility have a documented pollution prevention plan?

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

**Pollution Prevention Activities**

Category	Activity	Name and description of the other activity
Equipment or Process Modifications	Other (specify in comments field)	Implemented the Kleingarn method for optimizing acid tanks.
Good Operating Practice or Training		
Inventory Management or Purchasing Techniques		
Materials or feedstock substitution		
On-site Re-use, Recycling, or Recovery		
Other Pollution Prevention Activities		
Product Design or Reformulation		
Spill or Leak Prevention Activities		

**Progress on TRA Plan - Objectives**

CAS RN	Substance Name	Objectives
NA - 16	Ammonia (total)	No reduction objective in Plan.
NA - 19	Hexavalent chromium (and its compounds)	The Plan has no objectives to reduce hexavalent chromium
7647-01-0	Hydrochloric acid	Reduce usage of hydrochloric acid by 56%. Application of Kleingarn curve to acid tank operations may save 33% of acid usage. After that, the use of a silicate precipitant to cleanse the cid may reduce usage by another 33%. 56% overall.
NA - M09	PM10 - Particulate Matter <= 10 Microns	No reduction objectives in Plan.
NA - 14	Zinc (and its compounds)	Reduce Zinc Usage.

**Progress on TRA Plan - Use Targets**

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 16	Ammonia (total)	No quantity target	No timeline target	
NA - 19	Hexavalent chromium (and its compounds)	No quantity target	No timeline target	
7647-01-0	Hydrochloric acid	241100 kg	5	June 2017 to apply Kleingarn Curce and precipitant methods
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	18 tonnes	4	Purchase, install and operate MZR machines for recovery of zinc on site.

**Progress on TRA Plan - Creation Targets**

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 16	Ammonia (total)	No quantity target	No timeline target	
NA - 19	Hexavalent chromium (and its compounds)	No quantity target	No timeline target	
7647-01-0	Hydrochloric acid	No quantity target	No timeline target	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	No quantity target	No timeline target	

**Progress on TRA Plan - Toxic Reduction Options Implemented**

CAS RN	Substance Name	Activity	Steps that were taken in the reporting period to implement the toxic reduction option	Public summary of the description of the steps	Comparison of the steps that were described in the plan for implementation with the actual steps taken during the reporting period	Public summary of the comparison of the steps
7647-01-0	Hydrochloric acid	Other	Implemented the Kleingarn Curve method to optimize acid usage/	The acid tanks are monitored for acid, zinc and iron. The tank is adjusted for optimum concentrations that allow maximum pickling operation.	Same steps	The acid tanks are monitored for acid, zinc and iron. The tank is adjusted for optimum concentrations that allow maximum pickling operation.
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	No changes	No additional improvements	None this period	No additional improvements

**Progress on TRA Plan - Reductions due to Options Implemented - Equipment or process modifications**

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
7647-01-0	Hydrochloric acid	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	150 tonnes
7647-01-0	Hydrochloric acid	Other	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	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 steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
7647-01-0	Hydrochloric acid	Other	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	10.28 tonnes
7647-01-0	Hydrochloric acid	Other	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

Progress on TRA Plan - Reductions due to Options Implemented - On-site reuse, recycling or recovery

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	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 steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - 14	Zinc (and its compounds)	Instituted recirculation within a process	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

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 - 16	Ammonia (total)	No		
NA - 19	Hexavalent chromium (and its compounds)	No		
7647-01-0	Hydrochloric acid	No		
NA - M09	PM10 - Particulate Matter <= 10 Microns	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 - 16	Ammonia (total)	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 - 16	Ammonia (total)	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 - 16	Ammonia (total)	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 - 16	Ammonia (total)	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.	
NA - 16	Ammonia (total)	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	



CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 14	Zinc (and its compounds)	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the additional actions.	

### Progress on TRA Plan - Amendments

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
NA - 16	Ammonia (total)	No		
NA - 19	Hexavalent chromium (and its compounds)	No		
7647-01-0	Hydrochloric acid	No		
NA - M09	PM10 - Particulate Matter <= 10 Microns	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

AZZ Galvanizing Services-Galvcast

Certifying Official (or authorized delegate)

Joseph Mancuso

Report Submitted by

Joseph Mancuso

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 23/06/2016, I, Joseph Mancuso, 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 - 16	Ammonia (total)
NA - 19	Hexavalent chromium (and its compounds)
7647-01-0	Hydrochloric acid
NA - M09	PM10 - Particulate Matter <= 10 Microns
NA - M10	PM2.5 - Particulate Matter <= 2.5 Microns

NA - 14 Zinc (and its compounds)

Company Name  
AZZ Galvanizing Services-Galvcast

Highest Ranking Employee  
Joseph Mancuso

Report Submitted by  
Joseph Mancuso

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
2015	23/06/2016	AZZ Galvcast Canada	Ontario	Acton	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: 3.11.4

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