Wilson, Tabatha

From: Gilliam, Allen
Sent: Wednesday, July 24, 2013 10:45 AM
To: Thielemier, Steve
Cc: DAutry@macleanfogg.com; Fuller, Kim; Wilson, Tabatha; pocawater@suddenlinkmail.com
Subject: AR0034835_MacLean ESNA ARP001048 June 2013 semi annual Pretreatment report and ADEQ reply_20130724
Attachments: pretreatment report 1-13.pdf

Steve,

MacLean-ESNA's June 2013 semi-annual Pretreatment report was received, reviewed, deemed complete and compliant with the Pretreatment Reporting requirements in 40 CFR 403.12 and more specifically with the Metal Finishing standards in 40 CFR 433.

No further action is deemed necessary at this time.

Once again thank you for showing the combined wastestream calculations deriving the proper dilution factor in calculating alternative limits. Please continue this practice.

For future reference you do not have to submit your toxic organic management plan (TOMP) or schematics with these semi-annual reports unless there's been changes to either of them. In that case, per 40 CFR 403.12(j), notations should be made regarding the specific changes. Otherwise, these two documents are one time submittals.

Thank you for your timely report remaining in compliance with the National Pretreatment Regulations in 40 CFR 403.

Sincerely,

Allen Gilliam
ADEQ State Pretreatment Coordinator
501.682.0625

ec: William Daniel, City of Pocahontas Wastewater Manager

E/NPDES/NPDES/Pretreatment/Reports

From: Thielemier, Steve [mailto:SThielemier@macleanfogg.com]
Sent: Friday, June 28, 2013 9:00 AM
To: Gilliam, Allen
Cc: Autry, Donnie
Subject: Semi-annual pretreatment Report

Allen
Here is the report for the first half of this year for Maclean/ Esna and if I can be of further help please let me know.

Thanks Steve

Steve Thielemier | Maintenance Supervisor
MacLean-ESNA
611 Country Club Road, Ar 72455 | (Map)
Office +1 870-892-4761 |
www.macleanfoggcs.com

SEMI-ANNUAL REPORT FOR INDUSTRIAL USERS REGULATED BY 40CFR433

Use of this form is not an EPA/ADEQ requirement.

Attn: Water Div/NPDES Pretreatment

(1) IDENTIFYING INFORMATION

A. LEGAL NAME & MAILING ADDRESS

Mac-Lean ESNA
611 County Club Road
Pocahontas, AR 72455

B. FACILITY & LOCATION ADDRESS

Mac-Lean ESNA
611 County Club Road
Pocahontas, AR 72455

C. FACILITY CONTACT: Chuck Barker TELEPHONE NUMBER: 870-892-4785 e-mail: cbarker@macleanfogg.com

(2) REPORTING PERIOD--FISCAL YEAR From 2013 to 2013 (Both Semi-Annual Reports must cover Fiscal Year)

A. MONTHS WHICH REPORTS ARE DUE

June & December

B. PERIOD COVERED BY THIS REPORT

FROM: January 2013 TO: June 2013

(3) DESCRIPTION OF OPERATION

A. REGULATED PROCESSES

CORE PROCESS(ES)

CHECK EACH APPLICABLE BLOCK

G Electroplating
G Electroless Plating
G Anodizing
X Coating
G Chemical Etching and Milling
G Printed Circuit Board Manufacture

ANCILLARY PROCESS(ES)*

LIST BELOW EACH PROCESS USED IN THE FACILITY

Rust Removal

Passive Rinse Tank

*SEE 40CFR433.10(a) FOR 40 DIFFERENT OPERATIONS

B. CHANGES: SUMMARIZE ANY CHANGES IN THE REGULATED PROCESSES SINCE THE LAST REPORT. ATTACH AN ADDITIONAL SHEET IF THE SPACE BELOW IS INADEQUATE. PROVIDE A NEW SCHEMATIC IF APPROPRIATE.

See attached process flow diagram and Table 1 Process Tanks and their contents in the Toxic Organic Management Plan

C. Number of Regular Employees at this Facility: 93

D. [Reserved]

(4) FLOW MEASUREMENT

INDIVIDUAL & TOTAL PROCESS FLOWS DISCHARGED TO POTW IN *GALLONS PER DAY*

Process	Average	Maximum	Type of Discharge
Regulated (Core & Ancillary)	2032	2453	Continuous
Regulated (Cyanide)	0	0	N/A
'403.6(e) Unregulated*	0	0	N/A
'403.6(e) Dilute**	98	118	Continuous
Cooling Water**	1564	1888	Continuous
Sanitary	1488	2978	Continuous
Total Flow to POTW	5085	7321	**********

*"Unregulated" has a precise legal meaning; see 40CFR403.6(e).

**Indicate if these Streams commingle with Regulated Streams BEFORE treatment

(5) MEASUREMENT OF POLLUTANTS

A. TYPE OF TREATMENT SYSTEM

B. COMMENTS ON TREATMENT SYSTEM

C. THE INDUSTRIAL USER MUST PERFORM SAMPLING AND ANALYSIS OF THE EFFLUENT FROM ALL REGULATED PROCESSES--CORE & ANCILLARY--(AFTER TREATMENT, IF APPLICABLE). ATTACH THE LAB ANALYSIS WHICH SHOWS A MAXIMUM; TABULATE ALL THE ANALYTICAL DATA COLLECTED DURING THE REPORT PERIOD IN THE SPACE PROVIDED BELOW. ZERO CONCENTRATIONS ARE NOT ACCEPTABLE; LIST THE DETECTION LIMIT IF CONCENTRATION WAS BELOW DETECTION LIMIT.

Pollutant(mg/l)	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN	TTO*
Max for 1 day	.390	1.565	1.910	.390	2.249	0.243	1.475	0.678	1.204
Monthly Ave	0.147	0.966	1.170	0.243	1.345	0.136	0.836	0.367	--
Max Measured	0.017	0.045	0.190	<0.04	0.310	< 0.007	0.390	.010	TOMP
Ave Measured	0.017	0.045	0.190	<0.04	0.310	< 0.007	0.390	.010	TOMP

Sample Location: Pretreatment system effluent

Sample Type (Grab or Composite): Grab / Composite

Number of Samples and Frequency Collected: One-Semi annually

40 CFR 136 Preservation and Analytical Methods Use: X Yes G No

Indicate Combined Wastestream Factor if Dilution Streams Exist w/Regulated Streams 0.565

(6) CERTIFICATION

A. Required under 40 CFR 403.12(g)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Dave Merwitz
(Typed Name)

D.12.f
(Corporate Officer or authorized representative)

B. CHECK ONE: G '433.11(e) TOXIC ORGANIC ANALYSIS ATTACHED G '433.12(a) TTO CERTIFICATION

Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last semi-annual compliance report. I further certify that this facility is implementing the toxic organic management plan submitted to Arkansas Department of Environmental Quality.

Dave Merwitz
(Typed Name)

D.12.f
(Corporate Officer or authorized representative)

Date of Signature D.12.f 6/27/13

Intentionally left blank

(7) POLLUTION PREVENTION ACT OF 1990 [42 U.S.C. 13101 et seq.]

'6602 [42 U.S.C. 13101] Findings and Policy para (b) Policy.--*The Congress hereby declares it to be the national policy of the United States that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.*

The User may list any new or ongoing Pollution Prevention practices:

(8) GENERAL COMMENTS

(9) SIGNATORY REQUIREMENTS [40CFR403.12(l)]

I certify under penalty of law that I have personally examined and am familiar with the information in this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Dave Merwitz
NAME OF CORPORATE OFFICER OR AUTHORIZED REPRESENTATIVE

D. M. [signature]
SIGNATURE

General Manager
OFFICIAL TITLE

6/27/2013
DATE SIGNED

Water from City

Year 2013	Days	Gallon Flow Average	Total
12-7 to 1-7	31	5926	183700
1-7 to 2-7	31	5745	178100
2-7 to 3-6	27	3989	107700
3-6 to 4-9	34	2800	95200
4-9 to 5-7	28	2786	78000
5-7 to 6-10	34	2332	79300
		Avg.Flow	3930
		Max.Flow	5926

Total Process Flow to City

Year 2013	Days	Gallon Flow Average	Total
11-30 to1-2	33	2713	89543
1-2 to 2-1	30	3808	114226
2-1 to 3-1	28	4353	121871
3-1 to 4-1	31	3758	116489
4-1 to 5-2	31	3725	115460
5-2 to 5-31	29	3225	93532
		Avg.used	3597
		Max.used	4353

Avg Flow for 12-1-1 to 6-1-13

1251 GPD Well Water	1251 GPD	Hydraulic Press non-contact cooling water - non-regulated dilution
	313 GPD	Lepel Induction Heater non-contact cooling water - non-regulated dilution
	1231 GPD	Passivate rinse tank - regulated
2442 GPD City Water	782 GPD	Rust Removal rinse tank - regulated
	19 GPD	Product Deburring - regulated
	93 GPD	Mop water - dilute
	1 GPD	Salt Spray blow down - dilute
	2.5 GPD	Lab - dilute
	1 GPD	Air compressor blow down - dilute
	1 GPD	Boiler blow down - dilute

Water used from City
3930 GPD

IN		OUT TO CITY
2032 GPD	Aeration Mixing Basin	3,597 GPD

Total Regulated = 2032 GPD

Total Dilute Flow = 1661 GPD

	Avg. Flow
Regulated Total	2032
Dilute	98
Cooling Water	1564
Sanitary	1488
Total Flow to POTW	5085

Max Flow for 12-1-1 to 6-1-13

1510 GPD Well Water	1510 GPD	Hydraulic Press non-contact cooling water - non-regulated dilution
	378 GPD	Lepel Induction Heater non-contact cooling water - non-regulated dilution
	1486 GPD	Passivate rinse tank - regulated
2948 GPD City Water	944 GPD	Rust Removal rinse tank - regulated
	23 GPD	Product Deburring - regulated
	112 GPD	Mop water - dilute
	1 GPD	Salt Spray blow down - dilute
	3.0 GPD	Lab - dilute
	1 GPD	Air compressor blow down - dilute
	1 GPD	Boiler blow down - dilute

Water used from City
5926 GPD

IN
2453 GPD Aeration Mixing Basin

OUT TO CITY
4,343 GPD

Total Regulated = 2453 GPD

Total Dilute Flow = 2006 GPD

	Avg. Flow
Regulated Total	2453
Dilute	118
Cooling Water	1888
Sanitary	2978
Total Flow to POTW	7321

Date 6/21/2013

Wastestream Factor Formula

Total process flow out to city = Total regulated + total dilute flow

Combined average wastestream factor is total regulated divided by total process flow to city

Total regulated		Total process flow to city		Wastestream factor
2032	divided by	3597	=	0.565

AMERICAN INTERPLEX CORPORATION
LABORATORIES

MacLean ESNA
ATTN: Mr. Steve Thielemier
611 Country Club Road
Pocahontas, AR 72455

This report contains the analytical results and supporting information for samples submitted on May 16, 2013. Attached please find a copy of the Chain of Custody and/or other documents received. Note that any remaining sample will be discarded two weeks from the original report date unless other arrangements are made.

This report is intended for the sole use of the client listed above. Assessment of the data requires access to the entire document.

This report has been reviewed by the Laboratory Director or a qualified designee.

John Overbey
Laboratory Director

This document has been distributed to the following:

PDF cc: MacLean ESNA
ATTN: Mr. Steve Thielemier
sthielemier@macleanfogg.com

AMERICAN INTERPLEX CORPORATION
LABORATORIES

MacLean ESNA
611 Country Club Road
Pocahontas, AR 72455

SAMPLE INFORMATION

Project Description:
Two (2) water sample(s) received on May 16, 2013
P.O. No. 25158-00

Receipt Details:
A Chain of Custody was provided. The samples were delivered in one (1) ice chest.
Ice chest #1 was delivered with shipping documentation.

Each sample container was checked for proper labeling, including date and time sampled. Sample containers were reviewed for proper type, adequate volume, integrity, temperature, preservation, and holding times. Any exceptions are noted below:

Sample Identification:

Laboratory ID	Client Sample ID	Sampled Date/Time	Notes
167454-1	001 5-15-13 8:05am	15-May-2013 0805	1
167454-2	001 5-15-13 10:00am	15-May-2013 1000	

Notes:
1. Received temperature of samples did not meet regulatory requirements

Case Narrative:
There were no qualifiers for this data and all samples met quality control criteria.

References:
"Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79-020 (Mar 1983) with updates and supplements EPA/600/5-91-010 (Jun 1991), EPA/600/R-92-129 (Aug 1992) and EPA/600/R-93-100 (Aug 1993).
"Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846)", Third Edition.
"Standard Methods for the Examination of Water and Wastewaters", 21st edition.
"American Society for Testing and Materials" (ASTM).
"Association of Analytical Chemists" (AOAC).

AMERICAN INTERPLEX CORPORATION
LABORATORIES

MacLean ESNA
611 Country Club Road
Pocahontas, AR 72455

ANALYTICAL RESULTS

AIC No. 167454-1
Sample Identification: 001 5-15-13 8:05am

Analyte		Result	RL	Units	Qualifier
Total Cyanide		**< 0.01**	0.01	**mg/l**	
SM 4500-CN C,E	Prep: 16-May-2013 1314 by 308	Analyzed: 17-May-2013 1614 by 302		Batch: W43584	

AIC No. 167454-2
Sample Identification: 001 5-15-13 10:00am

Analyte		Result	RL	Units	Qualifier
Cadmium		**0.017**	0.004	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Chromium		**0.045**	0.007	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Copper		**0.19**	0.006	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Lead		**< 0.04**	0.04	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Nickel		**0.31**	0.01	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Silver		**< 0.007**	0.007	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	
Zinc		**0.39**	0.002	**mg/l**	
EPA 200.7	Prep: 16-May-2013 1532 by 100	Analyzed: 17-May-2013 0945 by 305		Batch: S34653	

AMERICAN INTERPLEX CORPORATION
LABORATORIES

MacLean ESNA
611 Country Club Road
Pocahontas, AR 72455

LABORATORY CONTROL SAMPLE RESULTS

Analyte	Spike Amount	%	Limits	RPD	Limit	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Cyanide	0.1 mg/l	86.6	85.0-115			W43584	16May13 0849 by 308	17May13 1648 by 308		
Cadmium	5 mg/l	100	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Chromium	0.5 mg/l	103	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Copper	0.5 mg/l	104	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Lead	5 mg/l	97.3	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Nickel	0.5 mg/l	102	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Silver	0.1 mg/l	91.6	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		
Zinc	0.5 mg/l	95.1	85.0-115			S34653	16May13 1533 by 100	17May13 0932 by 305		

MATRIX SPIKE SAMPLE RESULTS

Analyte	Sample	Spike Amount	%	Limits	Batch	Preparation Date	Analysis Date	Dil	Qual
Total Cyanide	167355-1	0.1 mg/l	76.4	75.0-125	W43584	16May13 0849 by 308	17May13 1552 by 302		
	167355-1	0.1 mg/l	81.1	75.0-125	W43584	16May13 0849 by 308	17May13 1554 by 302		
	Relative Percent Difference:		5.59	20.0	W43584				
Cadmium	167454-2	5 mg/l	95.6	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	5 mg/l	96.0	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.389	20.0	S34653				
Chromium	167454-2	0.5 mg/l	96.8	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	0.5 mg/l	96.7	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.104	20.0	S34653				
Copper	167454-2	0.5 mg/l	108	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	0.5 mg/l	109	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.692	20.0	S34653				
Lead	167454-2	5 mg/l	94.3	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	5 mg/l	94.5	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.143	20.0	S34653				
Nickel	167454-2	0.5 mg/l	91.4	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	0.5 mg/l	91.7	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.135	20.0	S34653				
Silver	167454-2	0.1 mg/l	88.6	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	0.1 mg/l	88.6	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.0234	20.0	S34653				
Zinc	167454-2	0.5 mg/l	93.3	75.0-125	S34653	16May13 1533 by 100	17May13 0936 by 305		
	167454-2	0.5 mg/l	92.8	75.0-125	S34653	16May13 1533 by 100	17May13 0941 by 305		
	Relative Percent Difference:		0.276	20.0	S34653				

AMERICAN INTERPLEX CORPORATION
LABORATORIES

MacLean ESNA
611 Country Club Road
Pocahontas, AR 72455

LABORATORY BLANK RESULTS

Analyte	Result	RL	PQL	QC Sample	Preparation Date	Analysis Date	Qual
Total Cyanide	< 0.01 mg/l	0.01	0.01	W43584-1	16May13 0849 by 308	17May13 1546 by 302	
Cadmium	< 0.004 mg/l	0.004	0.004	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Chromium	< 0.007 mg/l	0.007	0.007	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Copper	< 0.006 mg/l	0.006	0.006	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Lead	< 0.04 mg/l	0.04	0.04	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Nickel	< 0.01 mg/l	0.01	0.01	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Silver	< 0.007 mg/l	0.007	0.007	S34653-1	16May13 1533 by 100	17May13 0928 by 305	
Zinc	< 0.002 mg/l	0.002	0.002	S34653-1	16May13 1533 by 100	17May13 1323 by 305	

AMERICAN INTERPLEX CORPORATION
LABORATORIES

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client: MACLEAN / ESNA
Project Reference:
Project Manager:
Sampled By: STEVE THIELEMIER

PO No.

Sample Matrix: WATER, SOIL

No of BOTTLES

Analyses Requested: CYANIDE, METALS

AIC Control No: 167454
AIC Proposal No:
Carrier: UPS
Received Temperature °C: 15.3

AIC No.	Sample Identification	Date/Time Collected	GRAB	COMP	WATER	SOIL	No of BOTTLES	CYANIDE	METALS	Remarks
	001	8:05 AM 5-15-13	X		X		1	X		
	001	9:55 AM 5-14-13		X	X		1		X	
				X						
	001	10:00 A.M 5-15-13		X						
		Container Type						P	P	
		Preservative						B	N	

Field pH calibration on _____ @ _____ Buffer:

G = Glass, NO = none, P = Plastic, S = Sulfuric acid pH2, V = VOA vials, N = Nitric acid pH2, H = HCl to pH2, B = NaOH to pH12, T = Sodium Thiosulfate, Z = Zinc acetate

Turnaround Time Requested: (Please circle)
(NORMAL) or EXPEDITED IN ___ DAYS
Expedited results requested by: _____
Who should AIC contact with questions: _____
Phone: 770-892-4761 Fax: _____
Report Attention to: STEVE THIELEMIER
Report Address to:

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	5-15-13 8:35 AM	[signature]	8:36 AM 5-15-13
Relinquished By:	Date/Time	Received in Lab By: [signature]	Date/Time 5-16-13 1000

Comments:

TOXIC ORGANIC MANAGEMENT PLAN

for

Maclean-ESNA
611 Country Club Road
Pocahontas, AR 72455

Revised August 2011
by:

Poague & Associates, Inc.
2315 Parkway Lane
Van Buren, AR 72956

TOXIC ORGANIC MANAGEMENT PLAN

Maclean-ESNA
611 Country Club Road
Pocahontas, AR 72455

MANAGEMENT APPROVAL

This Toxic Organic Management Plan (TOMP) will be implemented as herein described

Signature: _____

Name: Dave Merwitz
Title: General Manager

Facility Information:
MacLean-ESNA a subsidiary of MacLean-FOGG Company
611 Country Club Road
Pocahontas, AR 72455
Randolph County

Phone: 870-892-5201

SIC code: 3452 – Bolts, Nuts, Screws, Rivets, and Washers
NAICS: 332722 - Bolt, Nut, Screw, Rivet, and Washer manufacturing

Publicly Owned Treatment Works (POTW) – Pocahontas City Sewer

Applicability of the EPA control of Total Toxic Organics to MacLean-ESNA
MacLean-ESNA conducts chromating and also chemical etching and milling operations at the Pocahontas facility. These processes invoke the EPA regulations for "Metal Finishing" under 40 CFR 433 Subpart A. This regulation requires control of a specific list of chemicals known as Toxic Organics. (see Appendix A)
Metal Finishing companies are regulated for Total Toxic Organics (TTO), and are required to either (1) perform self-monitoring for all TTO's or (2) implement a Toxic Organic Management Plan (TOMP) and submit a certification statement with each self-monitoring report that concentrated toxic organics are not being discharged to the sewerage system.
MacLean-ESNA has elected to implement a TOMP and submit certification statements with its self-monitoring "Discharge Monitoring Reports" (DMR's)
Federal Regulations state "a discharger shall submit a solvent management plan that specifies to the satisfaction of the permitting authority (or, in the case of indirect dischargers, the control authority) the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the wastewater. The control authority for MacLean-ESNA is the Arkansas Department of Environmental Quality, Water Division.

A. Process Description

MacLean-ESNA manufactures elastic stop nuts and precision machined components. The manufacturing processes include metal forming, metal cutting, passivation and metal cleaning.

- Wastewater types and volumes are depicted on Figure 1: Process Flow diagram.
- The current wastewater pre-treatment system is depicted on Figure 2: Pretreatment Process diagram.

Maclean-ESNA brings in bar stock to manufacture nylon fasteners (lock/stop nuts), some with protective caps. The manufacturing processes include cut-off, stamping or multi-head forming punches, precision tapping (screw) machining, nylon insert insertion. Self-contained CNC machining units use water soluble coolants. Spent coolants are collected in drums and disposed by a waste service company. Tramp oil from any machining or oil removal systems is captured and recycled/disposed by a waste service company. Wastewater from the facility goes to a Wastewater Pretreatment system before being discharged to the city sewer. Descriptions of the seven processes that feed the Wastewater Pretreatment System are listed below and coincide with Figure 1: Process Flow diagram.

There are seven process sources of water that feed the Wastewater Pretreatment Process.

1) Well water is used as "non contact cooling water" for the Hydraulic Press. This water enters the Pretreatment Process directly in the Effluent Channel, and is therefore not pretreated. This water is a "dilute" and is taken into account in the DMR calculations
2) City water is used as "non contact cooling water" for the Lepel Induction Heater. This water enters the Pretreatment Process directly in the Effluent Channel, and is therefore not pretreated. This water is a "dilute" and is taken into account in the DMR calculations.
3) City water is used in the Passivation process. The Passivation process consists of three tanks. Tank 1 contains Nitric Acid and Sodium Dichromate Dyhydrate. Tank 2 contains Nitric Acid. Tank 3 contains rinse water. Parts are run through either Tank 1 or Tank 2, then rinsed in Tank 3. Tank 3 has a constant flow of process water to the pretreatment system when the passivation process is running. Parts taken out of Tank 3 are then run through a spin dryer, which slings any remaining rinse water off the parts. The water from the spin dryer is collected and put back into Rinse Tank 3. Tanks 1 and 2 are pumped out when needed, to remove sludge. All contents of Tanks 1 and 2 are collected in drums and disposed by a hazardous waste service.
4) City water is used in the Rust Removal process. This consists of two tanks, Tank 4 contains phosphoric acid, and Tank 5 contains rinse water. Parts are run through Tank 4, then Tank 5. Tank 5 has a constant flow of process water to the pretreatment system when the derusting process is running. Parts taken out of Tank 5 are then run through a spin dryer, which slings any remaining rinse water off the parts. The water from the spin dryer is collected and put back into Rinse Tank 5. The Tank 4 is pumped out when needed, to remove sludge. All contents of Tank 4 are collected in drums and disposed by a hazardous waste service
5) City water is used for the Product Deburring process. This consists of deburring tumblers which drain to a settling pit (#6), then to the Pretreatment system. The settling Pit #6 is pumped out when needed, to remove sludge. All contents of the pit are collected by a vacuum truck and disposed by a hazardous waste service.
6) City water is used to feed the facility boilers. The boiler blow-down process generates very low water volume and goes directly to the Pretreatment system
7) Condensate is generated during the air compressor blow-down process. This water is very low volume and goes directly to the Pretreatment system. This water is a "dilute" and is taken into account in the DMR calculations.

B Identification of Toxic Organic Chemicals at the facility

a See appendix A for the List of Toxic Organic Chemicals that are regulated by 40 CFR 433 Metal Finishing.

b See Appendix B for the List of Toxic Organic compounds present at the facility and their disposal methods.

C Identification of Other potential sources of Toxic Organic Pollutant introduction to the Wastewater Treatment System

a Acid Room (Passivation and Rust Removal processes) - Floor drains in the acid room are connected to the main wastewater system. Therefore, spills of small quantities of chemicals could enter the treatment system. However, drums of Toxic Organic chemicals are not stored inside the acid room, and spill kits are available in the area. MacLean ESNA has an Emergency Preparedness and Response Plan that addresses spill response and to not allow spills to enter the public sewer or waterways.

b Drums/pails/containers in use throughout the facility - Spills could occur by accidental dumping, spillage during routine transfer, etc. MacLean ESNA has an Emergency Preparedness and Response Plan that addresses spill response and to not allow spills to enter the public sewer or waterways.

c Chemical Storage Areas - Chemicals are stored in bulk quantities in the Chemical Storage area. The chemical storage area is fenced and has secondary containment. Spills could occur by accidental dumping, spillage during routine transfer, etc. Such spills, however, cannot enter the wastewater treatment system since all the chemical storage areas do not have floor drains and spill kits are available.

d Parts Washers Tank 9 – The facility uses parts washers to clean the parts before shipping. The water from these parts washers is pumped to an evaporation tank. The evaporation tank has an oil/grease removal system. Oil and Grease is collected in a drum and disposed by a waste service. The water is heated and evaporated, so that none of the water is sent to the pretreatment system. This tank is not connected to the pretreatment system. Sludge is collected in drums and disposed by a hazardous waste service. (See Table 1 below for chemicals)

e Carbowax Tank 7 – The Carbowax tank is used to apply wax to certain parts, as requested by customers. This tank is not connected to the pretreatment system. It is pumped out when necessary, and collected in drums, and disposed by a hazardous waste service. (See Table 1 below for chemicals)

f Cetyl Alcohol Tank 8 - The Cetyl tank is used to apply certain chemicals to certain parts, as requested by customers. This tank is not connected to the pretreatment system. It is pumped out when necessary, and collected in drums, and disposed by a hazardous waste service. (See Table 1 below for chemicals)

D Preventive Measures – The following are measures that will be taken to prevent toxic organic chemicals from entering into the sanitary sewer system.

a Training - All personnel involved in chemical handling and clean-up activities will receive training in the proper handling and disposal of solvents and clean-up materials in order to keep regulated toxic organics out of the sanitary sewer system.

b. Chemical Storage Area – The Chemical storage area will be maintained in a neat and orderly manner.

- The storage area shall be inspected weekly
- Containers shall be labeled and maintained in good condition
- Containers shall be kept closed except when filling or removing chemicals
- Leaks and spills will be cleaned up immediately

c. Manufacturing Area – Manufacturing Equipment will be maintained in good working condition
   - Leaking equipment and or piping will be repaired immediately
   - Leaks or spills will be cleaned up immediately

d. Emergency Preparedness and Response – Employees who handle chemicals that could be spilled to the floor drains leading to the pretreatment system and eventually the city sewer system shall be trained to the Emergency Preparedness and Response Plan. This plan outlines spill response and containment procedures, and instructions to keep spills out of the city sewer system.

E. Pretreatment Standards

PART 433—METAL FINISHING POINT SOURCE CATEGORY

Subpart A—Metal Finishing Subcategory

§ 433.10 Applicability; description of the metal finishing point source category.
(a) Except as noted in paragraphs (b) and (c), of this section, the provisions of this subpart apply to plants which perform any of the following six metal finishing operations on any basis material:

- Electroplating,
- Electroless Plating,
- Anodizing,
- Coating (chromating, phosphating, and coloring),
- Chemical Etching and Milling,
- Printed Circuit Board Manufacture

If any of those six operations are present, then this part applies to discharges from those operations and also to discharges from any of the following 40 process operations: Cleaning, Machining, Grinding, Polishing, Tumbling, Burnishing, Impact Deformation, Pressure Deformation, Shearing, Heat Treating, Thermal Cutting, Welding, Brazing, Soldering, Flame Spraying, Sand Blasting, Other Abrasive Jet Machining, Electric Discharge Machining, Electrochemical Machining, Electron Beam Machining, Laser Beam Machining, Plasma Arc Machining, Ultrasonic Machining, Sintering, Laminating, Hot Dip Coating, Sputtering, Vapor Plating, Thermal Infusion, Salt Bath Descaling, Solvent Degreasing, Paint Stripping, Painting, Electrostatic Painting, Electropainting, Vacuum Metalizing, Assembly, Calibration, Testing, and Mechanical Plating.

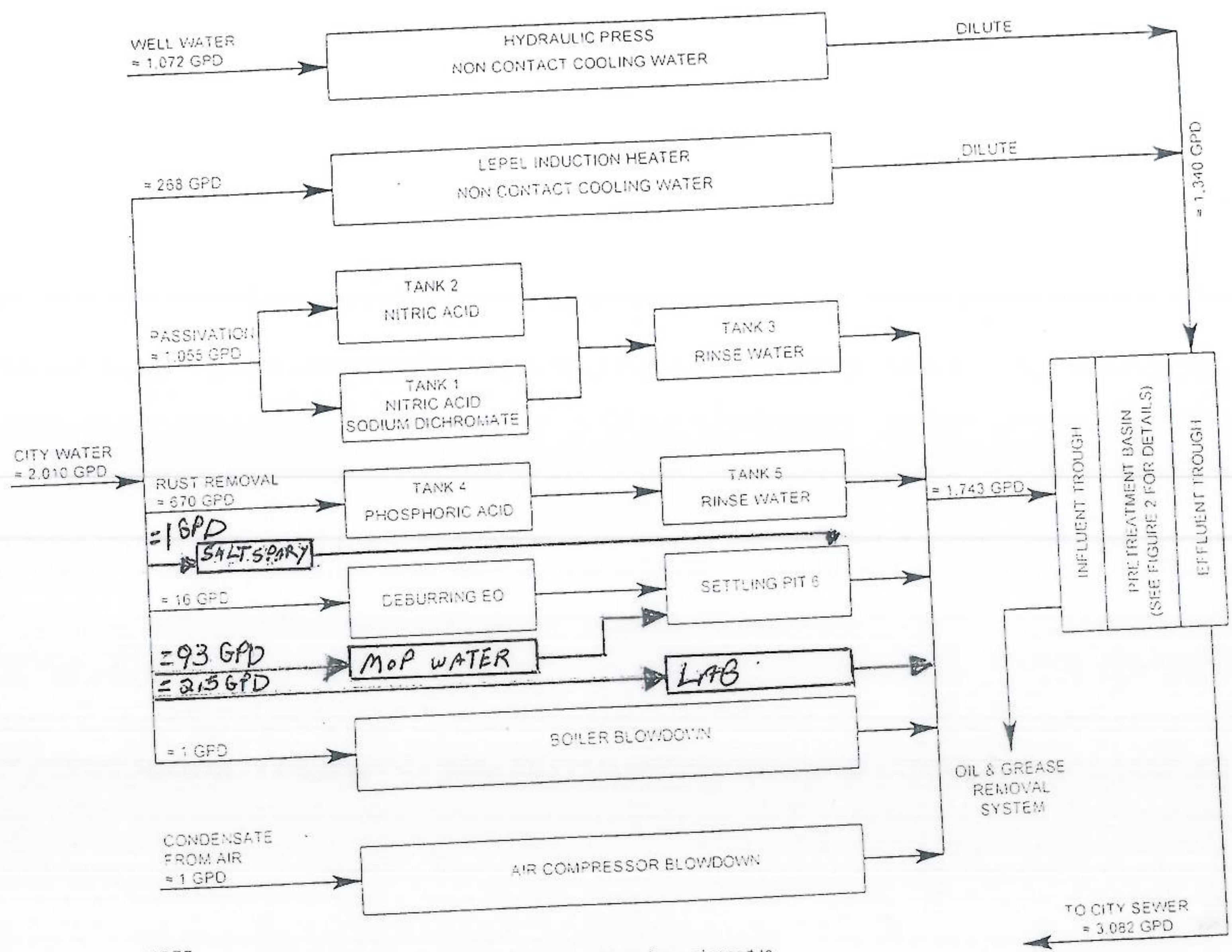
Pretreatment Standards for the Metal Finishing Category (40 CFR 433)

Pretreatment Standards for Existing Sources (PSES)

Pollutant	Daily Maximum, mg/l	Max. Monthly Avg, mg/l
Cadmium	0.69	0 26
Chromium	2.77	1 71
Copper	3 38	2.07
Lead	0 69	0 43
Nickel	3.98	2 38
Zinc	2.61	1 48
Silver	0.43	0 24
Cyanide (total)	1 2	0 65
Total Toxic Organics	2 13	–

No user introducing wastewater pollutants into a publicly owned treatment works under the provisions of this subpart shall augment the use of process wastewater as a partial or total substitute for adequate treatment to achieve compliance with this standard.

- An existing source submitting a certification in lieu of monitoring pursuant to § 433 12 (a) and (b) of this regulation must implement the toxic organic management plan approved by the control authority.
- An existing source subject to this subpart shall comply with a daily maximum pretreatment standard for TTO of 4.57 mg/l



NOTE:
These flows are highly dependent on production volumes. If semiannual report to ADEQ calculations differ by more than 20%, this diagram must be updated with the new numbers and sumbitted to ADEQ.

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FIGURE 1

PROCESS FLOW DIAGARM
MACLEAN-ESNA
POCAHONTAS, ARKANSAS

REV. 2 6/24/13

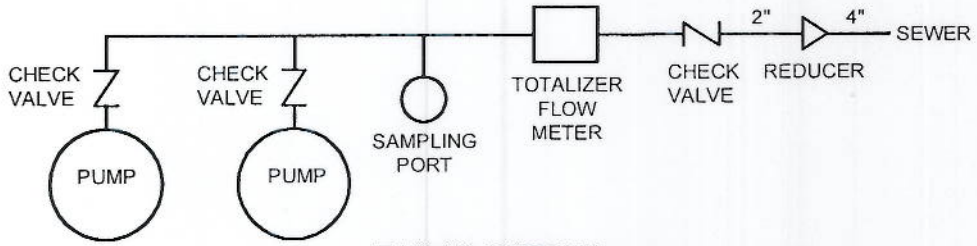
REV. 1 9/15/2011

Table 1
Process Tanks and their contents

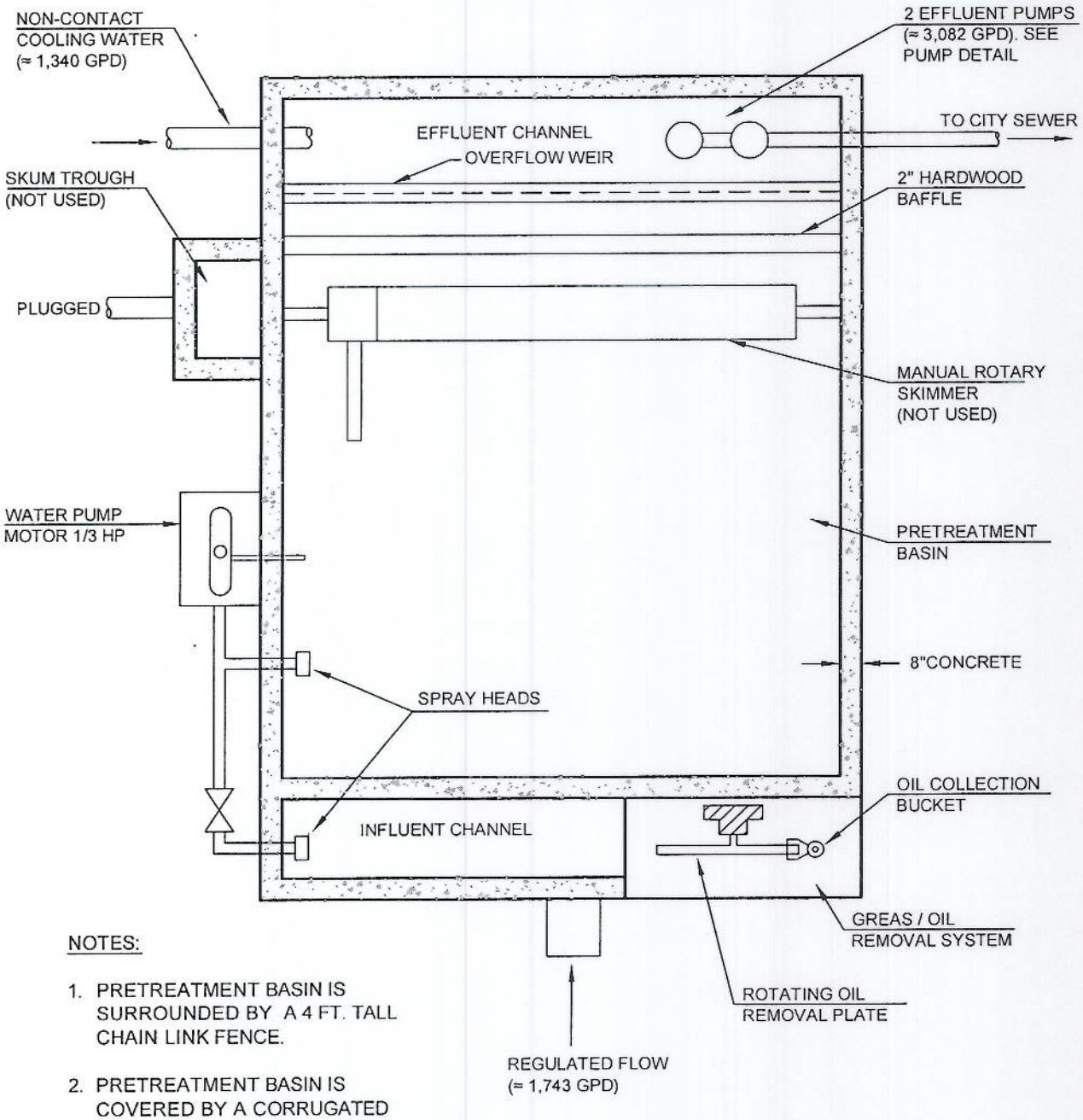
Tank number	Chemical Trade name, if any	Chemical name
Tank #1		Nitric Acid Sodium Dichromate Dyhydrate
Tank #2		Nitric Acid
Tank #3		Fresh water with chemical drag-out from tanks 1 & 2
Tank #4		Phosphoric Acid
Tank #5		Fresh water with chemical drag-out from tank 4
Settling Pit #6	MI Clean PW 16LT	Sodium Hydroxide Sodium Metasilicate Sodium Phosphate, Dibasic Borates, Tetra, Sodium salts – pentahydrate Diethylene Glycol N-Butyl ether
	Almet B	Sodium Metasilicate Triphosphoric Acid Pentasodium salt Triethanolamine Polyethylene Glycol Octyphenol Ether
	Cutting Compound DG 16	Aluminum Oxide
	Burnishing Compound 203	Powdered Mild Alkaline Salt (not regulated)
	Cutting Compound 17 DST	Quartz
	Emerald ICP 1	Amine soap and surfactants (not regulated)
	Lusterlume BASC	Powdered mild alkaline soap (not regulated)
	R2 Rust inhibitor	Sodium Nitrate Sodium Carbonate Sodium Hexametaphosphate
	BH-38	2-Butoxyethanol (not regulated)
	Morton Salt	Sodium Chloride

NOTE: Tanks 7, 8, 9 are not connected to the Pretreatment System and therefore not on the Process Flow Diagram. They are located in the Acid Room and listed here for reference and tank contents.

Tank 7 (Carbowax)	4 Chlorobenzotrifluoride Carbowax	Benzene – Toxic Organic Polyethylene Glycol
Tank 8 (Cetyl Alcohol)	Cetyl Alcohol NF 4 Chlorobenzotrifluoride	1-Hexadecanol 1-Octacecanol 1-Tetradecanol Benzene – Toxic Organic
Tank 9 (Parts washer waste water)	R2 Rust inhibitor Cleaner P 005M Gillite 162X Rustarest 230	Sodium Nitrate Sodium Carbonate Sodium Hexametaphosphate Sodium Carbonate Sodium Metasilicate Triphosphoric Acid Pentasodium salt Polypropylene Glycol Nonylphenol, branched, ethoxlyated Amides, coco, N,N-bis(hydroxyethyl) 2,2,2-nitrilotriethanol 2,2-iminodiethanol Naphtha Sodium Sulfonate 2-Butoxy Ethanol



PUMP DETAIL



NOTES:

1. PRETREATMENT BASIN IS SURROUNDED BY A 4 FT. TALL CHAIN LINK FENCE.
2. PRETREATMENT BASIN IS COVERED BY A CORRUGATED ROOF.

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FIGURE 2

PRETREATMENT PROCESS
MACLEAN-ESNA
POCAHONTAS, ARKANSAS

REV. 1 9/15/2011

Appendix A

List of Toxic Organic Chemicals that are regulated by 40 CFR 433 Metal Finishing, as listed on the EPA website, last revised July 2010

Acenaphthene
Acrolein
Acrylonitrile
Benzene
Benzidine
Carbon tetrachloride (tetrachloromethane)
Chlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobenzene
1,2,-Dichloroethane
1,1,1-Trichloroethane
Hexachloroethane
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
Chloroethane
Bis (2-chloroethyl) ether
2-Chloroethyl vinyl ether (mixed)
2-Chloronaphthalene
2,4,6-Trichlorophenol
Parachlorometa cresol
Chloroform (trichloromethane)
2-Chlorophenol
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3-Dichlorobenzidine
1,1-Dichloroethylene
1,2-Trans-dichloroethylene
2,4-Dichlorophenol
1,2-Dichloropropane
1,3-Dichloropropylene (1,3-dichloropropene)
2,4-Dimethylphenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
1,2-Diphenylhydrazine
Ethylbenzene
Fluoranthene
4-Chlorophenyl phenyl ether
4-Bromophenyl phenyl ether
Bis (2-chloroisopropyl) ether
Bis (2-chloroethoxy) methane
Methylene chloride (dichloromethane)

Methyl chloride (chloromethane)
Methyl bromide (bromomethane)
Bromoform (tribromomethane)
Dichlorobromomethane
Chlorodibromomethane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
2-Nitrophenol
4-Nitrophenol
2,4-Dinitrophenol
4,6-Dinitro-o-cresol
N-nitrosodimethylamine
N-nitrosodiphenylamine
N-nitrosodi-n-propylamine
Pentachlorophenol
Phenol
Bis (2-ethylhexyl) phthalate
Butyl benzyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Diethyl phthalate
Dimethyl phthalate
1,2-Benzanthracene
(benzo(a)anthracene)
Benzo(a)pyrene (3,4-benzopyrene)
3,4-Benzofluoranthene (benzo(b)fluoranthene)
11,12-Benzofluoranthene
(benzo(k)fluoranthene)
Chrysene
Acenaphthylene
Anthracene
1,12-Benzoperylene (benzo(ghi)perylene)
Fluorene
Phenanthrene
1,2,5,6-Dibenzanthracene
(dibenzo(a,h)anthracene)
Indeno(1,2,3-cd) pyrene (2,3-o-phenlene pyrene)
Pyrene
Tetrachloroethylene
Toluene
Trichloroethylene
Vinyl chloride (chloroethylene)
Aldrin
Dieldrin
Chlordane (technical mixture and metabolites)
4,4-DDT
4,4-DDE (p,p-DDX)

4,4-DDD (p,p-TDE)
Alpha-endosulfan
Beta-endosulfan
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
(BHC-hexachlorocyclohexane)
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC
(PCB-polychlorinated biphenyls)
PCB-1242 (Arochlor 1242)
PCB-1254 (Arochlor 1254)
PCB-1221 (Arochlor 1221)
PCB-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)
PCB-1016 (Arochlor 1016)
Toxaphene

Appendix B

List of Toxic Organic compounds present at the facility and their disposal methods. as of August 2011

Product/Chemical Name	Regulated Constituent	Annual Quantity	Disposal Method
4-Chlorobenzotrifloride	Benzene	3204 lbs	Hazardous waste disposal
Micarta	Phenol	2.5 lbs	Block Consumed during use
Buehler Epo-Met F, Epo-Met G	Phenol	< 1 lb	Epoxy powder consumed during use
Gasoline	Benzene	300 lbs	Consumed during use