



Public Notice

Issuance of Industrial Waste Discharge Permit

LASA's regulations [§60-16 (l)(1)] require public notification of the issuance of Industrial Waste Discharge Permits. LASA publishes this notice at www.lasa.org. Any person, including the industrial user, may petition LASA to reconsider the terms of an Industrial Waste Discharge Permit within 30 days of the date of notice of its issuance.

Date of Notice: March 12, 2019

Deadline for Comments: April 11, 2019



**Lancaster Area Sewer Authority
Industrial Wastewater Discharge Permit**

Alumax Mill Products, Inc. Discharge Permit

Permit Number: 318

Effective Date: March 15, 2019

Expiration Date: March 14, 2024

Permittee Information	
Facility Name	Alumax Mill Products, Inc.
Facility Address	1480 Manheim Pike PO Box 3167 Lancaster, PA 17604-3167
Phone Number	717-207-1621
Mailing Address (if different than above)	See Above
Name of Principal Executive Officer or Authorized Representative	Mr. Peter Velotas Director of Operations
Industrial Classification: (Significant Industrial User, Significant Categorical Industrial User, Other)	Significant Categorical Industrial User

1.0 Conditions

1.1 Issuance of this Permit is subject to the following conditions:

- 1.1.1 The industrial discharge shall be in accordance with the Wastewater Discharge Permit Application, its supporting documentation, and amendments. Such Application, its supporting documentation and amendments are hereby made a part of this Permit.
- 1.1.2 Standard Conditions numbered 1.0 – 11.0, attached hereto, are hereby made a part of this Permit.
- 1.1.3 Special Conditions designated 1.0 – 10.0, attached hereto, are hereby made a part of this Permit.

2.0 Approval

Date Approved	03/08/2019
Signature of Approver	
Name and Title of Approver	Sarah Yando – Laboratory Manager

Revision History

Page Number	Section Title	Description of Revision
1	Cover Page	Inserted new effective date and new expiration date.
4	Expiration & Renewal	Inserted new expiration date.
7-9	Wastewater Discharge Limitations & Monitoring Requirements	Inserted new effective date and new expiration date. Updated EPA Maximum Daily and EPA Maximum Monthly Avg limitations. Added monitoring note requirement specifying the time frame in which semi-annual sampling must be conducted.

Standard Conditions (1.0 – 11.0)

1.0 Definitions

- 1.1 Certain words in this Permit are defined in the Lancaster Area Sewer Authority's (LASA) Rules and Regulations – Chapter 40 – Definitions.

2.0 Authority & Penalties

- 2.1 The ability to apply and to enforce the requirements of Sections 307(b) and 402(b) (8) of the Clean Water Act and any regulations implementing those sections is incorporated into the Lancaster Area Sewer Authority's Rules and Regulations – Chapter 60 – Industrial Waste adopted on July 23, 1981, revised and amended in September 2004, and codified in April 2008. The Lancaster Area Sewer Authority was organized and is existing according to the Municipality Authorities Act of 1945, as amended and supplemented (53.P.S. S 301 et seq.).
- 2.2 Any Industrial User who violates conditions of this Permit, the Authority's Rules and Regulations – Chapter 60 – Industrial Waste, any applicable State (NPDES) or Federal (40 CFR Parts 403, 405 through 472) Regulations, is subject to having its Permit revoked and is subject to enforcement proceedings, including civil and criminal penalties, in accordance with the procedures of the Lancaster Area Sewer Authority's Rules and Regulations.
- 2.3 LASA shall have the ability to seek or assess civil penalties not to exceed the amount for \$25,000.00 a day for each violation by Industrial Users of the LASA sewer system according to the Publicly Owned Treatment Works Penalty Law, Act 9 of 1992, effective April 26, 1992.

3.0 Compliance Schedule

- 3.1 Existing Dischargers: As an existing discharger, the Applicant agrees to be in compliance with the conditions of this Permit immediately.
- 3.2 New Sources: New Applicants must be in compliance with the conditions of this Permit before commencing to discharge to the sewer system.

4.0 Maintenance of Records

- 4.1 The Permittee will maintain records relative to the wastewater discharge as specified in the Special Conditions. Such records will be available for examination by the Authority at all times.

5.0 Notification

5.1 Reports of Potential Problems

- 5.1.1 In the case of any discharge, including but not limited to accidental discharges, discharges of nonroutine, episodic nature, a noncustomary batch discharge, or a slug load, that may cause potential problems for the sewerage system, the Permittee shall immediately telephone and notify the Authority of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the user.

5.2 **Written Notice of Accidental Discharge**

5.2.1 Within five days following an accidental or slug discharge, the permittee shall submit to the Authority a detailed written report describing the cause of the accidental or slug discharge and the measures to be taken by the user to prevent similar future occurrences.

5.3 **Reports of Changed Conditions**

5.3.1 The Permittee must notify the Authority of any planned significant changes to the Permittee's operations or system, which might alter the nature, quality or volume of its wastewater, or affect the potential for slug discharge at least sixty (60) days before the change.

5.4 **Notice of Violation/Repeat Sampling and Reporting**

5.4.1 If sampling performed by the Permittee indicates the discharge to the collection system is not in compliance with the conditions of this Permit, the Permittee is required to notify the Authority within 24 hours of becoming aware of noncompliance. The Permittee shall collect and analyze another representative sample to verify a return to compliance and submit the sample report to the Authority within thirty (30) days of becoming aware of the noncompliance. Failure to report such incidents will result in penalties in accordance with the Authority's Rules and Regulations – Chapter 60 – Industrial Waste.

6.0 **Expiration & Renewal**

6.1 This Permit shall be considered to be in effect as of the Effective Date, and shall expire at midnight on **March 14, 2024**. The Permittee is required to apply for reissuance or renewal of this Permit not less than 180 days prior to the Expiration Date.

7.0 **Transfer of Permit**

7.1 This Permit is issued to a specific User, and for a specific operation. The Permit is not transferable to a new Owner, new User, different location, or other operation or process without the specific written permission of the Authority.

8.0 **Discharge Monitoring Facilities**

8.1 The Permittee shall provide at his expense and located within his property, a control manhole together with such meters and other equipment as deemed necessary by the Authority to facilitate observation, sampling and measurement of the wastewater discharge. Specific monitoring and analysis programs shall be as required by the Special Conditions of this Permit. Access to the facility shall be provided to the Authority upon request.

8.2 All measurements, tests, and analyses shall be performed in accordance with 40 CFR Part 136.

8.3 Unless otherwise specified in the Special Conditions, a 24-hour composite sample shall be considered adequate for the purposes of this Permit.

9.0 Accidental or Slug Discharge

- 9.1 The Permittee shall implement and maintain a Slug/Spill Control Plan that, at a minimum, includes the following:
 - 9.1.1 Description of discharge practices, including non-routine batch discharges
 - 9.1.2 Description of stored chemicals
 - 9.1.3 Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five (5) days
 - 9.1.4 Procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response

10.0 LASA Rules & Regulations – Chapter 60 – Industrial Waste

- 10.1 The Lancaster Area Sewer Authority's Rules and Regulations – Chapter 60 – Industrial Waste will be strictly enforced by the Authority. Discharge limitations to the Authority sewer system will be the more restrictive of EPA or LASA as defined in the Permit.

11.0 Surcharge

- 11.1 The Permittee shall be surcharged in accordance with the Lancaster Area Sewer Authority's Rules and Regulations – Chapter 30 – Charges, Rates and Fees.

Special Conditions (1.0 – 10.0)

1.0 Discharge Standards

- 1.1 The Industrial User shall comply with all the general prohibitive discharge standards in the Authority's Rules and Regulations – Chapter 60 – Industrial Waste.

2.0 Right of Entry

- 2.1 The Industrial User shall, after reasonable notification by the Authority, allow the Authority or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the User, at all reasonable hours, for the purposes of inspection, sampling, and/or records inspection. Reasonable hours in the context of inspection and sampling includes any time the Industrial User is operating any process which results in a process wastewater discharge to the Authority's sewer system.

3.0 Records & Recording

3.1 Records Retention

- 3.1.1 The Industrial User shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and

all summaries thereof, relating to monitoring, sampling and chemical analyses made by or in behalf of the User in connection with its discharge.

3.2 Recording of Results

3.2.1 For each measurement or sample taken pursuant to the requirements of this Permit, the User shall record and/or maintain the following information:

- 3.2.1.1 The exact place, date and time of sampling
- 3.2.1.2 The flow rate during sampling
- 3.2.1.3 The method of sample preservation
- 3.2.1.4 The dates and times the analyses were performed
- 3.2.1.5 The laboratory and technician who performed the sampling and analysis
- 3.2.1.6 The analytical method(s) used
- 3.2.1.7 A copy of the laboratory report and chain of custody form

4.0 Dilution

4.1 No Industrial User shall increase the use of potable or process water or, in anyway, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this Permit.

5.0 Proper Disposal of Pretreatment Sludges & Spent Chemicals

5.1 The disposal of sludges and spent chemicals generated shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

6.0 Signatory Requirements

6.1 All reports required by this Permit shall be signed by a Principal Executive Officer of the User, or his designee, according to 40 CFR Part 403.12(I).

7.0 Falsifying Information or Tampering with Monitoring Equipment

7.1 Knowingly making any false statement on any report or other document required by this Permit or knowingly rendering any monitoring device or method inaccurate may result in commencement of appropriate legal or equitable relief through the Court of Common Pleas of Lancaster County.

8.0 Modification or Revision of the Permit

8.1 After advanced notice and opportunity for a hearing, the terms and conditions of this Permit may be subject to modification, suspension, revocation and reissuance in whole or in part, by the Authority as limitations or requirements as identified in the Authority's Rules and Regulations – Chapter 60 – Industrial Waste, are modified or other just cause exists including, but not limited to, the following:

- 8.1.1 This Permit may be modified to incorporate special conditions resulting from the issuance of a special order.
- 8.1.2 The terms and conditions may be modified as a result of the United States Environmental Protection Agency (US EPA) promulgating a new federal Pretreatment Standard and/or the revision of Pennsylvania Department of Environmental Protection (PA DEP) or LASA, rules, regulations or standards.
- 8.1.3 For violation of any terms or conditions of this Permit.
- 8.1.4 Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts.
- 8.1.5 A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- 8.1.6 Any Permit modifications that result in new conditions in the Permit shall include a reasonable time schedule for compliance by the Industrial User.

9.0 Wastewater Discharge Limitations & Monitoring Requirements

- 9.1 The Permittee is authorized to discharge during the period:
 - 9.1.1 Effective Date: **March 15, 2019**
 - 9.1.2 Expiration Date: **March 14, 2024**
- 9.2 An exceedance of the purchase capacity for the facility in two out of three years will require the discharger to purchase additional capacity. The Authority does not intend to issue violations for exceedances of the purchased capacity through the Industrial Pretreatment Program.
- 9.3 All samples shall be collected, preserved, and analyzed in accordance with the procedures established in 40 CFR, Part 136 and Amendments.

9.4 Monitoring Requirements (Outfall 01):

Discharge Parameter	EPA Maximum Daily	EPA Maximum Monthly Avg.	LASA Local Limit (Daily Maximum)	Sample Type	Permittee Monitoring Frequency
Ammonia	--	--	Monitor	Composite	2 Times / Year
Biochemical Oxygen Demand (BOD)	--	--	1,100 mg/L	Composite	2 Times / Year
Cadmium	--	--	0.11 mg/L	Composite	2 Times / Year
Chromium	0.20 mg/L	0.08 mg/L	1.8 mg/L	Composite	2 Times / Year
Copper	--	--	0.9 mg/L	Composite	2 Times / Year
Cyanide, Total	0.14 mg/L	0.06 mg/L	0.7 mg/L	Grab	2 Times / Year (see section 9.4.1.3)
Lead	--	--	0.7 mg/L	Composite	2 Times / Year
Mercury	--	--	0.01 mg/L	Composite	2 Times / Year
Nickel	--	--	1.6 mg/L	Composite	2 Times / Year
Nitrogen, Total	--	--	Monitor	Composite	2 Times / Year
Oil and Grease (O&G), Total	24.3 mg/L	12.0 mg/L	100.0 mg/L	Grab	2 Times / Year
pH	--	--	5.5 – 10.5 S.U.	Grab	2 Times / Year
Phosphorus, Total	--	--	Monitor	Composite	2 Times / Year
Silver	--	--	1.0 mg/L	Composite	2 Times / Year
Suspended Solids, Total (TSS)	--	--	2,000 mg/L	Composite	2 Times / Year
Temperature	--	--	0 – 59 °C	Grab	2 Times / Year
Toxic Organics, Total (TTO)	0.32 mg/L	--	--	--	User will monitor Total O&G in lieu of TTO
Zinc	0.68 mg/L	0.28 mg/L	0.6 mg/L	Composite	2 Times / Year

9.4.1 Monitoring Requirement Notes

- 9.4.1.1 Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: **Outfall 01** - Sampling station/pit located approximately 25 feet west of the Alumax guard house at main plant entrance (Manheim Pike).
- 9.4.1.2 EPA Maximum Daily and Maximum Monthly Average limits are based on 40 CFR 467.25, Aluminum Forming Category, Rolling with Emulsions Subcategory, Pretreatment Standards for Existing Sources (PSES). No significant changes to the production or treatment aspects of the facility have occurred, allowing the "Existing Sources" designation to remain valid. Production Based Standards were used to develop equivalent concentration limits using production data from 2014-2018 (See Attached). Due to the variety of wastestreams discharged at Outfall 01, the Combined Wastestream Formula was used to determine allowable discharge concentration limits (See Attached).
- 9.4.1.3 If the first Cyanide sample of the calendar year is analyzed and found to contain less than 0.07 mg/L, the second sampling event is not necessary.
- 9.4.1.4 When differences occur between EPA Categorical Limits and LASA Local Limits, the stricter limit shall apply.

- 9.4.1.5 The following sample schedule shall be enforced for all discharge parameters with a permittee monitoring frequency of 2 times/year: at least 1 sampling event shall be conducted the first half of each year (January 1st – June 30th), and at least 1 sampling event shall be conducted the second half of each year (July 1st – December 31st).

9.5 Monitoring Requirements (Outfall 02):

Discharge Parameter	EPA Maximum Daily	EPA Maximum Monthly Avg.	LASA Local Limit (Daily Maximum)	Sample Type	Permittee Monitoring Frequency
Ammonia	--	--	Monitor	Composite	2 Times / Year
Biochemical Oxygen Demand (BOD)	--	--	1,100 mg/L	Composite	2 Times / Year
Cadmium	--	--	0.11 mg/L	Composite	2 Times / Year
Chromium	1.57 mg/L	0.64 mg/L	1.8 mg/L	Composite	2 Times / Year
Copper	--	--	0.9 mg/L	Composite	2 Times / Year
Cyanide, Total	1.04 mg/L	0.43 mg/L	0.7 mg/L	Grab	2 Times / Year (see section 9.5.1.3)
Lead	--	--	0.7 mg/L	Composite	2 Times / Year
Mercury	--	--	0.01 mg/L	Composite	2 Times / Year
Nickel	--	--	1.6 mg/L	Composite	2 Times / Year
Nitrogen, Total	--	--	Monitor	Composite	2 Times / Year
Oil and Grease (O&G), Total	184 mg/L	93 mg/L	100.0 mg/L	Grab	2 Times / Year
pH	--	--	5.5 – 10.5 S.U.	Grab	2 Times / Year
Phosphorus, Total	--	--	Monitor	Composite	2 Times / Year
Silver	--	--	1.0 mg/L	Composite	2 Times / Year
Suspended Solids, Total (TSS)	--	--	2,000 mg/L	Composite	2 Times / Year
Temperature	--	--	0 – 59 °C	Grab	2 Times / Year
Toxic Organics, Total (TTO)	2.45 mg/L	--	--	--	User will monitor Total O&G in lieu of TTO
Zinc	5.16 mg/L	2.15 mg/L	0.6 mg/L	Composite	2 Times / Year

9.5.1 Monitoring Requirement Notes

- 9.5.1.1 Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: **Outfall 02** - Cooling Tower discharge weir in the R.O. building located just east of the cast house and north of main plant cooling towers.
- 9.5.1.2 EPA Maximum Daily and Maximum Monthly Average limits are based on 40 CFR 467.25, Aluminum Forming Category, Rolling with Emulsions Subcategory, Pretreatment Standards for Existing Sources (PSES). No significant changes to the production or treatment aspects of the facility have occurred, allowing the "Existing Sources" designation to remain valid. Production Based Standards were used to develop equivalent concentration limits using production data from 2014-2018 (See Attached). Due to the variety of wastestreams discharged at Outfall 02, the Combined Wastestream Formula was used to determine allowable discharge concentration limits (See Attached).

- 9.5.1.3 If the first Cyanide sample of the calendar year is analyzed and found to contain less than 0.07 mg/L, the second sampling event is not necessary.
- 9.5.1.4 When differences occur between EPA Categorical Limits and LASA Local Limits, the stricter limit shall apply.
- 9.5.1.5 The following sample schedule shall be enforced for all discharge parameters with a permittee monitoring frequency of 2 times/year: at least 1 sampling event shall be conducted the first half of each year (January 1st – June 30th), and at least 1 sampling event shall be conducted the second half of each year (July 1st – December 31st).

10.0 User Reporting

- 10.1 The Permittee shall submit to the Authority on or before the thirtieth (30th) day of January, April, July, and October, an Industrial Waste Contribution and Monitoring Report of the previous quarter. The report shall include:
 - 10.1.1 A summary page listing all completed analysis results for that quarter indicating the nature and concentration of pollutants in the wastewater discharge.
 - 10.1.2 A statement of compliance or non-compliance with remedial actions to be implemented must follow these analysis results.
 - 10.1.3 A record of measured / calculated daily flows in gallons per day of the wastewater discharge for the reporting period.
 - 10.1.4 The certification statement listed in 40 CFR 467.03 (a) regarding cyanide analyses. If the first cyanide analysis of the year results in a value greater than 0.07 mg/L, the Authority may require additional monitoring.
 - 10.1.5 A statement of intent to monitor and report Oil and Grease results as an alternative provision for the monitoring requirements of Total Toxic Organics (TTO) as allowed by 40 CFR 467.03 (b).
- 10.2 The wastewater analysis used for reporting purposes shall be performed by a Qualified Laboratory. Upon specific approval by the Authority, the Permittee may be allowed to perform his own analyses, provided that:
 - 10.2.1 The Permittee analyzes one single blind, single concentration Proficiency Test (PT) study for each parameter monitored in-house. Proficiency Tests must be purchased directly from providers approved by the Pennsylvania Department of Environmental Protection. The results of the Proficiency Test must be provided to the Authority on an annual basis.
- 10.3 The Permittee shall implement the Accidental Spill Prevention and Slug Control Plan required by the Authority. An annual review of this Plan shall be conducted, and the results of the review shall be made available to the Authority upon request.

Alumax Production Data

Outfall 01

Hot Mill

Year	Total Production(lbs)	Total Production (kg)	Total Hours	Total Days	Kg/Day	% Diff
2014	667,677,714	302,853,517	5,670	236.3	1,281,920	-0.4
2015	655,529,354	297,343,113	5,574	232.3	1,280,272	-0.5
2016	638,445,186	289,593,865	5,292	220.5	1,313,351	2.1
2017	658,956,046	298,897,435	5,388	224.5	1,331,392	3.5
2018	680,936,683	308,867,684	6,042	251.8	1,226,883	-4.7
AVG	660,308,997	299,511,123	5,593	233	1,286,763	

Paint Line

Year	Total Production(lbs)	Total Production (kg)	Total Hours	Total Days	Kg/Day	% Diff
2014	55,347,163	25,105,051	3,615	150.6	166,673	-9.6
2015	59,962,352	27,198,465	3,587	149.5	181,980	-1.3
2016	64,678,378	29,337,619	4,018	167.4	175,237	-4.9
2017	66,671,724	30,241,785	4,021	167.5	180,503	-2.1
2018	62,564,363	28,378,718	3,136	130.7	217,184	17.8
AVG	61,844,796	28,052,328	3,675	153	184,315	

Flow Outfall 01

		gal/yr
2017-gal/yr	46,262,974	2014 48,020,918
2018-gal/yr	55,690,982	2015 42,368,589
Avg	46,262,974	2016 49,556,103
Gal/day	126,748	2017 46,262,974
Liters/day	479,741	2018 55,690,982

Outfall 02

Cast House

Year	Total Production(lbs)	Total Production (kg)	Total Hours	Total Days	Kg/Day	% Diff
2014	605,930,350	274,845,384	6,339	264.1	1,040,588	1.7
2015	579,597,740	262,901,113	5,940	247.5	1,062,227	3.8
2016	539,216,481	244,584,482	5,361	223.4	1,095,011	7.0
2017	577,355,600	261,884,095	5,579	232.5	1,126,585	10.1
2018	621,432,212	281,876,910	8,559	356.6	790,401	-22.7
AVG	584,706,477	265,218,396	6,356	265	1,022,963	

Flow Outfall 02

		gal/yr
2017-gal/yr	13,957,562	2014 9,383,828
Gal/day	38,240	2015 15,727,435
Liters/day	144,738	2016 14,106,844
		2017 13,957,562
		2018 14,650,792

Alumax Outfall 01 - Daily Average Production Based Discharge Limit

Waste Stream	Category	Production Off kg/day	Chromium	Zinc	Oil & Grease	Cyanide	TTO
Hot Mill	Core	1,331,392	0.057	0.190	6.8	0.038	0.090
Paint Line/Tension Line	Clean/Etch Bath	217,184	0.079	0.262	9.3	0.052	0.124
Paint Line/Tension Line	Clean/Etch Rinse	217,184	0.61	2.03	73	0.41	0.96
Hot Mill	Core	Allowable mg/day	75,889	252,964	9,053,463	50,593	119,825
Paint Line/Tension Line	Clean/Etch Bath	Allowable mg/day	17,158	56,902	2,019,812	11,294	26,931
Paint Line/Tension Line	Clean/Etch Rinse	Allowable mg/day	132,482	440,884	15,854,437	89,045	208,497
Total Mass (mg/day)			225,529	750,750	26,927,712	150,932	355,253
Plant Flow (Liter/day)			479,741	479,741	479,741	479,741	479,741
Allowable Concentration (mg/L)			0.47	1.56	56.1	0.31	0.74

Alumax Outfall 01 - Monthly Average Production Based Discharge Limit

Waste Stream	Category	Production Off kg/day	Chromium	Zinc	Oil & Grease	Cyanide
Hot Mill	Core	1,331,392	0.024	0.079	3.4	0.016
Paint Line/Tension Line	Clean/Etch Bath	217,184	0.032	0.109	4.7	0.022
Paint Line/Tension Line	Clean/Etch Rinse	217,184	0.25	0.85	36	0.17
Hot Mill	Core	Allowable mg/day	31,953	105,180	4,526,732	21,302
Paint Line/Tension Line	Clean/Etch Bath	Allowable mg/day	6,950	23,673	1,020,765	4,778
Paint Line/Tension Line	Clean/Etch Rinse	Allowable mg/day	54,296	184,606	7,818,626	36,921
Total Mass (mg/day)			93,199	313,459	13,366,123	63,002
Plant Flow (Liter/day)			479,741	479,741	479,741	479,741
Allowable Concentration (mg/L)			0.19	0.65	27.9	0.13

Alumax Outfall 02 - Daily Average Production Based Discharge Limit

Waste Stream	Category	Production Off kg/day	Chromium	Zinc	Oil & Grease	Cyanide	TTO
Cast House	Direct Chill						
	Casting						
	Contact Cooling	1,126,585	0.59	1.94	69	0.39	0.92
Cast House	Direct Chill						
	Casting						
	Contact Cooling	Allowable mg/day	664,685	2,185,575	77,734,372	439,368	1,036,458
		Total Mass (mg/day)	664,685	2,185,575	77,734,372	439,368	1,036,458
		Plant Flow (Liter/day)	144,738	144,738	144,738	144,738	144,738
		Allowable Concentration (mg/L)	4.59	15.10	537	3.04	7.16

Alumax Outfall 02 - Monthly Average Production Based Discharge Limit

Waste Stream	Category	Production Off kg/day	Chromium	Zinc	Oil & Grease	Cyanide
Cast House	Direct Chill					
	Casting					
	Contact Cooling	1,126,585	0.24	0.81	35	0.16
Cast House	Direct Chill					
	Casting					
	Contact Cooling	Allowable mg/day	270,380	912,534	39,430,479	180,254
		Total Mass (mg/day)	270,380	912,534	39,430,479	180,254
		Plant Flow (Liter/day)	144,738	144,738	144,738	144,738
		Allowable Concentration (mg/L)	1.87	6.30	272	1.25

Alumax Outfall 01 - Combined Wastestream Formula Calculation

REGULATED WASTEFLOWS, gpd:

Beckart DAF
Paint Line Clarifier
Wet Lab Clarifier

SUM OF REGULATED, gpd: 45,000

UNREGULATED WASTEFLOWS, gpd:

Facility Washing

SUM OF UNREGULATED, gpd: 4,500

DILUTION WASTEFLOWS, gpd:

Sanitary
R/O Reject

SUM OF DILUTION, gpd: 65,000

TOTAL WASTEFLOWS, gpd:

114,500

CWF RATIO = (TOTAL FLOW - DILUTION FLOW) / TOTAL FLOW =

0.432

PARAMETER of Concern	CATEGORICAL DAILY MAXIMUM LIMIT, mg/L	ALTERNATIVE CATEGORICAL DAILY MAXIMUM LIMIT, mg/L	CATEGORICAL MONTHLY AVERAGE LIMIT, mg/L	ALTERNATIVE CATEGORICAL MONTHLY AVERAGE LIMIT, mg/L
Chromium	0.47	0.20	0.19	0.08
Zinc	1.56	0.68	0.65	0.28
Oil and Grease	56.1	24.3	27.9	12.0
Cyanide	0.31	0.14	0.13	0.06
TTO	0.74	0.32		

Alumax Outfall 02 - Combined Wastestream Formula Calculation

REGULATED WASTEFLOWS, gpd:

WEMCO

SUM OF REGULATED, gpd: 21,000

UNREGULATED WASTEFLOWS, gpd:

None

SUM OF UNREGULATED, gpd: 0

DILUTION WASTEFLOWS, gpd:

Main Cooling Tower Blowdown

SUM OF DILUTION, gpd: 40,450

TOTAL WASTEFLOWS, gpd:

61,450

CWF RATIO = (TOTAL FLOW - DILUTION FLOW) / TOTAL FLOW =

0.342

PARAMETER of Concern	CATEGORICAL DAILY MAXIMUM LIMIT, mg/L	ALTERNATIVE CATEGORICAL DAILY MAXIMUM LIMIT, mg/L	CATEGORICAL MONTHLY AVERAGE LIMIT, mg/L	ALTERNATIVE CATEGORICAL MONTHLY AVERAGE LIMIT, mg/L
Chromium	4.59	1.57	1.87	0.64
Zinc	15.10	5.16	6.30	2.15
Oil and Grease	537	184	272	93
Cyanide	3.04	1.04	1.25	0.43
TTO	7.16	2.45		