Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

December 3, 1993

Mr. J. B. Martin
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: LaSalle County Station Units 1 and 2
Renewal of NPDES Permit
NRC Docket Nos. 50-373 and 50-374

Dear Mr. Martin:

Commonwealth Edison Company is the holder of National Pollutant Discharge Elimination System (NPDES) Permit No. IL0048151 for LaSalle County Station. Section 3.2 of Appendix B (Environmental Protection Plan) of Facility Operating Licenses NPF-11 and NPF-18 requires that a copy of the application for renewal of the NPDES permit be provided to the NRC. Enclosed is LaSalle County Station's November 8, 1993 application for renewal of NPDES Permit IL0048151.

Please direct any questions regarding this matter to this office.

Respectfully,

Gary G. Benes
Gary G. Benes
Nuclear Licensing Administrator

Enclosure

cc: NRC Document Control Desk
A. T. Gody, Jr., Project Manager - NRR
D. Hills, LaSalle Senior Resident Inspector - NRC

a:/NPDES.LTR

JE23

Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690 - 0767

November 8, 1993

CERTIFIED MAIL

Mr. Thomas G. McSwiggin, P. E.
Manager, Permit Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Subject: Renewal of NPDES Permit No. IL0048151
LaSalle County Generating Station

Dear Mr. McSwiggin:

Commonwealth Edison Company hereby submits two copies of Consolidated Permit Application Forms 1 and 2C for the renewal of the subject permit. As confirmed by your letter dated April 22, 1993, the only Form 2C--Part V-A pollutants reported are those required by the station's existing NPDES permit, and no analytical data is presented for outfalls 001(d)--Cooling Water Intake Screen Backwash (Cooling Pond), 001(f)--Auxiliary Reactor Equipment Cooling and Flushing Water and 002--Illinois River Make-Up Water Intake Screen Backwash.

Pollutant levels for all permit-required parameters were derived from station data reported from August, 1992 through July, 1993. In most cases, only one analysis was conducted for all other pollutant data. All color analyses were performed as "true" (i. e. the samples were centrifuged prior to analysis). Mass load values were calculated using average flows.

No recent analytical data is available for outfall 001(e)--Radwaste Treatment System. The last discharge from this outfall occurred in June, 1992. Form 2C, Part V-A information is provided from this single occurrence. While discharge from this outfall is expected to remain a very infrequent event, we do wish to retain the ability to use this outfall point in the future. Therefore, analytical results from the samples obtained during the last permit renewal round have been included. While this data is too old to be considered "valid", we believe that the parameter values are still representative of the discharge. Should this discharge resume on an intermittent basis in the future, we will provide new Form 2C data for the Agency's review.

Form 2C--Part IIB requires descriptions of wastewater treatment processes. While outfall 001--Cooling Pond Blowdown, receives no treatment as wastewater, the circulating water is treated with carbon dioxide for scaling control prior to entry into the station's main condensers. House service water, which is a subwaste stream of outfall 001, is treated with sodium hypochlorite, sodium bromide and polyacrylate for macrofouling control.

No chemical treatment is applied to outfall 001(d)--Cooling Water Intake Screen Backwash, 001(f)--Auxiliary Reactor Equipment Cooling and Flushing Water or outfall 002--Illinois River Make-Up Water Intake Screen Backwash.

Demineralizer Regenerant Wastes (outfall 001(a)) consist of excess sulfuric acid, excess caustic and rinse water used to regenerate the ion exchange resin beds which supply ultra-pure water required for the generating process. In addition, hydrogen peroxide is applied for iron removal, as needed, at a rate of 0.2 gallons per minute. However, due to hydrogen peroxide's reactivity, it is not expected to be present in the discharge.

As noted in the permit application, chlorine is applied as a disinfectant to outfall 001(b)--Sewage Treatment Plant Effluent. Anionic and cationic polymers are applied as treatment chemicals to outfall 001(c)--Wastewater Treatment Plant Effluent. In addition, a small amount of sulfuric acid or caustic may be used if pH adjustment is required.

There also exists the slight possibility that a small amount of nitrites may be discharged from outfall 001(c) when the station's closed cycle bearing cooling water system is drained for service. This system is treated with 400 mg/L nitrite; occurrences of release are expected to be very rare. In the past, the system's 5000 gallon holding tank has discharged, at most, once per year. Due to the fact that the system discharges into outfall 001(c) and that nitrites degrade rapidly under aerobic conditions, we believe that the environmental impact of this discharge is minimal.

A dilute organic cleaning solution may be discharged through outfall 001(e)--Radwaste Treatment System Effluent. Due to the small amount used (approx. 5 gallons per month), and the fact that it combines with an average discharge flow from this outfall of 0.005 MGD, it is not expected that large amounts of this solution will be present.

(Copies of all pertinent Material Safety Data Sheets (MSDSs) have been included in this submittal).

We have voluntarily elected to perform polychlorinated biphenyl (PCB) aroclor screenings of all wastewater discharge points as part of our NPDES permit renewal sampling program. (Analytical data is presented under Part V-C--Pesticides). While we do not expect any PCBs to be present in any of these outfalls, we felt that this screening would provide definitive information to justify our belief and provide evidence that we are in full compliance with all NPDES regulations in this regard.

If there are any questions regarding this submittal, please contact Ms. Julia Wozniak of my staff at (312) 394-4468.

Sincerely,

Jeffrey P. Smith
Supervisor of Water Quality

Attachments (2 copies)

lscsper.ltr
jpw/jps/dc

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Sincerely,

Jeffrey P. Smith
Supervisor of Water Quality

Attachments (2 copies)

bcc: J. V. Schmeltz
P. T. Nottingham
R. H. Varju
J. P. Wozniak (2 copies)
Director of Nuclear Licensing
File: W-01-PER-H2

lscsper.ltr
jpw/jps/dc

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F ILD000803643

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		X
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: LASALLE COUNTY GENERATING STATION

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)

2 SMITH JEFFREY P. SUPV. - WATER QUAL.

B. PHONE (area code & no.): 312 - 394 - 4435

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 P. O. BOX 767 - ENV. SERVICES DEPT.

B. CITY OR TOWN: 4 CHICAGO

C. STATE: IL

D. ZIP CODE: 60690

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 R. R. #1 BOX 220

B. COUNTY NAME: LASALLE

C. CITY OR TOWN: 6 MARSEILLES

D. STATE: IL

E. ZIP CODE: 61341

F. COUNTY CODE (if known)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
4911 (specify) Electrical Generation & Distribution	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: COMMONWEALTH EDISON COMPANY

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other", specify.)
F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify): P (specify)

D. PHONE (area code & no.): A 312 394 4435

E. STREET OR P.O. BOX: P. O. BOX 767 - ENV. SERVICES DEPT.

F. CITY OR TOWN: CHICAGO

G. STATE: IL

H. ZIP CODE: 60690

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	N	ILO048151	
D. PSD (Air Emissions from Proposed Sources)	P		
B. UIC (Underground Injection of Fluids)	U		
E. OTHER (specify)		750400086	(specify) GENERAL AIR OPERATING PERMIT
C. RCRA (Hazardous Wastes)	R		
E. OTHER (specify)			(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

GENERATION AND DISTRIBUTION OF ELECTRIC POWER

XIII. CERTIFICATION (see instructions)

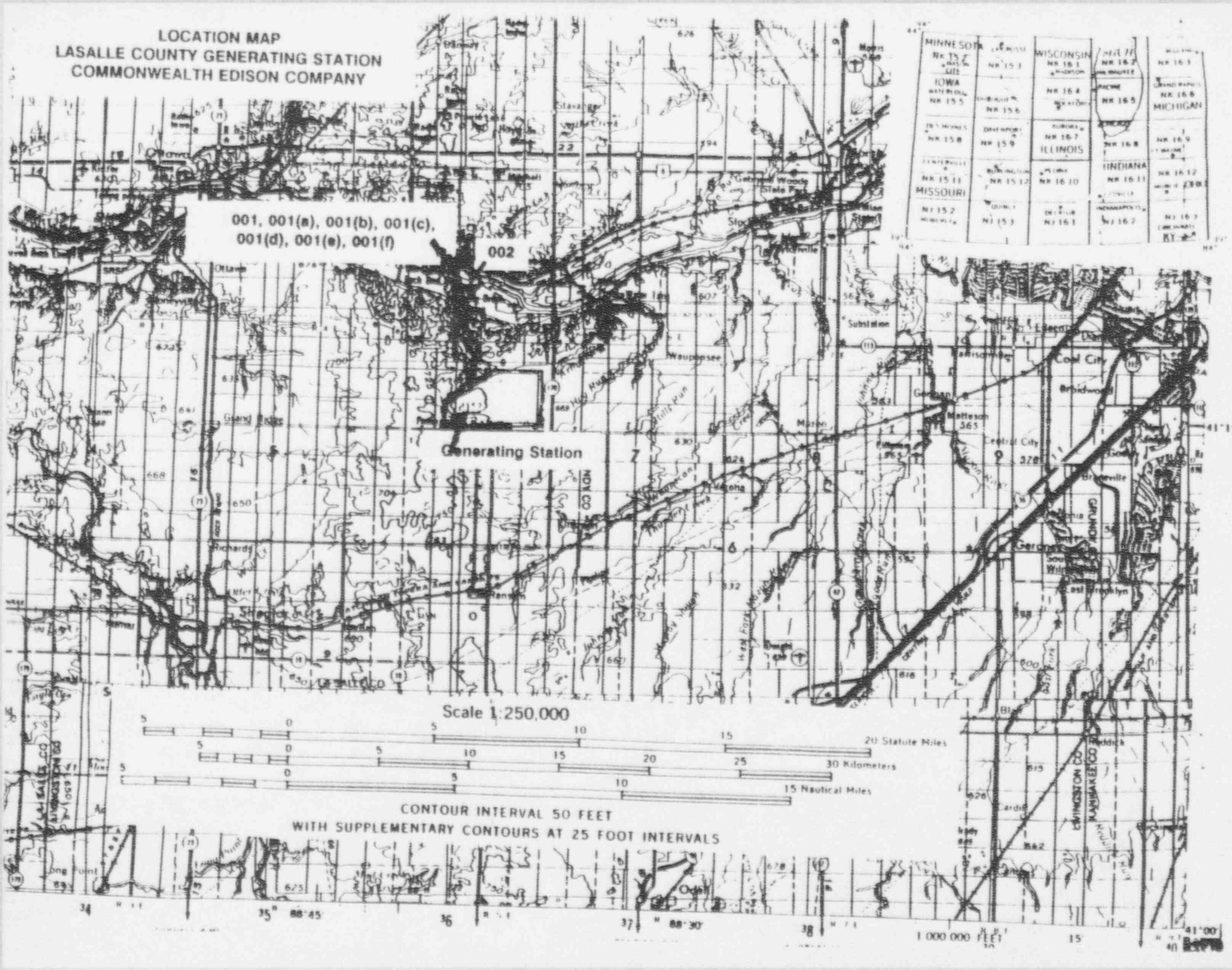
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Robert J. Manning Senior Vice President	11/9/93	11/10/93

COMMENTS FOR OFFICIAL USE ONLY

C

LOCATION MAP
LASALLE COUNTY GENERATING STATION
COMMONWEALTH EDISON COMPANY



Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

Form approved. OMB No. 2040-0059 Approval expires 12-31-85

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE DEG	B. LATITUDE MIN	B. LATITUDE SEC	C. LONGITUDE DEG	C. LONGITUDE MIN	C. LONGITUDE SEC	D. RECEIVING WATER (name)
001	41	18	30	88	40	00	Illinois River
001 (a)	41	18	30	88	40	00	Illinois River
001 (b)	41	18	30	88	40	00	Illinois River
001 (c)	41	18	30	88	40	00	Illinois River
001 (d)	41	18	30	88	40	00	Illinois River
001 (e)	41	18	30	88	40	00	Illinois River
001 (f)	41	18	30	88	40	00	Illinois River
002	41	18	30	88	40	00	Illinois River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list)	2. b. AVERAGE FLOW (include units)	3. TREATMENT a. DESCRIPTION	3. b. LIST CODES FROM TABLE 2C-1	
001	Cooling Pond Blowdown (Condenser	36.83 MGD	Evaporative Heat Dissipation,	X-X	
	Cooling Water, House Service Water		Discharge to Surface Water	4-A	
	Sewage Treatment Plant Effluent,				
	Radwaste Treatment System Effluent,				
	Demineralizer Regenerant Wastes,				
	Wastewater Treatment System Effluent,				
	Auxiliary Reactor Equipment Cooling				
	Water, Cooling Pond Intake Screen				
	Backwash, North Site Uncontaminated				
	Storm Runoff, South Site Uncontaminated				
	Storm Runoff).				
001(a)	Demineralizer Regenerant Wastes	0.1018 MGD	Equalization, Buffering with Cir-	XX	XX
	(Make-up Demineralizer Regenerant		culating Water or Neutralization,		2K
	Waste, Off-Specification Demineralized		Treatment in Wastewater	XX	
	Water, Demineralized Maintenance				
	Wastewater, Unit 1 Waterbox				
	Vacuum Pump Condensate (Lake Water)				
	Radwaste Treatment Acid /Caustic				
	System Drains)				

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

[X] YES (complete the following table) [ ] NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd) 1. LONG TERM AVERAGE	a. FLOW RATE (in mgd) 2. MAXIMUM DAILY	b. TOTAL VOLUME (specify with units) 1. LONG TERM AVERAGE	b. TOTAL VOLUME (specify with units) 2. MAXIMUM DAILY	c. DURATION (in days)
001(e)	Unit 1 and 2 Radwaste Treatment System Effluent *(data from last discharge, in June 1992)	1*	1*	0.0075	0.0075*	7500 gal*	7500 gal*	1

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

[X] YES (complete Item III-B) [ ] NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

[ ] YES (complete Item III-C) [X] NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
N/A	N/A	N/A	N/A

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

[ ] YES (complete the following table) [ ] NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
N/A	N/A		N/A		

B. OPTIONAL. You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. [ ] MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

Please print or type in the unshaded areas only

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ILD000803643

Form Approved.
OMB No. 2000-0059
Approval expires 12-31-85

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	A. OPERATION (list)	B. AVERAGE FLOW (include units)	A. DESCRIPTION	B. LIST CODES FROM TABLE 2C-1	
001(b)	Sewage Treatment Plant Effluent	0.0228 MGD	Equalization, Activated Sludge,	x-X	3-A
			Sedimentation,		1-U
			Sedimentation Disinfection,	1-U	2-F
			Sludge to Aerobic Digestion,	5-A	
			Drying Beds, On-Site Storage	5-H	X-X
001(c)	Wastewater Treatment System Effluent	0.018 MGD	Oil/Water Separation,	X-X	
	(Turbine Building Fire and Miscellaneous		Oil/Water Separation,	X-X	
	Nonradioactive Waste Sump,		Equalization, Coagulation	X-X	2-J
	Demineralizer Make-up Water Filter		Flocculation, Sedimentation,	1-G	1-U
	Backwash, Diesel Fuel Stoarge		Multimedia Filtration,	1-Q	
	and Service Water Building Sump,		Sludge to Drying Beds,	5-H	
	Auxiliary Boiler Blowdown,		On-Site Storage	X-X	
	Demineralizer Regenerant Waste,				
	Water Softener Regenerant Waste).				
001(d)	Cooling Water Intake Screen		Screening	1-T	
	Backwash (Cooling Pond)				
001(e)	Unit 1 and 2 Radwaste Treatment	0.0050 MGD**	Fabric Filtration or Evaporation,	X-X	1-F
	System Effluent **	(Value from	Equalization or Evaporation,	X-X	1-F
	(Equipment drains in the Turbine	previous permit	Ion Exchange, Ion Exchange	2-J	2-J
	Building, Auxiliary Building and	application)	Equalization, Recycle Reuse of	X-X	4-C
	Reactor Building, Floor Drains in		Treated Effluent		
	the Turbine Building, Radwaste Building				
	Auxiliary Building and Reactor				
	Building, Condensate Polisher Wastes				
	from the Turbine Building; Decontamination				
	and Laundry Waste				

OFFICIAL USE ONLY (effluent guidelines sub-categories)

EPA Form 3510-2C (Rev. 2-85)

Please print or type in the unshaded areas only

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

Form Approved. OMB No. 2040-0086 Approval expires 12-31-85

FORM 2C NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001(f)	Auxiliary Reactor Equipment Cooling and Flushing Water		Evaporative Heat Dissipation	X-X	
002	Illinois River Make-Up Water Intake Screen Backwash		Screening, Discharge to Surface Water	1-T	4-A

OFFICIAL USE ONLY (effluent guidelines sub-categories)

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ILD000803643

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
N/A	N/A		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below) ☒ NO (go to Item VI-B)

N/A

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below) ☒ NO (go to Section VIII)

N/A

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) ☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
EMS Heritage Laboratories, Inc.	1319 Marquette Drive Romeoville, Illinois 60441-4054	(815) 378-1600	All Outfalls: Radioactivity

IX. CERTIFICATION

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.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (area code & no.)
Robert J. Manning Senior Vice President	(312) 394-2901

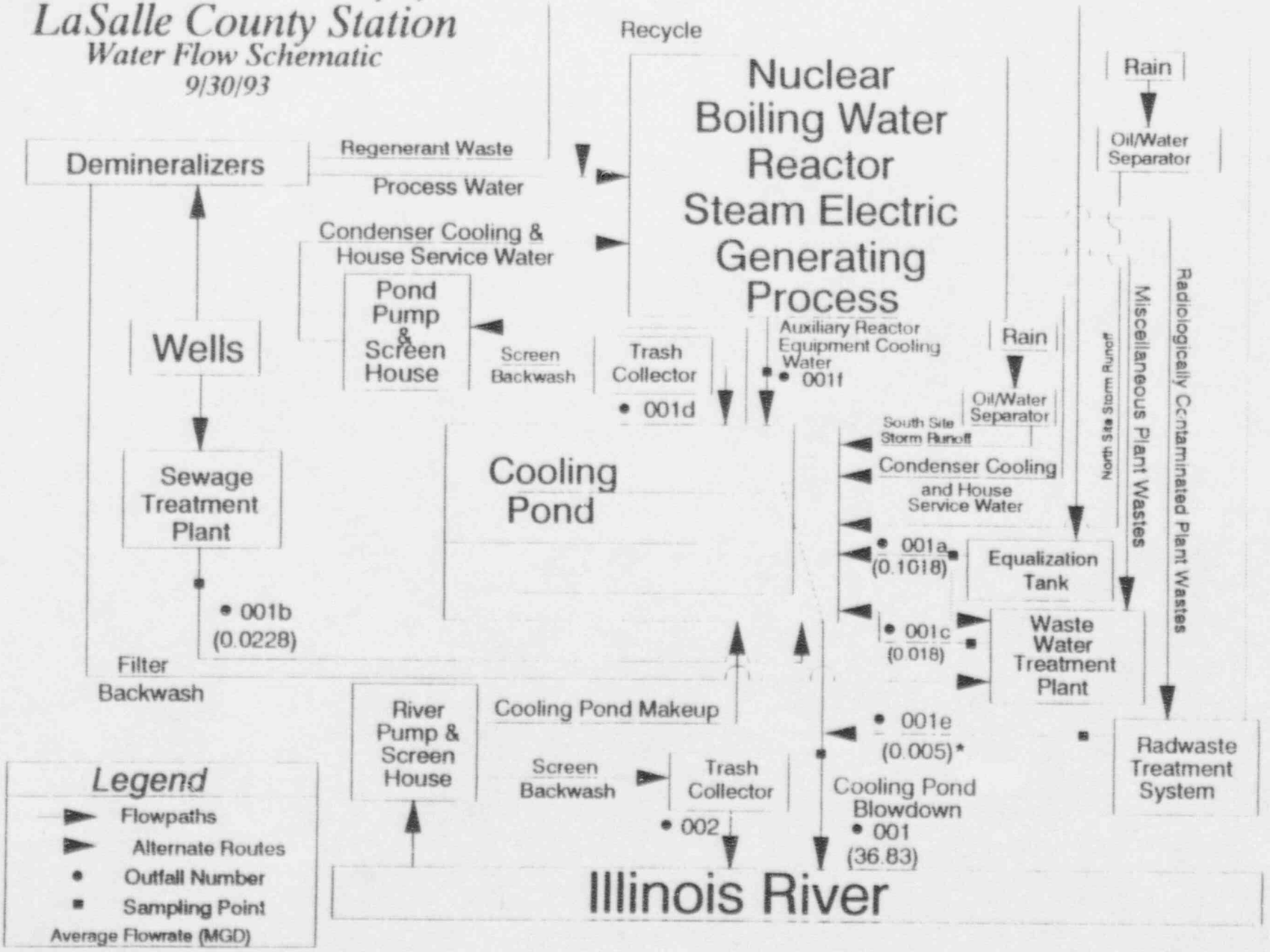
C. SIGNATURE — D. DATE SIGNED

Commonwealth Edison Company

LaSalle County Station

Water Flow Schematic

9/30/93



** Denotes historical value; no recent discharge.*

LaSalle Station

Cooling Pond Blowdown

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

Form Approved. OMB No. 2000-0059. Approval expires 12-31-85

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS (specify if blank) b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)												
e. Ammonia (as N)												
f. Flow	VALUE 67.68		VALUE 51.45		VALUE 36.83		365	MGD		VALUE		
g. Temperature (winter)	VALUE 5.90		VALUE 3.50		VALUE 2.75		365	°C		VALUE		
h. Temperature (summer)	VALUE 33.05		VALUE 30.69		VALUE 27.66		365	°C		VALUE		
i. pH	MINIMUM 7.7	MAXIMUM 8.7	MINIMUM 7.7	MAXIMUM 8.7			52	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (If available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		0.5	153.58					1	mg/l	lb/day	0.5		1
b. Chlorine, Total Residual	X		0.14	43.06					4	mg/l	lb/day	0.21		4
c. Color	X		18						1	Pt-Co		25		1
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.50	153.58					1	mg/l	lb/day	0.32		1
f. Nitrate-Nitrite (as N)	X		0.45	138.22					1	mg/l	lb/day	3.76		1

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (2) MASS	3. d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	X		1.6	491.46					1	mg/l	lb/day	1.1		1
h. Oil and Grease	X		1	307.16					4	mg/l	lb/day	<1		4
i. Phosphorus (as P), Total (7723-14-0)	X		0.08	24.57					1	mg/l	lb/day	0.41		1
j. Radioactivity														
(1) Alpha, Total	X		<3						1	pCi/l	lb/day	<3		1
(2) Beta, Total	X		5.5						1	pCi/l	lb/day	<4		1
(3) Radium, Total	X		<1.0						1	pCi/l	lb/day	<1.0		1
(4) Radium 226, Total	X		<1.0						1	pCi/l	lb/day	<1.0		1
k. Sulfate (as SO_4) (14808-79-8)	X		98	30,101.9					1	mg/l	lb/day	55		1
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants	X		<0.07	<21.50					1	mg/l	lb/day	<0.07		1
o. Aluminum, Total (7429-90-5)	X		0.4	122.86					1	mg/l	lb/day	1.9		1
p. Barium, Total (7440-39-3)	X		<0.1	<30.71					1	mg/l	lb/day	0.2		1
q. Boron, Total (7440-42-8)	X		0.17	52.22					1	mg/l	lb/day	0.11		1
r. Cobalt, Total (7440-48-4)	X		<0.05	<15.36					1	mg/l	lb/day	<0.05		1
s. Iron, Total (7439-89-6)	X		0.33	101.36					1	mg/l	lb/day	2.08		1
t. Magnesium, Total (7439-95-4)	X		35.4	10,873.5					1	mg/l	lb/day	22.4		1
u. Molybdenum, Total (7439-98-7)	X		<0.2	<61.43					1	mg/l	lb/day	<0.2		1
v. Manganese, Total (7439-96-5)	X		<0.03	<9.21					1	mg/l	lb/day	0.07		1
w. Tin, Total (7440-31-5)	X		<0.8	<245.73					1	mg/l	lb/day	<0.8		1
x. Titanium, Total (7440-32-6)	X		<0.8	<245.73					1	mg/l	lb/day	<0.8		1

Cooling Pond
Blowdown

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
ILD000803643	001

CONTINUED FROM PAGE 3 OF FORM 2 C

Form Approved.
OMB No. 2000-0159
Approval expires 12-31-85

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl 4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<0.5	<153.58					1	mg/l	lb/day	<0.5		1
2M. Arsenic, Total (7440-38-2)	X			0.003	0.921					1	mg/l	lb/day	0.002		1
3M. Beryllium, Total, 7440-41-7)	X			<0.01	<3.071					1	mg/l	lb/day	<0.01		1
4M. Cadmium, Total (7440-43-9)	X			<0.0002	<0.0614					1	mg/l	lb/day	0.0006		1
5M. Chromium, Total (7440-47-3)	X			0.003	0.921					1	mg/l	lb/day	0.004		1
6M. Copper, Total (7440-50-8)	X			<0.002	<0.614					1	mg/l	lb/day	0.009		1
7M. Lead, Total (7439-92-1)	X			<0.005	<1.536					1	mg/l	lb/day	<0.005		1
8M. Mercury, Total (7439-97-6)	X			<0.00005	<0.01536					1	mg/l	lb/day	0.00039		1
9M. Nickel, Total (7440-02-0)	X			0.004	1.2286					1	mg/l	lb/day	0.010		1
10M. Selenium, Total (7782-49-2)	X			<0.001	<0.307					1	mg/l	lb/day	<0.001		1
11M. Silver, Total (7440-22-4)	X			0.0007	0.2150					1	mg/l	lb/day	<0.0006		1
12M. Thallium, Total (7440-28-0)	X			<0.001	<0.307					1	mg/l	lb/day	<0.001		1
13M. Zinc, Total (7440-66-6)	X			<0.02	<6.14					1	mg/l	lb/day	0.05		1
14M. Cyanide, Total (57-12-5)	X			<0.008	<2.457					4	mg/l	lb/day	<0.008		4
15M. Phenols, Total	X			<0.005	<1.536					4	mg/l	lb/day	<0.005		4
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			<100	<30.716					1	ug/l	lb/day	<100		1
2V. Acrylonitrile (107-13-1)	X			<100	<30.726					1	ug/l	lb/day	<100		1
3V. Benzene (71-43-2)	X			<5	<1.536					1	ug/l	lb/day	<5		1
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			<5	<1.536					1	ug/l	lb/day	<5		1
6V. Carbon Tetrachloride (56-23-5)	X			<5	<1.536					1	ug/l	lb/day	<5		1
7V. Chlorobenzene (108-90-7)	X			<5	<1.536					1	ug/l	lb/day	<5		1
8V. Chlorodibromomethane (124-48-1)	X			<5	<1.536					1	ug/l	lb/day	<5		1
9V. Chloroethane (75-00-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			<10	<3.072					1	ug/l	lb/day	<10		1
11V. Chloroform (67-66-3)	X			<5	<1.536					1	ug/l	lb/day	<5		1
12V. Dichlorobromomethane (75-27-4)	X			<5	<1.536					1	ug/l	lb/day	<5		1
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X			<5	<1.536					1	ug/l	lb/day	<5		1
15V. 1,2-Dichloroethane (107-06-2)	X			<5	<1.536					1	ug/l	lb/day	<5		1
16V. 1,1-Dichloroethylene (75-35-4)	X			<5	<1.536					1	ug/l	lb/day	<5		1
17V. 1,2-Dichloropropane (78-87-5)	X			<5	<1.536					1	ug/l	lb/day	<5		1
18V. 1,3-Dichloropropylene (542-75-6)	X			<5	<1.536					1	ug/l	lb/day	<5		1
19V. Ethylbenzene (100-41-4)	X			<5	<1.536					1	ug/l	lb/day	<5		1
20V. Methyl Bromide (74-83-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
21V. Methyl Chloride (74-87-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1

ILD000830643 | 001 | OMB No. 2040-0086 Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. BELIEVED AS MEASURED	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<5	<1.536					1	ug/l	lb/day	<5		1
23V. 1,1,2,2 Tetrachloroethane (79-34-5)	X			<5	<1.536					1	ug/l	lb/day	<5		1
24V. Tetrachloroethylene (127-18-4)	X			<5	<1.536					1	ug/l	lb/day	<5		1
25V. Toluene (108-88-3)	X			<5	<1.536					1	ug/l	lb/day	<5		1
28V. 1,2 Trans Dichloroethylene (156-60-5)	X			<5	<1.536					1	ug/l	lb/day	<5		1
27V. 1,1,1 Trichloroethane (71-55-6)	X			<5	<1.536					1	ug/l	lb/day	<5		1
28V. 1,1,2 Trichloroethane (79-00-5)	X			<5	<1.536					1	ug/l	lb/day	<5		1
29V. Trichloroethylene (79-01-6)	X			<5	<1.536					1	ug/l	lb/day	<5		1
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X			<10	<3.072					1	ug/l	lb/day	<10		1
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			<10	<3.072					1	ug/l	lb/day	<10		1
2A. 2,4 Dichlorophenol (120-83-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
3A. 2,4 Dimethylphenol (105-67-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
4A. 4,6 Dinitro O Cresol (534-52-1)	X			<50	<15.358					1	ug/l	lb/day	<50		1
5A. 2,4 Dinitrophenol (51-28-5)	X			<50	<15.358					1	ug/l	lb/day	<50		1
6A. 2 Nitrophenol (88-75-5)	X			<10	<3.072					1	ug/l	lb/day	<10		1
7A. 4 Nitrophenol (100-02-7)	X			<50	<15.358					1	ug/l	lb/day	<50		1
8A. P Chloro M Cresol (59-50-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
9A. Pentachlorophenol (87-86-5)	X			<50	<15.358					1	ug/l	lb/day	<50		1
10A. Phenol (108-95-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
11A. 2,4,6 Trichlorophenol (88-06-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
2B. Acenaphtylene (208-96-8)	X			<10	<3.072					1	ug/l	lb/day	<10		1
3B. Anthracene (120-12-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
4B. Benzidine (92-87-5)	X			<50	<15.358					1	ug/l	lb/day	<50		1
5B. Benzo (a) Anthracene (56-55-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
6B. Benzo (a) Pyrene (50-32-8)	X			<10	<3.072					1	ug/l	lb/day	<10		1
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
8B. Benzo (ghi) Perylene (191-24-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
9B. Benzo (k) Fluoranthene (207-08-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X			<10	<3.072					1	ug/l	lb/day	<10		1
12B. Bis (2-Chloro-propyl) Ether (102-80-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
16B. 2-Chloro-naphthalene (91-58-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
18B. Chrysene (218-01-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
19B. Dibenzo (a,h) Anthracene (53-70-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1

CONTINUED FROM PAGE V-5

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

OUTFALL NUMBER: 001

Cooling Pond Blowdown

Form Approved. OMB No. 2040-0059. Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. BELIEVED PRESENT, BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
23B. 3,3'-Dichlorobenzidine (91-94-1)	X			<20	<6.143					1	ug/l	lb/day	<20		1
24B. Diethyl Phthalate (84-66-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
25B. Dimethyl Phthalate (131-11-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
27B. 2,4-Dinitrotoluene (121-14-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
28B. 2,6-Dinitrotoluene (606-20-2)	X			<10	<3.072					1	ug/l	lb/day	<10		1
29B. Di-N-Octyl Phthalate (117-84-0)	X			<10	<3.072					1	ug/l	lb/day	<10		1
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<20	<6.143					1	ug/l	lb/day	<20		1
31B. Fluoranthene (206-44-0)	X			<10	<3.072					1	ug/l	lb/day	<10		1
32B. Fluorene (86-73-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1
33B. Hexachlorobenzene (118-74-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
34B. Hexachlorobutadiene (87-68-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
35B. Hexachlorocyclopentadiene (77-47-4)	X			<10	<3.072					1	ug/l	lb/day	<10		1
36B. Hexachloroethane (67-72-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<10	<3.072					1	ug/l	lb/day	<10		1
38B. Isophorone (78-59-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
39B. Naphthalene (91-20-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
40B. Nitrobenzene (98-95-3)	X			<10	<3.072					1	ug/l	lb/day	<10		1
41B. N-Nitrosodimethylamine (62-75-9)	X			<10	<3.072					1	ug/l	lb/day	<10		1
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10	<3.072					1	ug/l	lb/day	<10		1

EPA Form 3510-2C (R... 3-85)

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' a. Testing required	b. Believed present	c. Believed absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) Concentration	(2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration	(2) Mass	c. LONG TERM AVRG. VALUE (if available) (1) Concentration	(2) Mass	d. NO. OF ANALYSES	4. UNITS a. Concentration	b. Mass	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) Concentration	(2) Mass	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)	X			<10	<3.072					1	ug/l	lb/day	<10		1
44B. Phenanthrene (85-01-8)	X			<10	<3.072					1	ug/l	lb/day	<10		1
45B. Pyrene (129-00-0)	X			<10	<3.072					1	ug/l	lb/day	<10		1
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10	<3.072					1	ug/l	lb/day	<10		1
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD 000803643

OUTFALL NUMBER: 001

Cooling Pond Blowdown

Form Approved
OMB No. 2040-0059
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK X a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. REQUIRED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB 1242 (53469-21-9)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
19P. PCB 1254 (11097-69-1)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
20P. PCB 1221 (11104-28-2)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
21P. PCB 1232 (11141-16-5)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
22P. PCB 1248 (12672-29-6)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
23P. PCB 1260 (11096-82-5)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
24P. PCB 1016 (12674-11-2)			X	<0.2	<0.061					1	ug/l	lb/day	<0.2		1
25P. Toxaphene (8001-35-2)			X												

LaSalle Station

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD 000803643

Demin. Regen Waste

Form Approved. OMB No. 2040-0059. Approval expires 12-31-85

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO: 001(a)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS (specify if blank) b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)	15	12.73	6.92	4.99	2.81	2.38	52	mg/l	lb/day			
e. Ammonia (as N)												
f. Flow	VALUE 0.17		VALUE 0.14		VALUE 0.1018		365		MGD	VALUE		
g. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (If available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color	X		<1						1	Pt-Co				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.46	0.390					1	mg/l	lb/day			
f. Nitrate-Nitrite (as N)	X		0.16	0.136					1	mg/l	lb/day			

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. Maximum Daily Value (1) Concentration	a. Maximum Daily Value (2) Mass	b. Maximum 30 Day Value (if available) (1) Concentration	b. (2) Mass	c. Long Term Avrg. Value (if available) (1) Concentration	c. (2) Mass	d. No. of Analyses	4. UNITS a. Concentration	4. UNITS b. Mass	5. INTAKE (optional) a. Long Term Average Value (1) Concentration	a. (2) Mass	b. No. of Analyses
g. Nitrogen, Total Organic (as N)	X		<0.4	<0.340					1	mg/l	lb/day			
h. Oil and Grease	X		1	0.849					1	mg/l	lb/day			
i. Phosphorus (as P), Total (7723-14-0)	X		0.03	0.025					1	mg/l	lb/day			
j. Radioactivity														
(1) Alpha, Total	X		<3						1	pCi/l				
(2) Beta, Total	X		5.0						1	pCi/l				
(3) Radium, Total	X		2.2						1	pCi/l				
(4) Radium 226, Total	X		2.6						1	pCi/l				
k. Sulfate (as SO_4) (14808-79-8)	X		680	577.33					1	mg/l	lb/day			
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants	X		<0.07	<0.059					1	mg/l	lb/day			
o. Aluminum, Total (7429-90-5)	X		<0.3	<0.255					1	mg/l	lb/day			
p. Barium, Total (7440-39-3)	X		<0.1	<0.085					1	mg/l	lb/day			
q. Boron, Total (7440-42-8)	X		0.31	0.263					1	mg/l	lb/day			
r. Cobalt, Total (7440-48-4)	X		<0.05	<0.042					1	mg/l	lb/day			
s. Iron, Total (7439-89-6)	X		0.82	0.696					1	mg/l	lb/day			
t. Magnesium, Total (7439-95-4)	X		15.4	13.075					1	mg/l	lb/day			
u. Molybdenum, Total (7439-98-7)	X		<0.2	<0.170					1	mg/l	lb/day			
v. Manganese, Total (7439-96-5)	X		<0.003	<0.025					1	mg/l	lb/day			
w. Tin, Total (7440-31-5)	X		<0.8	<0.679					1	mg/l	lb/day			
x. Titanium, Total (7440-32-6)	X		<0.8	<0.679					1	mg/l	lb/day			

CONTINUE ON PAGE V-3

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER	
ILD000803643	001a	Demin. Reg. Waste

Form Approved
OMB No. 2040-0059
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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			<0.5	<0.424					1	mg/l	lb/day			
2M. Arsenic, Total (7440-38-2)	X			<0.001	<0.0008					1	mg/l	lb/day			
3M. Beryllium, Total, 7440-41-7)	X			<0.01	<0.0084					1	mg/l	lb/day			
4M. Cadmium, Total (7440-43-9)	X			<0.0002	<0.0002					1	mg/l	lb/day			
5M. Chromium, Total (7440-47-3)	X			0.022	0.0187					1	mg/l	lb/day			
6M. Copper, Total (7440-50-8)	X			0.004	<0.0034					1	mg/l	lb/day			
7M. Lead, Total (7439-92-1)	X			<0.005	<0.0042					1	mg/l	lb/day			
8M. Mercury, Total (7439-97-6)	X			0.00009	<0.00008					1	mg/l	lb/day			
9M. Nickel, Total (7440-02-0)	X			0.029	0.0246					1	mg/l	lb/day			
10M. Selenium, Total (7782-49-2)	X			<0.001	<0.0008					1	mg/l	lb/day			
11M. Silver, Total (7440-22-4)	X			<0.0006	<0.0005					1	mg/l	lb/day			
12M. Thallium, Total (7440-28-0)	X			<0.001	<0.0008					1	mg/l	lb/day			
13M. Zinc, Total (7440-66-6)	X			0.36	0.3056					1	mg/l	lb/day			
14M. Cyanide, Total (57-12-5)	X			<0.008	<0.0068					1	mg/l	lb/day			
15M. Phenols, Total	X			<0.005	<0.0042					1	mg/l	lb/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo P Dioxin (1784-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			<100	<0.085										
2V. Acrylonitrile (107-13-1)	X			<100	<0.085										
3V. Benzene (71-43-2)	X			<5	<0.004					1	ug/l	lb/day			
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			<5	<0.004					1	ug/l	lb/day			
6V. Carbon Tetrachloride (56-23-5)	X			<5	<0.004					1	ug/l	lb/day			
7V. Chlorobenzene (108-90-7)	X			<5	<0.004					1	ug/l	lb/day			
8V. Chlorodibromomethane (124-48-1)	X			<5	<0.004					1	ug/l	lb/day			
9V. Chloroethane (75-00-3)	X			<10	<0.008					1	ug/l	lb/day			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			<10	<0.008					1	ug/l	lb/day			
11V. Chloroform (67-66-3)	X			<5	<0.004					1	ug/l	lb/day			
12V. Dichlorobromomethane (75-27-4)	X			<5	<0.004					1	ug/l	lb/day			
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X			<5	<0.004					1	ug/l	lb/day			
15V. 1,2-Dichloroethane (107-06-2)	X			<5	<0.004					1	ug/l	lb/day			
16V. 1,1-Dichloroethylene (75-35-4)	X			<5	<0.004					1	ug/l	lb/day			
17V. 1,2-Dichloropropane (78-87-5)	X			<5	<0.004					1	ug/l	lb/day			
18V 1,3-Dichloropropylene (542-75-6)	X			<5	<0.004					1	ug/l	lb/day			
19V. Ethylbenzene (100-41-4)	X			<5	<0.004					1	ug/l	lb/day			
20V. Methyl Bromide (74-83-9)	X			<10	<0.008					1	ug/l	lb/day			
21V. Methyl Chloride (74-87-3)	X			<10	<0.008					1	ug/l	lb/day			

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CONTINUED FROM PAGE V 4

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD 000803643

OUTFALL NUMBER: 001a

Demin.

Regen

Form 3510-2C
OMB No. 2040-0086
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTED	b. REQUIRED	c. NOT REQUIRED	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. (2) MASS	3. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			<5	<0.004					1	ug/l	lb/day			
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			<5	<0.004					1	ug/l	lb/day			
24V. Tetrachloroethylene (127-18-4)	X			<5	<0.004					1	ug/l	lb/day			
25V. Toluene (108-88-3)	X			<5	<0.004					1	ug/l	lb/day			
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			<5	<0.004					1	ug/l	lb/day			
27V. 1,1,1-Trichloroethane (71-55-6)	X			<5	<0.004					1	ug/l	lb/day			
28V. 1,1,2-Trichloroethane (79-00-5)	X			<5	<0.004					1	ug/l	lb/day			
29V. Trichloroethylene (79-01-6)	X			<5	<0.004					1	ug/l	lb/day			
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X			<10	<0.008					1	ug/l	lb/day			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			<10	<0.008					1	ug/l	lb/day			
2A. 2,4-Dichlorophenol (120-83-2)	X			<10	<0.008					1	ug/l	lb/day			
3A. 2,4-Dimethylphenol (105-67-9)	X			<10	<0.008					1	ug/l	lb/day			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50	<0.042					1	ug/l	lb/day			
5A. 2,4-Dinitrophenol (51-28-5)	X			<50	<0.042					1	ug/l	lb/day			
6A. 2-Nitrophenol (88-75-5)	X			<10	<0.008					1	ug/l	lb/day			
7A. 4-Nitrophenol (100-02-7)	X			<50	<0.042					1	ug/l	lb/day			
8A. P-Chloro-M-Cresol (59-50-7)	X			<10	<0.008					1	ug/l	lb/day			
9A. Pentachlorophenol (87-86-5)	X			<50	<0.042					1	ug/l	lb/day			
10A. Phenol (108-95-2)	X			<10	<0.008					1	ug/l	lb/day			
11A. 2,4,6-Trichlorophenol (88-06-2)	X			<10	<0.008					1	ug/l	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' a. TEST (INCLUDED)	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (If available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)				<10	<0.008					1	ug/l	lb/day			
2B. Acenaphtylene (208-96-8)				<10	<0.0.					1	ug/l	lb/day			
3B. Anthracene (120-12-7)				<10	<0.008					1	ug/l	lb/day			
4B. Benzidine (92-87-5)				<50	<0.042					1	ug/l	lb/day			
5B. Benzo (a) Anthracene (56-55-3)				<10	<0.008					1	ug/l	lb/day			
6B. Benzo (a) Pyrene (50-32-8)				<10	<0.008					1	ug/l	lb/day			
7B. 3,4-Benzo-fluoranthene (206-99-2)				<10	<0.008					1	ug/l	lb/day			
8B. Benzo (ghi) Perylene (191-24-2)				<10	<0.008					1	ug/l	lb/day			
9B. Benzo (k) Fluoranthene (207-08-9)				<10	<0.008					1	ug/l	lb/day			
10B. Bis (2 Chloro ethoxy) Methane (111-91-1)				<10	<0.008					1	ug/l	lb/day			
11B. Bis (2 Chloro ethyl) Ether (111-44-4)				<10	<0.008					1	ug/l	lb/day			
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)				<10	<0.008					1	ug/l	lb/day			
13B. Bis (2 Ethyl-hexyl) Phthalate (117-81-7)				<10	<0.008					1	ug/l	lb/day			
14B. 4-Bromo phenyl Phenyl Ether (101-55-3)				<10	<0.008					1	ug/l	lb/day			
15B. Butyl Benzyl Phthalate (85-68-7)				<10	<0.008					1	ug/l	lb/day			
16B. 2-Chloro naphthalene (91-58-7)				<10	<0.008					1	ug/l	lb/day			
17B. 4-Chloro phenyl Phenyl Ether (7005-72-3)				<10	<0.008					1	ug/l	lb/day			
18B. Chrysene (218-01-9)				<10	<0.008					1	ug/l	lb/day			
19B. Dibenzo (a,h) Anthracene (53-70-3)				<10	<0.008					1	ug/l	lb/day			
20B. 1,2-Dichloro-benzene (95-50-1)				<10	<0.008					1	ug/l	lb/day			
21B. 1,3-Dichloro-benzene (541-73-1)				<10	<0.008					1	ug/l	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1) ILD 000803643 | OUTFALL NUMBER 001(a) | Demin.

Form Approved OMB No. 2040-0059 Approval expires 12-31-85

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4 Dichlorobenzene (106-46-7)	X			<10	<0.008					1	ug/l	lb/day			
23B. 3,3' Dichlorobenzidine (91-94-1)	X			<20	<0.017					1	ug/l	lb/day			
24B. Diethyl Phthalate (84-66-2)	X			<10	<0.008					1	ug/l	lb/day			
25B. Dimethyl Phthalate (131-11-3)	X			<10	<0.008					1	ug/l	lb/day			
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10	<0.008					1	ug/l	lb/day			
27B. 2,4 Dinitrotoluene (121-14-2)	X			<10	<0.008					1	ug/l	lb/day			
28B. 2,6 Dinitrotoluene (606-20-2)	X			<10	<0.008					1	ug/l	lb/day			
29B. Di-N-Octyl Phthalate (117-84-0)	X			<10	<0.008					1	ug/l	lb/day			
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<20	<0.017					1	ug/l	lb/day			
31B. Fluoranthene (206-44-0)	X			<10	<0.008					1	ug/l	lb/day			
32B. Fluorene (86-73-7)	X			<10	<0.008					1	ug/l	lb/day			
33B. Hexachlorobenzene (118-74-1)	X			<10	<0.008					1	ug/l	lb/day			
34B. Hexachlorobutadiene (87-68-3)	X			<10	<0.008					1	ug/l	lb/day			
35B. Hexachlorocyclopentadiene (77-47-4)	X			<10	<0.008					1	ug/l	lb/day			
36B. Hexachloroethane (67-72-1)	X			<10	<0.008					1	ug/l	lb/day			
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<10	<0.008					1	ug/l	lb/day			
38B. Isophorone (78-59-1)	X			<10	<0.008					1	ug/l	lb/day			
39B. Naphthalene (91-20-3)	X			<10	<0.008					1	ug/l	lb/day			
40B. Nitrobenzene (98-95-3)	X			<10	<0.008					1	ug/l	lb/day			
41B. N-Nitrosodimethylamine (62-75-9)	X			<10	<0.008					1	ug/l	lb/day			
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10	<0.008					1	ug/l	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. REQUIRED ANALYSIS	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)	X			<10	<0.008					1	ug/l	lb/day			
44B. Phenanthrene (85-01-8)	X			<10	<0.008					1	ug/l	lb/day			
45B. Pyrene (129-00-0)	X			<10	<0.008					1	ug/l	lb/day			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10	<0.008					1	ug/l	lb/day			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVG. VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVG. VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB 1242 (53469-21-9)			X	<0.2	<0.0002					1	ug/l	lb/day			
19P. PCB 1254 (11097-69-1)			X	<0.2	<0.0002					1	ug/l	lb/day			
20P. PCB 1221 (11104-28-2)			X	<0.2	<0.0002					1	ug/l	lb/day			
21P. PCB 1232 (11141-16-5)			X	<0.2	<0.0002					1	ug/l	lb/day			
22P. PCB 1248 (12672-29-6)			X	<0.2	<0.0002					1	ug/l	lb/day			
23P. PCB 1260 (11096-82-5)			X	<0.2	<0.0002					1	ug/l	lb/day			
24P. PCB 1016 (12674-11-2)			X	<0.2	<0.0002					1	ug/l	lb/day			
25P. Toxaphene (8001-35-2)			X												

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803064 3

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Form Approved. OMB No. 2040-0059. Approval expires 12-31-85

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 001(b)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS (specify if blank) b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	31	5.89	14.7	2.79	12.91	2.45	12	mg/l	lb/day			
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)	35	6.65	14.0	2.66	11.9	2.26	12	mg/l	lb/day			
e. Ammonia (as N)												
f. Flow	VALUE 0.0886		VALUE 0.0522		VALUE 0.0228		365		MGD			
g. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.2	MAXIMUM 8.3	MINIMUM 7.2	MAXIMUM 8.3			12	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly or indirectly but expressly in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
Bromide (24959-67-9)		X												
Chlorine, Total Residual	X		8.6	1.635			7.67	1.46	4	mg/l	lb/day			
Color	X		34	6.465					1	Pt-Co				
Fecal Coliform	X		9		3		3		12	#Col/100 ml				
Fluoride (16984-48-8)	X		0.53	0.101					1	mg/l	lb/day			
Nitrate-Nitrite (as N)	X		1.89	0.359					1	mg/l	lb/day			

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X' a. Believed present	2. MARK 'X' b. Believed absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) Concentration	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) Mass	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (1) Concentration	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (2) Mass	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (1) Concentration	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (2) Mass	3. EFFLUENT d. NO OF ANALYSES	4. UNITS a. Concentration	4. UNITS b. Mass	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) Concentration	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) Mass	5. INTAKE (optional) b. NO OF ANALYSES
g. Nitrogen, Total Organic (as N)	X		2.1	0.399					1	mg/l	lb/day			
h. Oil and Grease	X		6	1.141			4		4	mg/l	lb/day			
i. Phosphorus (as P), Total (7723-14-0)			2.07	0.394					1	mg/l	lb/day			
j. Radioactivity														
(1) Alpha, Total	X		<3						1	mg/l	lb/day			
(2) Beta, Total	X		15						1	mg/l	lb/day			
(3) Radium, Total	X		<1.0						1	mg/l	lb/day			
(4) Radium 226, Total	X		<1.0						1	mg/l	lb/day			
k. Sulfate (as SO_4) (14808-79-8)	X		210	39.932					1	mg/l	lb/day			
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants	X		0.07	0.013					1	mg/l	lb/day			
o. Aluminum, Total (7429-90-5)	X		<0.3	<0.057					1	mg/l	lb/day			
p. Barium, Total (7440-39-3)	X		0.1	0.019					1	mg/l	lb/day			
q. Boron, Total (7440-42-8)	X		0.41	0.078					1	mg/l	lb/day			
r. Cobalt, Total (7440-48-4)	X		<0.05	<0.009					1	mg/l	lb/day			
s. Iron, Total (7439-89-6)	X		0.25	0.047					1	mg/l	lb/day			
t. Magnesium, Total (7439-95-4)	X		38.8	7.378					1	mg/l	lb/day			
u. Molybdenum, Total (7439-98-7)	X		<0.2	<0.038					1	mg/l	lb/day			
v. Manganese, Total (7439-96-5)	X		0.10	0.019					1	mg/l	lb/day			
w. Tin, Total (7440-31-5)	X		<0.8	<0.152					1	mg/l	lb/day			
x. Titanium, Total (7440-32-6)	X		<0.8	<0.152					1	mg/l	lb/day			

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER	STP
ILD000803643	001(b)	LaSalle

CONTINUED FROM PAGE 3 OF FORM 2 C

Form Approved
OMB No. 2040-0059
Approval expires 12-31-85

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl 4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			< 0.5	< 0.095					1	mg/l	lb/day			
2M. Arsenic, Total (7440-38-2)	X			0.002	0.0004					1	mg/l	lb/day			
3M. Beryllium, Total, 7440-41-7)	X			<0.01	<0.0019					1	mg/l	lb/day			
4M. Cadmium, Total (7440-43-9)	X			<0.0002	<0.0004					1	mg/l	lb/day			
5M. Chromium, Total (7440-47-3)	X			0.005	0.0009					1	mg/l	lb/day			
6M. Copper, Total (7440-50-8)	X			<0.002	<0.0004					1	mg/l	lb/day			
7M. Lead, Total (7439-92-1)	X			<0.005	<0.0009					1	mg/l	lb/day			
8M. Mercury, Total (7439-97-6)	X			<0.00005	<0.000009					1	mg/l	lb/day			
9M. Nickel, Total (7440-02-0)	X			0.007	0.0013					1	mg/l	lb/day			
10M. Selenium, Total (7782-49-2)	X			<0.001	<0.0002					1	mg/l	lb/day			
11M. Silver, Total (7440-22-4)	X			<0.0006	<0.0001					1	mg/l	lb/day			
12M. Thallium, Total (7440-28-0)	X			<0.001	<0.0002					1	mg/l	lb/day			
13M. Zinc, Total (7440-66-6)	X			0.05	0.0095					1	mg/l	lb/day			
14M. Cyanide, Total (57-12-5)	X			0.060	0.0114			0.029		4	mg/l	lb/day			
15M. Phenols, Total	X			<0.005	<0.0009					1	mg/l	lb/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST INCLUDED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			<100	<0.019					1	ug/l	lb/day			
2V. Acrylonitrile (107-13-1)	X			<100	<0.019					1	ug/l	lb/day			
3V. Benzene (71-43-2)	X			<5	<0.0009					1	ug/l	lb/day			
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			<5	<0.0009					1	ug/l	lb/day			
6V. Carbon Tetrachloride (56-23-5)	X			<5	<0.0009					1	ug/l	lb/day			
7V. Chlorobenzene (108-90-7)	X			<5	<0.0009					1	ug/l	lb/day			
8V. Chlorodibromomethane (124-48-1)	X			<5	<0.0009					1	ug/l	lb/day			
9V. Chloroethane (75-00-3)	X			<10	<0.0019					1	ug/l	lb/day			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			<10	<0.0019					1	ug/l	lb/day			
11V. Chloroform (67-66-3)	X			<5	<0.0009					1	ug/l	lb/day			
12V. Dichlorobromomethane (75-27-4)	X			<5	<0.0009					1	ug/l	lb/day			
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X			<5	<0.0009					1	ug/l	lb/day			
15V. 1,2-Dichloroethane (107-06-2)	X			<5	<0.0009					1	ug/l	lb/day			
16V. 1,1-Dichloroethylene (75-35-4)	X			<5	<0.0009					1	ug/l	lb/day			
17V. 1,2-Dichloropropane (78-87-5)	X			<5	<0.0009					1	ug/l	lb/day			
18V. 1,3-Dichloropropylene (542-75-6)	X			<5	<0.0009					1	ug/l	lb/day			
19V. Ethylbenzene (100-41-4)	X			<5	<0.0009					1	ug/l	lb/day			
20V. Methyl Bromide (74-83-9)	X			<10	<0.0019					1	ug/l	lb/day			
21V. Methyl Chloride (74-87-3)	X			<10	<0.0019					1	ug/l	lb/day			

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10	<0.0019					1	ug/l	lb/day			
2B. Acenaphtylene (208-96-8)	X			<10	<0.0019					1	ug/l	lb/day			
3B. Anthracene (120-12-7)	X			<5	<0.0009					1	ug/l	lb/day			
4B. Benzidine (92-87-5)	X			<50	<0.0095					1	ug/l	lb/day			
5B. Benzo (a) Anthracene (56-55-3)	X			<10	<0.0019					1	ug/l	lb/day			
6B. Benzo (a) Pyrene (50-32-8)	X			<10	<0.0019					1	ug/l	lb/day			
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			<10	<0.0019					1	ug/l	lb/day			
8B. Benzo (ghi) Perylene (191-24-2)	X			<10	<0.0019					1	ug/l	lb/day			
9B. Benzo (k) Fluoranthene (207-08-9)	X			<10	<0.0019					1	ug/l	lb/day			
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X			<10	<0.0019					1	ug/l	lb/day			
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X			<10	<0.0019					1	ug/l	lb/day			
12B. Bis (2-Chloroiso-propyl) Ether (102-80-1)	X			<10	<0.0019					1	ug/l	lb/day			
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X			<10	<0.0019					1	ug/l	lb/day			
14B. 4-Bromo phenyl Phenyl Ether (101-55-3)	X			<10	<0.0019					1	ug/l	lb/day			
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10	<0.0019					1	ug/l	lb/day			
16B. 2-Chloro naphthalene (91-58-7)	X			<10	<0.0019					1	ug/l	lb/day			
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			<10	<0.0019					1	ug/l	lb/day			
18B. Chrysene (218-01-9)	X			<10	<0.0019					1	ug/l	lb/day			
19B. Dibenzo (a,h) Anthracene (53-70-3)	X			<10	<0.0019					1	ug/l	lb/day			
20B. 1,2-Dichloro-benzene (95-50-1)	X			<10	<0.0019					1	ug/l	lb/day			
21B. 1,3-Dichloro-benzene (541-73-1)	X			<10	<0.0019					1	ug/l	lb/day			

CONTINUE ON PAGE V-7

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	X			<10	<0.0019					1	ug/l	lb/day			
23V. 1,1,2,2 Tetrachloroethane (79-34-5)	X			<5	<0.0009					1	ug/l	lb/day			
24V. Tetrachloroethylene (127-18-4)	X			<5	<0.0009					1	ug/l	lb/day			
25V. Toluene (108-88-3)	X			<5	<0.0009					1	ug/l	lb/day			
26V. 1,2-Trans Dichloroethylene (156-60-5)	X			<5	<0.0009					1	ug/l	lb/day			
27V. 1,1,1-Trichloroethane (71-55-6)	X			<5	<0.0009					1	ug/l	lb/day			
28V. 1,1,2-Trichloroethane (79-00-5)	X			<5	<0.0009					1	ug/l	lb/day			
29V. Trichloroethylene (79-01-6)	X			<5	<0.0009					1	ug/l	lb/day			
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X			<10	<0.0019					1	ug/l	lb/day			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			<10	<0.0019					1	ug/l	lb/day			
2A. 2,4-Dichlorophenol (120-83-2)	X			<10	<0.0019					1	ug/l	lb/day			
3A. 2,4-Dimethylphenol (105-67-9)	X			<10	<0.0019					1	ug/l	lb/day			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50	<0.0095					1	ug/l	lb/day			
5A. 2,4-Dinitrophenol (51-28-5)	X			<50	<0.0095					1	ug/l	lb/day			
6A. 2-Nitrophenol (88-75-5)	X			<10	<0.0019					1	ug/l	lb/day			
7A. 4-Nitrophenol (100-02-7)	X			<50	<0.0095					1	ug/l	lb/day			
8A. P-Chloro-M-Cresol (59-50-7)	X			<10	<0.0019					1	ug/l	lb/day			
9A. Pentachlorophenol (87-86-5)	X			<50	<0.0095					1	ug/l	lb/day			
10A. Phenol (108-95-2)	X			<10	<0.0019					1	ug/l	lb/day			
11A. 2,4,6-Trichlorophenol (88-06-2)	X			<10	<0.0019					1	ug/l	lb/day			

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001(b) STP LaSalle

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitro-sodiphenylamine (86-30-6)	X			<10	<0.0019					1	ug/l	lb/day			
44B. Phenanthrene (85-01-8)	X			<10	<0.0019					1	ug/l	lb/day			
45B. Pyrene (129-00-0)	X			<10	<0.0019					1	ug/l	lb/day			
46B. 1,2,4 - Tri-chlorobenzene (120-82-1)	X			<10	<0.0019					1	ug/l	lb/day			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

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Form Approved
OMB No. 2040-0059
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. Believed present	b. Believed absent	c. Believed absent	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
228. 1,4-Dichlorobenzene (106-46-7)	X			<10	<0.0019					1	ug/l	lb/day			
238. 3,3'-Dichlorobenzidine (91-94-1)	X			<20	<0.0038					1	ug/l	lb/day			
248. Diethyl Phthalate (84-66-2)	X			<10	<0.0019					1	ug/l	lb/day			
258. Dimethyl Phthalate (131-11-3)	X			<10	<0.0019					1	ug/l	lb/day			
268. Di-N-Butyl Phthalate (84-74-2)	X			<10	<0.0019					1	ug/l	lb/day			
278. 2,4-Dinitrotoluene (121-14-2)	X			<10	<0.0019					1	ug/l	lb/day			
288. 2,6-Dinitrotoluene (606-20-2)	X			<10	<0.0019					1	ug/l	lb/day			
298. Di-N-Octyl Phthalate (117-84-0)	X			<10	<0.0019					1	ug/l	lb/day			
308. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<20	<0.0038					1	ug/l	lb/day			
318. Fluoranthene (206-44-0)	X			<10	<0.0019					1	ug/l	lb/day			
328. Fluorene (86-73-7)	X			<10	<0.0019					1	ug/l	lb/day			
338. Hexachlorobenzene (118-74-1)	X			<10	<0.0019					1	ug/l	lb/day			
348. Hexachlorobutadiene (87-68-3)	X			<10	<0.0019					1	ug/l	lb/day			
358. Hexachlorocyclopentadiene (77-47-4)	X			<10	<0.0019					1	ug/l	lb/day			
368. Hexachloroethane (67-72-1)	X			<10	<0.0019					1	ug/l	lb/day			
378. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<10	<0.0019					1	ug/l	lb/day			
388. Isophorone (78-59-1)	X			<10	<0.0019					1	ug/l	lb/day			
398. Naphthalene (91-20-3)	X			<10	<0.0019					1	ug/l	lb/day			
408. Nitrobenzene (98-95-3)	X			<10	<0.0019					1	ug/l	lb/day			
418. N-Nitrosodimethylamine (62-75-9)	X			<10	<0.0019					1	ug/l	lb/day			
428. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10	<0.0019					1	ug/l	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643 | OUTFALL NUMBER: 001(b) | SIP

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Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTED	b. REQUIRED	c. NOT REQUIRED	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X	<0.2	<0.00004					1	ug/l	lb/day			
19P. PCB-1254 (11097-69-1)			X	<0.2	<0.00004					1	ug/l	lb/day			
20P. PCB-1221 (11104-28-2)			X	<0.2	<0.00004					1	ug/l	lb/day			
21P. PCB-1232 (11141-16-5)			X	<0.2	<0.00004					1	ug/l	lb/day			
22P. PCB-1248 (12672-29-6)			X	<0.2	<0.00004					1	ug/l	lb/day			
23P. PCB-1260 (11096-82-5)			X	<0.2	<0.00004					1	ug/l	lb/day			
24P. PCB-1016 (12674-11-2)			X	<0.2	<0.00004					1	ug/l	lb/day			
25P. Toxaphene (8001-35-2)			X												

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

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WWTP

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 001(c)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS (specify if blank) b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)	13	1.95	3.5	0.52	1.75	0.26	52	mg/L	lb/day			
e. Ammonia (as N)												
f. Flow	VALUE 0.082		VALUE 0.056		VALUE 0.018		365		MGD	VALUE		
g. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.6	MAXIMUM 8.2	MINIMUM 7.6	MAXIMUM 8.2			52	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color	X		4	0.600					1	Pt-Co				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.55	0.083					1	mg/L	lb/day			
f. Nitrate-Nitrite (as N)	X		0.70	0.105					1	mg/L	lb/day			

CONTINUE ON REVERSE

1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X' a. BELIEVED PRESENT	b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	X		1.0	0.150					1	mg/L	lb/day			
h. Oil and Grease	X		8.3	1.246	4.64	0.696	2.1	0.315	52	mg/L	lb/day			
i. Phosphorus (as P), Total (7723-14-0)	X		0.02	0.003					1	mg/L	lb/day			
j. Radioactivity														
(1) Alpha, Total	X		< 3						1	pCi/L				
(2) Beta, Total	X		11						1	pCi/L				
(3) Radium, Total	X		3.9						1	pCi/L				
(4) Radium 226, Total	X		3.9						1	pCi/L				
k. Sulfate (as SO_4) (14808-79-8)	X		1200	180.14					1	mg/L	lb/day			
l. Sulfide (as S)		X												
m. Sulfite (as SO_3^{2-}) (14265-45-3)		X												
n. Surfactants	X		<0.07	<0.010					1	mg/L	lb/day			
o. Aluminum, Total (7429-90-5)	X		<0.3	<0.045					1	mg/L	lb/day			
p. Barium, Total (7440-39-3)	X		<0.1	<0.015					1	mg/L	lb/day			
q. Boron, Total (7440-42-8)	X		0.39	0.058					1	mg/L	lb/day			
r. Cobalt, Total (7440-48-4)	X		<0.05	<0.007					1	mg/L	lb/day			
s. Iron, Total (7439-89-6)	X		0.09	0.013					1	mg/L	lb/day			
t. Magnesium, Total (7439-95-4)	X		58	8.707					1	mg/L	lb/day			
u. Molybdenum, Total (7439-98-7)	X		<0.2	<0.030					1	mg/L	lb/day			
v. Manganese, Total (7439-96-5)	X		0.08	0.012					1	mg/L	lb/day			
w. Tin, Total (7440-31-5)	X		<0.8	<0.120					1	mg/L	lb/day			
x. Titanium, Total (7440-32-6)	X		<0.8	<0.120					1	mg/L	lb/day			

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER	
ILD000803643	001(c)	WWTP

CONTINUED FROM PAGE 3 OF FORM 2 C

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OMB No. 2000-0059
Approval expires 12-31-85

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2-b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl 4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
M. Antimony, otal (7440-36-0)	X			<0.5	<0.075					1	mg/L	lb/day			
M. Arsenic, Total 7440-38-2)	X			<0.001	<0.00015					1	mg/L	lb/day			
M. Beryllium, otal, 7440-41-7)	X			<0.01	<0.0015					1	mg/L	lb/day			
M. Cadmium otal (7440-43-9)	X			0.0002	0.00003					1	mg/L	lb/day			
M. Chromium, otal (7440-47-3)	X			<0.001	<0.00015					1	mg/L	lb/day			
M. Copper, Total 440-50-8)	X			0.003	0.0004					1	mg/L	lb/day			
M. Lead, Total 439-92-1)	X			<0.005	<0.0007					1	mg/L	lb/day			
M. Mercury, Total 439-97-6)	X			<0.00005	<0.00007					1	mg/L	lb/day			
M. Nickel, Total 440-02-0)	X			0.007	0.0010					1	mg/L	lb/day			
M. Selenium, otal (7782-49-2)	X			<0.001	<0.00015					1	mg/L	lb/day			
M. Silver, Total 440-22-4)	X			<0.0006	<0.00019					1	mg/L	lb/day			
M. Thallium, otal (7440-28-0)	X			<0.001	<0.00015					1	mg/L	lb/day			
M. Zinc, Total 440-66-6)	X			0.02	0.0030					1	mg/L	lb/day			
M. Cyanide, otal (57-12-5)	X			<0.008	<0.0012					4	mg/L	lb/day			
M. Phenols, otal	X			<0.005	<0.0007					4	mg/L	lb/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-p-dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	X			<100	<0.015					1	ug/L	lb/day			
2V. Acrylonitrile (107-13-1)	X			<100	<0.015					1	ug/L	lb/day			
3V. Benzene (71-43-2)	X			<5	<0.007					1	ug/L	lb/day			
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)	X			<5	<0.0007					1	ug/L	lb/day			
6V. Carbon Tetrachloride (56-23-5)	X			<5	<0.0007					1	ug/L	lb/day			
7V. Chlorobenzene (108-90-7)	X			<5	<0.0007					1	ug/L	lb/day			
8V. Chlorodibromomethane (124-48-1)	X			<5	<0.0007					1	ug/L	lb/day			
9V. Chloroethane (75-00-3)	X			<10	<0.0015					1	ug/L	lb/day			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			<10	<0.0015					1	ug/L	lb/day			
11V. Chloroform (67-66-3)	X			<5	<0.0007					1	ug/L	lb/day			
12V. Dichlorobromomethane (75-27-4)	X			<5	:0.0007					1	ug/L	lb/day			
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)	X			<5	<0.0007					1	ug/L	lb/day			
15V. 1,2-Dichloroethane (107-06-2)	X			<5	<0.0007					1	ug/L	lb/day			
16V. 1,1-Dichloroethylene (75-35-4)	X			<5	<0.0007					1	ug/L	lb/day			
17V. 1,2-Dichloropropane (78-87-5)	X			<5	<0.0007					1	ug/L	lb/day			
18V. 1,3-Dichloropropylene (542-75-6)	X			<5	<0.0007					1	ug/L	lb/day			
19V. Ethylbenzene (100-41-4)	X			<5	<0.0007					1	ug/L	lb/day			
20V. Methyl Bromide (74-83-9)	X			<10	<0.0015					1	ug/L	lb/day			
21V. Methyl Chloride (74-87-3)	X			<10	<0.0015					1	ug/L	lb/day			

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST INCLUDED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	X			<5	<0.0007					1	ug/L	lb/day			
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			<5	<0.0007					1	ug/L	lb/day			
24V. Tetrachloroethylene (127-18-4)	X			<5	<0.0007					1	ug/L	lb/day			
25V. Toluene (108-88-3)	X			<5	<0.0007					1	ug/L	lb/day			
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			<5	<0.0007					1	ug/L	lb/day			
27V. 1,1,1-Trichloroethane (71-55-6)	X			<5	<0.0007					1	ug/L	lb/day			
28V. 1,1,2-Trichloroethane (79-00-5)	X			<5	<0.0007					1	ug/L	lb/day			
29V. Trichloroethylene (79-01-6)	X			<5	<0.0007					1	ug/L	lb/day			
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)	X			<10	<0.0015					1	ug/L	lb/day			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			<10	<0.0015					1	ug/L	lb/day			
2A. 2,4-Dichlorophenol (120-83-2)	X			<10	<0.0015					1	ug/L	lb/day			
3A. 2,4-Dimethylphenol (105-67-9)	X			<10	<0.0015					1	ug/L	lb/day			
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50	<0.0075					1	ug/L	lb/day			
5A. 2,4-Dinitrophenol (51-28-5)	X			<50	<0.0075					1	ug/L	lb/day			
6A. 2-Nitrophenol (88-75-5)	X			<10	<0.0015					1	ug/L	lb/day			
7A. 4-Nitrophenol (100-02-7)	X			<50	<0.0075					1	ug/L	lb/day			
8A. P-Chloro-M-Cresol (59-50-7)	X			<10	<0.0015					1	ug/L	lb/day			
9A. Pentachlorophenol (87-86-5)	X			<50	<0.0075					1	ug/L	lb/day			
10A. Phenol (108-95-2)	X			<10	<0.0015					1	ug/L	lb/day			
11A. 2,4,6-Trichlorophenol (88-06-2)	X			<10	<0.0015					1	ug/L	lb/day			

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<10	<0.0015					1	ug/L	lb/day			
2B. Acenaphtylene (208-96-8)	X			<10	<0.0015					1	ug/L	lb/day			
3B. Anthracene (120-12-7)	X			<10	<0.0015					1	ug/L	lb/day			
4B. Benzidine (92-87-5)	X			<10	<0.0015					1	ug/L	lb/day			
5B. Benzo (a) Anthracene (56-55-3)	X			<10	<0.0015					1	ug/L	lb/day			
6B. Benzo (a) Pyrene (50-32-8)	X			<10	<0.0015					1	ug/L	lb/day			
7B. 3,4-Benzofluoranthene (205-99-2)	X			<10	<0.0015					1	ug/L	lb/day			
8B. Benzo (ghi) Perylene (191-24-2)	X			<10	<0.0015					1	ug/L	lb/day			
9B. Benzo (k) Fluoranthene (207-08-9)	X			<10	<0.0015					1	ug/L	lb/day			
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X			<10	<0.0015					1	ug/L	lb/day			
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X			<10	<0.0015					1	ug/L	lb/day			
12B. Bis (2-Chloroisopropyl) Ether (102-60-1)	X			<10	<0.0015					1	ug/L	lb/day			
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X			<10	<0.0015					1	ug/L	lb/day			
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			<10	<0.0015					1	ug/L	lb/day			
15B. Butyl Benzyl Phthalate (85-68-7)	X			<10	<0.0015					1	ug/L	lb/day			
16B. 2-Chloronaphthalene (91-58-7)	X			<10	<0.0015					1	ug/L	lb/day			
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X			<10	<0.0015					1	ug/L	lb/day			
18B. Chrysene (218-01-9)	X			<10	<0.0015					1	ug/L	lb/day			
19B. Dibenzo (a,h) Anthracene (53-70-3)	X			<10	<0.0015					1	ug/L	lb/day			
20B. 1,2-Dichlorobenzene (95-50-1)	X			<10	<0.0015					1	ug/L	lb/day			
21B. 1,3-Dichlorobenzene (541-73-1)	X			<10	<0.0015					1	ug/L	lb/day			

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. KNOWN OR BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<10	<0.0015					1	ug/L	lb/day			
23B. 3,3'-Dichlorobenzidine (91-94-1)	X			<20	<0.0030					1	ug/L	lb/day			
24B. Diethyl Phthalate (84-66-2)	X			<10	<0.0015					1	ug/L	lb/day			
25B. Dimethyl Phthalate (131-11-3)	X			<10	<0.0015					1	ug/L	lb/day			
26B. Di-N-Butyl Phthalate (84-74-2)	X			<10	<0.0015					1	ug/L	lb/day			
27B. 2,4-Dinitrotoluene (121-14-2)	X			<10	<0.0015					1	ug/L	lb/day			
28B. 2,6-Dinitrotoluene (606-20-2)	X			<10	<0.0015					1	ug/L	lb/day			
29B. Di-N-Octyl Phthalate (117-84-0)	X			<10	<0.0015					1	ug/L	lb/day			
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<20	<0.0030					1	ug/L	lb/day			
31B. Fluoranthene (206-44-0)	X			<10	<0.0015					1	ug/L	lb/day			
32B. Fluorene (86-73-7)	X			<10	<0.0015					1	ug/L	lb/day			
33B. Hexachlorobenzene (118-74-1)	X			<10	<0.0015					1	ug/L	lb/day			
34B. Hexachlorobutadiene (87-68-3)	X			<10	<0.0015					1	ug/L	lb/day			
35B. Hexachlorocyclopentadiene (77-47-4)	X			<10	<0.0015					1	ug/L	lb/day			
36B. Hexachloroethane (67-72-1)	X			<10	<0.0015					1	ug/L	lb/day			
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<10	<0.0015					1	ug/L	lb/day			
38B. Isophorone (78-59-1)	X			<10	<0.0015					1	ug/L	lb/day			
39B. Naphthalene (91-20-3)	X			<10	<0.0015					1	ug/L	lb/day			
40B. Nitrobenzene (98-95-3)	X			<10	<0.0015					1	ug/L	lb/day			
41B. N-Nitrosodimethylamine (62-75-9)	X			<10	<0.0015					1	ug/L	lb/day			
42B. N-Nitrosodi-n-Propylamine (621-64-7)	X			<10	<0.0015					1	ug/L	lb/day			

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. BELIEVED PRESENT	b. BELIEVED ABSENT	c. BELIEVED PRESENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)	X			<10	<0.0015					1	ug/L	lb/day			
44B. Phenanthrene (85-01-8)	X			<10	<0.0015					1	ug/L	lb/day			
45B. Pyrene (129-00-0)	X			<10	<0.0015					1	ug/L	lb/day			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<10	<0.0015					1	ug/L	lb/day			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

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OUTFALL NUMBER: 001(c)

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTED	b. REQUIRED	c. REQUIRED BUT NOT REQUIRED	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X	<0.2	<0.00003					1	ug/L	lb/day			
19P. PCB-1254 (11097-69-1)			X	<0.2	<0.00003					1	ug/L	lb/day			
20P. PCB-1221 (11104-28-2)			X	<0.2	<0.00003					1	ug/L	lb/day			
21P. PCB-1232 (11141-16-5)			X	<0.2	<0.00003					1	ug/L	lb/day			
22P. PCB-1248 (12672-29-6)			X	<0.2	<0.00003					1	ug/L	lb/day			
23P. PCB-1260 (11096-82-5)			X	<0.2	<0.00003					1	ug/L	lb/day			
24P. PCB-1016 (12674-11-2)			X	<0.2	<0.00003					1	ug/L	lb/day			
25P. Toxaphene (8001-35-2)			X												

LaSalle Station

Radwaste Treatment System

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

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V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 001(e)

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	2. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	2. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	2. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	2. EFFLUENT d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)	1.0*						1	mg/L				
e. Ammonia (as N)												
f. Flow	VALUE 0.0075 *		VALUE		VALUE 0.0050 **		1		MGD	VALUE		
g. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

	1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
**	a. Bromide (24959-67-9)		X												
**	b. Chlorine, Total Residual		X												
**	c. Color	X		5						1	Pt-Co				
**	d. Fecal Coliform		X												
**	e. Fluoride (16984-48-8)			<1	<0.042					1	mg/L	lb/day			
**	f. Nitrate-Nitrite (as N)	X		1.8	0.75					1	mg/L	lb/day			

EPA Form 3510-2C (Rev. 2-85)

PAGE V-1

* June, 1992 last discharge

** Data from previous permit application

CONTINUE ON REVERSE

ITEM V-B CONTINUED FROM FRONT

	1. POLLUTANT AND CAS NO. (if available)	2. MARK X a. BELIEVED PRESENT	2. MARK X b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
**	g. Nitrogen, Total Organic (as N)	X		0.3	0.012					1*	mg/l	lb/day			
	h. Oil and Grease	X		6.1*	0.381*					1*	mg/l	lb/day			
**	i. Phosphorus (as P), Total (7723-14-0)	X		0.32	0.013										
	j. Radioactivity														
**	(1) Alpha, Total	X		<3						1	pCi/L				
**	(2) Beta, Total	X		210±30						1	pCi/L				
**	(3) Radium, Total	X		9.0±3.2						1	pCi/L				
**	(4) Radium 226, Total	X		<0.3						1	pCi/L				
**	k. Sulfate (as SO_4) (14808-79-8)	X		8	0.334					1	mg/L	lb/day			
**	l. Sulfide (as S)		X												
**	m. Sulfite (as SO_3) (14265-45-3)		X												
**	n. Surfactants	X		<0.2	<0.008					1	mg/L	lb/day			
**	o. Aluminum, Total (7429-90-5)	X		<0.2	<0.008					1	mg/L	lb/day			
**	p. Barium, Total (7440-39-3)	X		<0.2	<0.008					1	mg/L	lb/day			
**	q. Boron, Total (7440-42-8)	X		<0.2	<0.008					1	mg/L	lb/day			
**	r. Cobalt, Total (7440-48-4)	X		<0.04	<0.0017					1	mg/L	lb/day			
**	s. Iron, Total (7439-89-6)	X		1.3	0.054					1	mg/l	lb/day			
**	t. Magnesium, Total (7439-95-4)	X		0.55	0.023					1	mg/L	lb/day			
**	u. Molybdenum, Total (7439-98-7)	X		<0.03	<0.0012					1	mg/L	lb/day			
**	v. Manganese, Total (7439-96-5)	X		0.03	0.0012					1	mg/L	lb/day			
**	w. Tin, Total (7440-31-5)	X		<1	<0.042					1	mg/L	lb/day			
**	x. Titanium, Total (7440-32-6)	X		<0.5	<0.021					1	mg/L	lb/day			

* Data from June, 1992 - last discharge

** Data from previous permit application (Oct. 197

LaSalle

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
ILD000803643	001(e)

CONTINUED FROM PAGE 3 OF FORM 2C

Form Approved
OMB No. 2000-0059
Approval expires 12-31-85

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2-b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

	1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
	METALS, CYANIDE, AND TOTAL PHENOLS															
**	1M. Antimony, Total (7440-36-0)	X			<0.5	<0.021					1	mg/L	lb/day			
**	2M. Arsenic, Total (7440-38-2)	X			<0.003	<0.0001					1	mg/L	lb/day			
**	3M. Beryllium, Total (7440-41-7)	X			<0.005	<0.0002					1	mg/L	lb/day			
**	4M. Cadmium, Total (7440-43-9)	X			0.012	0.0005					1	mg/L	lb/day			
**	5M. Chromium, Total (7440-47-3)	X			0.02	0.0008					1	mg/L	lb/day			
**	6M. Copper, Total (7440-50-8)	X			0.03	0.0012					1	mg/L	lb/day			
**	7M. Lead, Total (7439-92-1)	X			0.29	0.012					1	mg/L	lb/day			
**	8M. Mercury, Total (7439-97-6)	X			<0.0002	<0.000008					1	mg/L	lb/day			
**	9M. Nickel, Total (7440-02-0)	X			<0.03	<0.0012					1	mg/L	lb/day			
**	10M. Selenium, Total (7782-49-2)	X			<0.004	<0.0002					1	mg/L	lb/day			
**	11M. Silver, Total (7440-22-4)	X			<0.01	<0.0004					1	mg/L	lb/day			
**	12M. Thallium, Total (7440-28-0)	X			<0.03	<0.012					1	mg/L	lb/day			
**	13M. Zinc, Total (7440-66-6)	X			0.35	0.014					1	mg/L	lb/day			
**	14M. Cyanide, Total (57-12-5)	X			<0.005	<0.0002					1	mg/L	lb/day			
**	15M. Phenols, Total	X			<0.005	<0.0002					1	mg/L	lb/day			
	DIOXIN															
**	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

EPA Form 3510-2C (Rev. 2-85)

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** Data from previous permit application (Oct 1987 - Oct 1991)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

	1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
	GC/MS FRACTION - VOLATILE COMPOUNDS															
**	1V. Acrolein (107-02-8)	X			<100	<0.0042					1	ug/L	lb/day			
**	2V. Acrylonitrile (107-13-1)	X			<100	<0.0042					1	ug/L	lb/day			
**	3V. Benzene (71-43-2)	X			<5	<0.0002					1	ug/L	lb/day			
**	4V. Bis (Chloromethyl) Ether (542-88-1)			X												
**	5V. Bromoform (75-25-2)	X			<5	<0.0002					1	ug/L	lb/day			
**	6V. Carbon Tetrachloride (56-23-5)	X			<5	<0.0002					1	ug/L	lb/day			
**	7V. Chlorobenzene (108-90-7)	X			<5	<0.0002					1	ug/L	lb/day			
**	8V. Chlorodibromomethane (124-48-1)	X			<5	<0.0002					1	ug/L	lb/day			
**	9V. Chloroethane (75-00-3)	X			<10	<0.0004					1	ug/L	lb/day			
**	10V. 2-Chloroethylvinyl Ether (110-75-8)	X			<10	<0.0005					1	ug/L	lb/day			
**	11V. Chloroform (67-66-3)	X			<5	<0.0002					1	ug/L	lb/day			
**	12V. Dichlorobromomethane (75-27-4)	X			<5	<0.0002					1	ug/L	lb/day			
**	13V. Dichlorodifluoromethane (75-71-8)			X												
**	14V. 1,1-Dichloroethane (75-34-3)	X			<5	<0.0002					1	ug/L	lb/day			
**	15V. 1,2-Dichloroethane (107-06-2)	X			<5	<0.0002					1	ug/L	lb/day			
**	16V. 1,1-Dichloroethylene (75-35-4)	X			<5	<0.0002					1	ug/L	lb/day			
**	17V. 1,2-Dichloropropane (75-87-5)	X			<5	<0.0002					1	ug/L	lb/day			
**	18V. 1,3-Dichloropropylene (542-75-6)	X			<5	<0.0002					1	ug/L	lb/day			
**	19V. Ethylbenzene (100-41-4)	X			<5	<0.0002					1	ug/L	lb/day			
**	20V. Methyl Bromide (74-83-9)	X			<10	<0.0004					1	ug/L	lb/day			
**	21V. Methyl Chloride (74-87-3)	X			<10	<0.0004					1	ug/L	lb/day			

** Data from previous permit application

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803064 3

OUTFALL NUMBER: 001(e)

Form Approved
OMB No. 2040-0059
Approval expires 12-31-85

	1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
	GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
**	22V. Methylene Chloride (75-09-2)	X			<5	<0.0002					1	ug/L	lb/day			
**	33V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			<5	<0.0002					1	ug/L	lb/day			
**	24V. Tetrachloroethylene (127-18-4)	X			<5	<0.0002					1	ug/L	lb/day			
**	28V. Toluene (108-88-3)	X			<5	<0.0002					1	ug/L	lb/day			
**	29V. 1,2-Trans-Dichloroethylene (156-60-5)	X			<5	<0.0002					1	ug/L	lb/day			
**	27V. 1,1,1-Trichloroethane (71-55-6)	X			<5	<0.0002					1	ug/L	lb/day			
**	32V. 1,1,2-Trichloroethane (79-00-5)	X			<5	<0.0002					1	ug/L	lb/day			
**	26V. Trichloroethylene (79-01-6)	X			<5	<0.0002					1	ug/L	lb/day			
**	30V. Trichlorofluoromethane (75-69-4)	X			<5	<0.0002					1	ug/L	lb/day			
**	31V. Vinyl Chloride (75-01-4)	X			<10	<0.0004					1	ug/L	lb/day			
	GC/BS FRACTION – ACID COMPOUNDS															
**	1A. 2-Chlorophenol (95-57-8)	X			<10	<0.0004					1	ug/L	lb/day			
**	2A. 2,4-Dichlorophenol (120-83-2)	X			<10	<0.0004					1	ug/L	lb/day			
**	3A. 2,4-Dimethylphenol (105-67-9)	X			<50	<0.0021					1	ug/L	lb/day			
**	4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			<50	<0.0021					1	ug/L	lb/day			
**	5A. 2,4-Dinitrophenol (51-28-5)	X			<50	<0.0021					1	ug/L	lb/day			
**	6A. 2-Nitrophenol (88-75-5)	X			<10	<0.0004					1	ug/L	lb/day			
**	7A. 4-Nitrophenol (100-02-7)	X			<50	<0.0021					1	ug/L	lb/day			
**	8A. P-Chloro-M-Cresol (59-50-7)	X			<10	<0.0004					1	ug/L	lb/day			
**	9A. Pentachlorophenol (87-86-5)	X			<50	<0.0021					1	ug/L	lb/day			
**	10A. Phenol (108-95-2)	X			<10	<0.0004					1	ug/L	lb/day			
**	11A. 2,4,6-Trichlorophenol (88-06-2)	X			<10	<0.0004					1	ug/L	lb/day			

	1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X" a. TESTING REQUIRED BY APPLICANT	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
	GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
**	1B. Acenaphthene (83-32-9)	X			<10	<0.0004					1	ug/L	lb/day			
**	2B. Acenaphtylene (208-96-8)	X			<10	<0.0004					1	ug/L	lb/day			
**	3B. Anthracene (120-12-7)	X			<10	<0.0004					1	ug/L	lb/day			
**	4B. Benzidine (92-87-5)	X			<50	<0.0021					1	ug/L	lb/day			
**	5B. Benzo (a) Anthracene (56-55-3)	X			<10	<0.0004					1	ug/L	lb/day			
**	6B. Benzo (a) Pyrene (50-32-8)	X			<10	<0.0004					1	ug/L	lb/day			
**	7B. 3,4-Benzo-fluoranthene (205-99-2)	X			<10	<0.0004					1	ug/L	lb/day			
**	8B. Benzo (ghi) Perylene (191-24-2)	X			<10	<0.0004					1	ug/L	lb/day			
**	9B. Benzo (k) Fluoranthene (207-08-9)	X			<10	<0.0004					1	ug/L	lb/day			
**	10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X			<10	<0.0004					1	ug/L	lb/day			
**	11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X			<10	<0.0004					1	ug/L	lb/day			
**	12B. Bis (2-Chloro-isopropyl) Ether (102-80-1)	X			<10	<0.0004					1	ug/L	lb/day			
**	13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X			<10	<0.0004					1	ug/L	lb/day			
**	14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			<10	<0.0004					1	ug/L	lb/day			
**	15B. Butyl Benzyl Phthalate (85-68-7)	X			<10	<0.0004					1	ug/L	lb/day			
**	16B. 2-Chloro-naphthalene (91-58-7)	X			<10	<0.0004					1	ug/L	lb/day			
**	17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			<10	<0.0004					1	ug/L	lb/day			
**	18B. Chrysene (218-01-9)	X			<10	<0.0004					1	ug/L	lb/day			
**	19B. Dibenzo (a,h) Anthracene (53-70-3)	X			<10	<0.0004					1	ug/L	lb/day			
**	20B. 1,2-Dichloro-benzene (95-50-1)	X			<10	<0.0004					1	ug/L	lb/day			
**	21B. 1,3-Dichloro-benzene (541-73-1)	X			<10	<0.0004					1	ug/L	lb/day			

**Data from previous permit application (Oct.'87-Sept'88)

LaSalle

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643 | OUTFALL NUMBER: 001(e)

Form Approved
OMB No. 2000-0059
Approval expires 12-31-85

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST INCLUDED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
** 22B. 1,4-Dichlorobenzene (106-46-7)	X			<10	<0.0004					1	ug/L	lb/day			
** 23B. 3,3'-Dichlorobenzidine (91-94-1)	X			<20	<0.0008					1	ug/L	lb/day			
** 24B. Diethyl Phthalate (84-66-2)	X			<10	<0.0004					1	ug/L	lb/day			
** 25B. Dimethyl Phthalate (131-11-3)	X			<10	<0.0004					1	ug/L	lb/day			
** 26B. Di-N-Butyl Phthalate (84-74-2)	X			<10	<0.0004					1	ug/L	lb/day			
** 27B. 2,4-Dinitrotoluene (121-14-2)	X			<10	<0.0004					1	ug/L	lb/day			
** 28B. 2,6-Dinitrotoluene (606-20-2)	X			<10	<0.0004					1	ug/L	lb/day			
** 29B. Di-N-Octyl Phthalate (117-84-0)	X			<10	<0.0004					1	ug/L	lb/day			
** 30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<20	<0.0008					1	ug/L	lb/day			
** 31B. Fluoranthene (206-44-0)	X			<10	<0.0004					1	ug/L	lb/day			
** 32B. Fluorene (86-73-7)	X			<10	<0.0004					1	ug/L	lb/day			
** 33B. Hexachlorobenzene (118-74-1)	X			<10	<0.0004					1	ug/L	lb/day			
** 34B. Hexachlorobutadiene (87-68-3)	X			<10	<0.0004					1	ug/L	lb/day			
** 35B. Hexachlorocyclopentadiene (77-47-4)	X			<10	<0.0004					1	ug/L	lb/day			
** 36B. Hexachloroethane (67-72-1)	X			<10	<0.0004					1	ug/L	lb/day			
** 37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<10	<0.0004					1	ug/L	lb/day			
** 38B. Isophorone (78-59-1)	X			<10	<0.0004					1	ug/L	lb/day			
** 39B. Naphthalene (91-20-3)	X			<10	<0.0004					1	ug/L	lb/day			
** 40B. Nitrobenzene (98-95-3)	X			<10	<0.0004					1	ug/L	lb/day			
** 41B. N-Nitrosodimethylamine (62-75-9)	X			<10	<0.0004					1	ug/L	lb/day			
** 42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			<10	<0.0004					1	ug/L	lb/day			

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
** 43B. N-Nitrosodiphenylamine (86-30-6)	X									1	ug/L	lb/day			
** 44B. Phenanthrene (85-01-8)	X									1	ug/L	lb/day			
** 45B. Pyrene (129-00-0)	X									1	ug/L	lb/day			
** 46B. 1,2,4-Trichlorobenzene (120-82-1)															
GC/MS FRACTION – PESTICIDES															
** 1P. Aldrin (309-00-2)			X												
** 2P. α-BHC (319-84-6)			X												
** 3P. β-BHC (319-85-7)			X												
** 4P. γ-BHC (58-89-9)			X												
** 5P. δ-BHC (319-86-8)			X												
** 6P. Chlordane (57-74-9)			X												
** 7P. 4,4'-DDT (50-29-3)			X												
** 8P. 4,4'-DDE (72-55-9)			X												
** 9P. 4,4'-DDD (72-54-8)			X												
** 10P. Dieldrin (60-57-1)			X												
** 11P. α-Endosulfan (115-29-7)			X												
** 12P. β-Endosulfan (115-29-7)			X												
** 13P. Endosulfan Sulfate (1031-07-8)			X												
** 14P. Endrin (72-20-8)			X												
** 15P. Endrin Aldehyde (7421-93-4)			X												
** 16P. Heptachlor (76-44-8)			X												

CONTINUE ON PAGE V-9

**Data from previous permit application (Oct.'87-Sept'88)

CONTINUED FROM PAGE V 8

EPA I.D. NUMBER (copy from Item 1 of Form 1): ILD000803643

OUTFALL NUMBER: 001(e)

Form Approved
OMB No. 2040-0059
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED BY PERMIT	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

** Data from previous permit application (Oct.' - Sept.'88)

SI 720252

EES CORPORATION
12850 BOURNEWOOD DRIVE
SUGAR LAND, TEXAS 77478

SANUFIL
(Mixed Halogen Formulation)
Material Safety Data Sheet

1. GENERAL PRODUCT INFORMATION

PRODUCT NAME	SANURIL® 115
SYNONYMS	Calcium hypochlorite and 1-bromo-3-chloro-5,5-dimethylhydantoin
PRODUCT USE	Disinfecting agent for wastewater
NIOSH* RATINGS	3 HIGH HEALTH HAZARD
	0 NONCOMBUSTIBLE
	2 MODERATELY REACTIVE

*Ratings based upon "Identification System for Occupationally Hazardous Materials (1974)"

DEPARTMENT OF TRANSPORTATION INFORMATION

Proper Shipping Name	Calcium Hypochlorite Mixture, Dry RQ
Hazard Class	Oxidizer
UN/NA number	UN1748

MANUFACTURER INFORMATION:

Company Name	EES Corporation, A Subsidiary of ELTECH Systems Corporation
Street Address	12850 Bournewood Drive
City, State, Zip	Sugar Land, Texas 77478
Emergency Phone	1-800-424-9300
Office Phone	(713) 274-8444 or Toll Free 1-800-621-9189
Date Revised	4/15/90

2. HAZARDOUS INGREDIENTS

Chemical Name	% of Mixture	TLV	PEL	CAS#
Calcium Hypochlorite	69.30%	N/A	N/A	7778-54-3
1-bromo-3-chloro-5,5-dimethylhydantoin	0.94%	10	15	5795-65-AA
TLV/PEL OF MIXTURE (if known)	N/A			

3. PHYSICAL PROPERTIES

BOILING POINT	None; dry solid
MELTING POINT	N/A
SPECIFIC GRAVITY	1.8 min (tablet)
VAPOR DENSITY	N/A
VAPOR PRESSURE	N/A
PERCENT VOLATILES	N/A
SOLUBILITY IN WATER	6% by weight (min)
pH	8.3 (1% solution)
DENSITY (@ 20°C)	1.0
COLOR	White solid tablet
ODOR	Slight chlorine. N-bromo compounds have a stench-like odor. It is not as "irritant" as chlorine.

4. FIRE AND EXPLOSION DATA

FLASHPOINT	N/A
AUTO IGNITE TEMP	N/A
FLAMMABILITY LIMITS IN AIR	N/A
EXPLOSIVE LIMIT	LOWER: N/A
	UPPER: N/A
EXTINGUISHING MEDIA	Water ONLY

SPECIAL FIRE FIGHTING PROCEDURES:

This product is a strong oxidizer. Use ONLY water in the event of a fire or a violent reaction may result by contamination. Wear self-contained breathing apparatus.

REPRESENTED BY
The BRENCO Corporation
1470 So. Vandeventer • St. Louis, Missouri 63110 U.S.A.
Telephone: 314/621-0644
FAX (314) 621-6674

BRENCO

4. FIRE AND EXPLOSION DATA (Continued)

UNUSUAL FIRE/EXPLOSION HAZARD:

Contamination with organics, acids, alkalies, and strong reducing agents will result in fire or rapid decomposition. Spontaneous decomposition temperature for this product is 350°F. In large fires fueled by other materials the product may smolder for prolonged periods emitting dense black smoke.

5. HEALTH HAZARD INFORMATION

THIS SECTION DESCRIBES THE NATURE OF THE HAZARDOUS EFFECT RESULTING FROM EXPOSURE TO THIS PRODUCT.

ROUTES OF EXPOSURE:

INGESTION:

Highly toxic by ingestion. May cause severe inflammation and erosion to the lining of the esophogus and stomach. Promptly induces vomiting.

EYE CONTACT:

Mild to moderate exposure to dust causes irritation of the eyes. Severe exposure can cause permanent (irreversible) damage.

SKIN CONTACT:

Mild to moderate exposure to dust may irritate the skin. Greater exposure can cause severe irritation.

INHALATION:

Mild to moderate exposure to dust causes irritation to the mucous membranes of the respiratory passages (nasal and throat).

SENSITIZING AGENT? ..... NO
ABSORBED THROUGH THE SKIN? ..... NO
SYSTEMIC POISON? ..... NO

EFFECTS OF OVEREXPOSURE:

ACUTE:

Ingestion may result in erosion of the esophogus and stomach. Vomiting, gastric bleeding and possible circulatory collapse. Exposure may cause temporary or permanent tissue damage to skin, eyes, and respiratory passages.

CHRONIC:

Prolonged and intensive exposure may result in tissue damage to body surfaces unless promptly treated.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of entire eye surface. SEEK MEDICAL ATTENTION!

Skin: Wash with plenty of soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse. Footwear should be decontaminated before reuse. Seek medical attention if symptoms persist.

Inhalation: Get person out of contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. SEEK MEDICAL ATTENTION!

Ingestion: NEVER give anything by mouth to an unconscious person. Feed bread soaked in milk, followed by olive or cooking oil. DO NOT induce vomiting. Call a physician immediately!

EES CORPORATION
SANUREL 115
MATERIAL SAFETY DATA SHEET
PAGE 3

6. REACTIVITY DATA

Conditions contributing to instability:

Contamination with flammables, organics may cause fire or explosion. Acids will release chlorine and bromine gas.

Incompatibility (Materials to avoid):

Acids, flammables, organic materials, readily oxidizable materials and strong reducing agents.

Hazardous decomposition or byproducts:

Chlorine gas, hydrogen bromide, bromine and hydrogen chloride.

Hazardous polymerization:

This product is not known to polymerize.

7. SPILL OR LEAK PROCEDURES

Neutralizing Chemicals:

Sodium sulfite, sodium bisulfite or sodium metabisulfite.

Steps to be Taken if Material is Released and/or Spilled:

Wear appropriate protective gear: rubber gloves and boots. Chemical splash goggles and breathing apparatus if necessary. Avoid contact with clothing--fire may result.

Dilute spill area with large quantities of water, at least 100 gallons of water per pound of material. Avoid contact with resulting solution. Neutralize with sodium sulfite, sodium bisulfite or sodium metabisulfite. Collected neutralized solution should be disposed of through sewage treatment plant. Prior approval from plant personnel as well as Local, State and Federal environmental agencies should be obtained. File environmental spill notifications if necessary.

Waste Disposal Methods:

DO NOT dispose of material in dry form in waste container--fire may result. Proceed with spill procedure as outlined above.

Additional Precautions:

Do not attempt to recover solid material. Do not dispose of material in waste container. Do not reuse empty container but place in trash collection.

8. [illegible]

Ventilation Requirements:

Work in well ventilated areas. Storage area should be well ventilated.

Specific Personal Protective Equipment:

Respiratory protection is not required under normal use, however when necessary, use NIOSH/MSHA approved respirator following manufacturer's recommendations. NIOSH approved dust mask is essential where dusting may occur.

Eye Protection: Chemical safety glasses should be worn.

Protective Gloves: Gloves should be worn. Rubber or other chemically resistant materials are recommended as suitable material.

Other Clothing and Equipment:

Protective clothing should be worn so as to minimize skin contact. Avoid contact with clothing. Fire may result from contact of dry material with cloth or flammables.

EES CORPORATION
SANURIL 115
MATERIAL SAFETY DATA SHEET
PAGE 4

9. SPECIAL PRECAUTIONS

DANGER: highly corrosive. Causes skin and eye damage. May be fatal if swallowed. DO NOT get in eyes or on clothing. Wear goggles and CLEAN protective gloves when handling. Irritating to nose and throat. DO NOT breathe dust and fumes. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

This product is toxic to fish. Do not discharge into lakes, streams, ponds or public waters unless in accordance with an NPDES permit.

Strong oxidizing agent. Mix this product only with water. Use clean dry utensils. Open container only where adequate ventilation is available. Do not add this product to any dispensing device containing remains of any other product. In case of contamination/decomposition, do not reseal container. If possible, isolate container in open air and flood with large volumes of water.

10. STORAGE AND DISPOSAL

STORAGE:
Keep product dry and in a tightly closed container when not in use. Store in cool, dry, well ventilated area, keeping it away from heat sources and/or open flames. Handle container with care--DO NOT drop, roll or skid. In case of decomposition, isolate container (if possible) and flood with large amounts of water to dissolve all material. Follow "Spill and Leak Procedures" as outlined in Section 7 of this Data Sheet.

Keep in original container. DO NOT store/transfer/repack this product in any other container without the approval/authorization of EES Corporation.

DISPOSAL:
Follow "Spill and Leak Procedures" as outlined in Section 7 of this Data Sheet. DO NOT reuse empty container. Wash thoroughly with water and discard clean container in a safe place.

DO NOT CONTAMINATE FOOD OR FEED BY STORAGE, DISPOSAL OR CLEANING OF EQUIPMENT.

All information on this form is furnished solely for the purpose of compliance with OSHA's Hazard Communication Standard, 29CFR 1910.1200 and shall not be used for any other purpose.

042690/dd

SI 720251

MATERIAL SAFETY DATA SHEET

BASF Corporation Chemicals Division
100 Cherry Hill Road, Parsippany, New Jersey 07054, (201) 316-3000

BASF

PRODUCT NUMBER: 491392 Sodium Nitrite, RW

SECTION I — Manufacturer/Trademark

TRADE NAME: Sodium Nitrite, RW

CHEMICAL NAME: Sodium Nitrite

SYNONYMS: None

FORMULA: $NaNO_2$

CHEMICAL FAMILY: Inorganics

MOL. WGT.: 69.01

SECTION II — HAZARDOUS INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Sodium Nitrite, RW	7632-00-0	88 min.	2 mg/m3 BASF Corp. rec.

All components are in TSCA inventory.

SARA Title III Sect. 313: Not listed.

SECTION III — PHYSICAL DATA

BOILING/MELTING POINT @760 mm Hg: N/A / 280 C	pH: ~8.0 (Aq. sol.)
VAPOR PRESSURE mm Hg @20 C: N/A	Decomp. temp.: 320 C
SPECIFIC GRAVITY OR BULK DENSITY: 2.17	OR 1100-1300kg/ m³
SOLUBILITY IN WATER: Soluble @ 20C 81%g/C	
APPEARANCE: Yellow Crystals	ODOR: None INTENSITY:

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): N/A AUTOIGNITION TEMP: N/A

FLAMMABILITY LIMITS IN AIR (% BY VOL) LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIUM	Use water fog extinguishing medium. Spray water when fire is still small. If large amounts are involved, nitrite may
SPECIAL FIREFIGHTING PROCEDURES	fuse or melt, in which condition, water may cause extensive scattering of molten metal. Firefighters must be equipped with self-contained breathing apparatus and turnout gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS	A strong oxidizing agent in contact with organic matter. Will ignite by friction or heat.

SECTION V — EMERGENCY TELEPHONE NUMBERS

CHEMTREC 800-424-9300 201-316-3000

THIS NUMBER IS AVAILABLE DAYS, NIGHTS, WEEKENDS, AND HOLIDAYS

PRODUCT NUMBER: 491392 Sodium Nitrite, RW

SECTION V - TOXICOLOGICAL DATA

TOXICOLOGICAL TEST DATA:

	RESULT:
Sodium Nitrite, RW	
Rat, Oral LDL50	85 mg/kg. (very toxic)
Human, Oral LDL0	3 mg/kg.

EFFECTS OF OVEREXPOSURE:

Routes of exposure to this material include eye and skin contact or inhalation.
Sodium Nitrite and aqueous solutions of sodium nitrite may be severely irritating to the eyes. The powder may also act as a mechanical irritant of the skin and respiratory tract. Ingestion of large amounts of this material may cause nausea, vomiting, cyanosis (as a result of methemoglobin production), convulsions and coma. Chronic exposure to nitrites may cause headaches, visual problems and decreased blood pressure. Nitrites may react with secondary and tertiary amines to form nitrosamines, which are animal carcinogens. Sodium nitrite was not carcinogenic when fed to rats in the diet at 0.2 or 0.5% for up to 118 weeks.

Existing medical conditions aggravated by exposure to this material:
No information found for this mixture.

FIRST AID PROCEDURES:

Eyes-Immediately wash eyes with running water for 15 minutes. Get immediate medical attention.
Skin-wash affected areas with water. Remove and launder contaminated clothing before reuse. If irritation develops consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsion. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

SECTION VI - REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid strong oxidizers. In contact with readily oxidized materials, a fire or explosion may occur.

CHEMICAL INCOMPATIBILITY: Reducing materials, cyanides, organic matter, ##

HAZARDOUS DECOMPOSITION PRODUCTS: NOx, fumes, ## sulfites, metabisulfites.

HAZARDOUS POLYMERIZATION: Does not occur

CONDITIONS TO AVOID: Resistance to corrosion may be reduced by presence of chlorides and sulfates.

CORROSIVE TO METAL: No

OXIDIZER: Yes

SECTION VII - SPECIAL PROTECTION

RESPIRATORY PROTECTION:
Dust mask, if conditions warrant.
If the recommended P.E.L. is exceeded, wear an approved dust respirator.

EYE PROTECTION: Side-shield safety glasses or chemical goggles.

PROTECTIVE CLOTHING: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

VENTILATION: Use local exhaust to control dusts.

OTHER: N/A

PRODUCT NUMBER: 491392 Sodium Nitrite, RW

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA:

None available.

SPILL AND LEAK PROCEDURES:

Spills should be contained and placed in suitable containers for disposal in a RCRA licensed facility. This material is RCRA hazardous due to its properties.

HAZARDOUS SUBSTANCE SUPERFUND: Yes RQ (lbs): 100

WASTE DISPOSAL METHOD:

Incinerate or bury as a solid only in a RCRA licensed facility. Do not discharge into waterways or sewer systems without proper authority.

HAZARDOUS WASTE 40CFR261: Yes HAZARDOUS WASTE NUMBER: D 001

CONTAINER DISPOSAL:

Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing or other means to prevent unauthorized reuse. Other containers must be disposed of in a RCRA licensed facility.

SECTION IX - SHIPPING DATA

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102)

Sodium Nitrite

HAZARDOUS SUBSTANCE (49CFR CERCLA LIST)

Yes--Sodium Nitrite

REPORTABLE QUANTITY (RQ) 100

D.O.T. HAZARD CLASSIFICATION (CFR172.101-102)

PRIMARY

Oxidizer

SECONDARY

D.O.T. LABELS REQUIRED (49CFR172.101-102)

Oxidizer

D.O.T. PLACARDS REQUIRED (CFR172.504)

Oxidizer

(1500)

POISON CONSTITUENT (49CFR172.203(K))

BILL OF LADING DESCRIPTION

Sodium Nitrite--Oxidizer--UN 1500 RQ

CC NO. 189

UN/NA CODE 1500

DATE PREPARED: 2 / 13 / 88

UPDATED: 5 / 18 / 90

PRODUCT NUMBER: 491392 Sodium Nitrite, RW

SECTION X -- PRODUCT LABEL

Sodium Nitrite, RW

DANGER: OXIDIZER. HARMFUL OR FATAL IF SWALLOWED.
FIRE AND/OR EXPLOSION MAY OCCUR IF PRODUCT COMES IN CONTACT WITH READILY OXIDIZED MATERIALS.
CONTACT WITH SODIUM NITRITE AND ITS SOLUTIONS MAY RESULT IN SEVERE IRRITATION OF EYES. CONTACT MAY IRRITATE THE SKIN AND RESPIRATORY TRACT.
INGESTION MAY RESULT IN NAUSEA, VOMITING, CYANOSIS, CONVULSIONS AND COMA.
CHRONIC EXPOSURE TO NITRITES MAY CAUSE HEADACHES, VISUAL PROBLEMS AND DECREASED BLOOD PRESSURE. NITRITES MAY REACT WITH SECONDARY AND TERTIARY AMINES TO FORM NITROSAMINES, WHICH ARE ANIMAL CARCINOGENS.
(NOTE: PREGNANT WOMEN MAY BE ESPECIALLY SENSITIVE TO NITRITE-GENERATED METHEMOGLOBINEMIA.)

Avoid contact with eyes, skin or clothing. Avoid breathing dusts. Use with local exhaust. Wear a NIOSH/MSHA-approved dust respirator, chemical goggles, gloves, coveralls, apron, boots and other protective clothing as necessary to prevent contact.

FIRST AID:
Eyes-Immediately wash eyes with running water for 15 minutes. Get immediate medical attention.
Skin-Wash affected areas with water. Remove and launder contaminated clothing before reuse. If irritation develops consult a physician.
Ingestion-If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.
Inhalation-Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

IN CASE OF SPILLS OR LEAKS: Material is a RCRA-regulated product. Spills should be contained, absorbed and placed in suitable containers for disposal in a RCRA-licensed facility.

IN CASE OF FIRE: Use water fog. Application of water may cause extensive scattering of molten material when large quantities are involved in fires. Product will explode when heated to 538 C or upon contact with cyanides. Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

EMPTY CONTAINERS: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse this container unless it is professionally cleaned and reconditioned.

DISPOSAL: Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations. Refer to our Material Safety Data Sheet for specific disposal instructions.

IN CASE OF CHEMICAL EMERGENCY: Call CHEMTREC day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. 800-424-9300

ATTENTION: This product is sold solely for use by industrial institutions.

Refer to our Technical Bulletin and Material Safety Data Sheet regarding safety, usage, applications, hazards, procedures and disposal of this product. Consult your supervisor for additional information.

NJ/PA/MA/CA, RTK Review: 7632-00-0, Sodium Nitrite

Made in West Germany
Proper Shipping Name: Sodium Nitrite--UN 1500 80
Intermediate Chemicals
0890

TP105 6 81

RECEIVED
1/4/94

MATERIAL SAFETY DATA SHEET

NALCO

PRODUCT

NALCO 9269 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCO 9269 LIQUID
DESCRIPTION: An aqueous solution of a polyacrylate

NFPA 704M/HMIS RATING: 1/1 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant, 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation of the ingredient(s) under OSHA's Hazard Communication Rule, 29 CFR 1910.1200 has found none of the ingredient(s) hazardous.

SECTION 3 PRECAUTIONARY LABEL INFORMATION

CAUTION: May cause irritation to skin and eyes. Avoid contact with skin, eyes and clothing. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

SECTION 4 FIRST AID INFORMATION

EYES: Flush with water for 15 minutes. Call a physician.
SKIN: Flush with water for 15 minutes.
INGESTION: Do not induce vomiting. Give water. Call a physician.
INHALATION: Remove to fresh air. Treat symptoms. Call a physician.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin

EYE CONTACT: May cause irritation with prolonged contact.
SKIN CONTACT: May cause irritation with prolonged contact.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE, ILLINOIS 60563-1198
AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9249 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS): LD_{50} = Greater than 5,000 mg/kg

ACUTE DERMAL TOXICITY (ALBINO RABBITS): LD_{50} = Greater than 2,000 mg/kg

PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):
SKIN IRRITATION INDEX DRAIZE RATING: 0.0/8.0 Non-irritating

PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):
EYE IRRITATION INDEX DRAIZE RATING: 2.7/110.0 Minimally irritating

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Clear water-white	FORM: Liquid	ODOR: Organic
DENSITY:	10.2 lbs/gal.	
SOLUBILITY IN WATER:	Completely	
SPECIFIC GRAVITY:	.21 - 1.23 @ 60 Degrees F	
pH (NEAT) =	3.6 - 4.0	ASTM D-1298
VISCOSITY:	51 cps @ 60 Degrees F	ASTM E-70
FREEZE POINT:	20 Degrees F	ASTM D-2983
FLASH POINT:	None (PMCC)	ASTM D-1177
		ASTM D-93

NOTE: These physical properties are typical values for this product.

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: None (PMCC) ASTM D-93

EXTINGUISHING MEDIA: This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use water to cool containers exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve NOx under fire conditions. Containers exposed in a fire should be cooled with water to prevent vapor pressure buildup leading to a rupture.

SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong oxidizers (eg. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.
THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO_2, NOx may

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AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9249 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 9 REACTIVITY INFORMATION (CONTINUED)

be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Respiratory protection is not normally needed since the volatility and toxicity are low. If significant vapors, mists or aerosols are generated, wear a NIOSH approved or equivalent respirator.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

VENTILATION: General ventilation is recommended.

PROTECTIVE EQUIPMENT: Use impermeable gloves and chemical splash goggles when attaching feeding equipment or doing maintenance.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

SPILL CONTROL AND RECOVERY:

Small liquid spills: Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

Large liquid spills: Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

DISPOSAL: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE, ILLINOIS 60563-1198
AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9249 LIQUID

Emergency Telephone Number

Medical (708) 820-1510 (24 hours)

SECTION 11 SPILL AND DISPOSAL INFORMATION (CONTINUED)

before disposal to an industrial waste landfill. A non-hazardous liquid waste can also be incinerated in accordance with local, state and federal regulations.

SECTION 12 ENVIRONMENTAL INFORMATION

AQUATIC DATA:

96 hour static acute LC_{50} to Bluegill Sunfish = Greater than 1,000 ppm

96 hour no observed effect concentration is 1,000 ppm based on no mortality or abnormal effects.

96 hour static acute LC_{50} to Rainbow Trout = Greater than 1,000 ppm

96 hour no observed effect concentration is 1,000 ppm based on no mortality or abnormal effects.

48 hour static acute LC_{50} to Daphnia Magna = Greater than 1,000 ppm

48 hour no observed effect concentration is 560 ppm based on no mortality or abnormal effects.

TOXICITY RATING: Essentially non-toxic

96 hour static acute LC_{50} to Mysid Shrimp = 464 mg/L

TOXICITY RATING: Slightly toxic

96 hour static acute LC_{50} to Silversides (Menidia beryllina) = Greater than 1,000 mg/L

TOXICITY RATING: Essentially non-toxic

If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - PRODUCT IS NOT REGULATED DURING TRANSPORTATION

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE, ILLINOIS 60563-1198
AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9269 LIQUID

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:
Based on our hazard evaluation, none of the ingredients in this product are hazardous.

CERCLA, 40 CFR 117, 302:
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):
This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):
The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):
None of the ingredients are specifically listed.

Clean Air Act, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments):
This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:

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AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9249 LIQUID

Emergency Telephone Number

Medical (708) 820-1510 (24 hours)

SECTION 14 REGULATORY INFORMATION

(CONTINUED)

This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:
This product does not contain ingredients listed on the Michigan Critical Materials Register.

STATE RIGHT TO KNOW LAWS:
The following ingredient(s) are disclosed for compliance with State Right To Know Laws:

Acrylate polymer	Trade secret
Inorganic salts	Trade secrets
Water	7732-18-5

INTERNATIONAL REGULATIONS:

This is not a WHMIS controlled product under The House of Commons of Canada Bill C-70.

SECTION 15 ADDITIONAL INFORMATION

None

SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 17 BIBLIOGRAPHY

ANNUAL REPORT ON CARCINOGENS, U.S. Department of Health and Human Services, Public Health Service, PB 33-135855, 1983.

CASARETT AND DOULL'S TOXICOLOGY, THE BASIC SCIENCE OF POISONS, Doull, J., Klaassen, C. D., and Admur, M. O., eds., Macmillian Publishing Company, Inc., N. Y., 2nd edition, 1980.

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE ILLINOIS 60563-1198
AREA 708-305-1000

NALCO

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 9249 LIQUID

Emergency Telephone Number

Medical (708) 980-1510 (24 hours)

SECTION 17 BIBLIOGRAPHY

(CONTINUED)

CHEMICAL HAZARDS OF THE WORKPLACE, Proctor, N. H., and Hughes, J. P., eds., J. P. Lipincott Company, N.Y., 1981.

DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, Sax, N. Irving, ed., Van Nostrand Reinhold Company, N.Y., 6th edition, 1984.

IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO MAN, Geneva: World Health Organization, International Agency for Research on Cancer, 1972-1977.

PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY, Clayton, G. D., Clayton, F. E., eds., John Wiley and Sons, N. Y., 3rd edition, Vol. 2 A-C, 1981.

REGISTRY OF TOXIC EFFECTS ON CHEMICAL SUBSTANCES, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health 1983 supplement of 1981-1982 edition, Vol. 1-3, OH, 1984.

Title 29 Code of Federal Regulations Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, OH.

PREPARED BY: Ricky A. Stackhouse PhD., Toxicologist
DATE CHANGED: 07/22/92 DATE PRINTED: 11/14/92

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE ILLINOIS 60563-1198
AREA 708-305-1000

SI 525433

Olin MATERIAL SAFETY DATA

Olin N° Network
EMERGENCY PHONE 1-800-OLIN-911

SECTION I - IDENTIFICATION

MSDS FILE 660

CHEMICAL NAME & SYNONYMS Sodium hydr[redacted]		
CHEMICAL FAMILY Alkali	FORMULA NaOH	PRODUCT Caustic Soda 50% Rayon Grade
DESCRIPTION Clear colorless solution		CAS NO. 1310-73-2

SECTION II - NORMAL HANDLING PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

May be fatal if swallowed. Avoid contact with eyes, skin or clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist. Store in a well-ventilated place. Separate from acids, metals and explosives. When diluting the solution, always add it to the water. Adding water to the solution may cause splattering and excessive heat and may cause boiling. Have safety shower and eyewash available.

PROTECTIVE EQUIPMENT		VENTILATION REQUIREMENTS
EYES	Chemical goggles	Mechanical (General)	As required to keep airborne concentrations below TLV.
GLOVES	Neoprene or PVC		
OTHER	Coveralls and boots		

SECTION III - HAZARDOUS INGREDIENTS

BASIC MATERIAL	OSHA PEL	LD50	LC50	SIGNIFICANT EFFECTS
Sodium hydroxide	2 mg/m3	No data	No data	Corrosive to all tissues contacted.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method)	OSHA CLASSIFICATION Not regulated (Non-ignitable)	FLAMMABLE EXPLOSIVE LIMIT	LOWER	UPPER
			N.D.	N.D.

EXTINGUISHING MEDIA Non-combustible, but may ignite combustible materials or organic matter on contact. Fight fire with water. Cool exposed containers.

SPECIAL FIRE HAZARD & FIRE FIGHTING PROCEDURES Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus where this material is involved in a fire.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Sodium hydroxide - 2 mg/m3 (Ceiling) (1986-87)

SYMPTOMS OF OVEREXPOSURE
Corrosive to all tissues contacted

EMERGENCY FIRST-AID PROCEDURES

SKIN Flush with water for 15 minutes, call a physician

EYES Immediately flush with water for 15 minutes with eyes held open. Call a physician

INGESTION Drink large quantities of water. Do [redacted]. Call a physician.

INHALATION Move victim to fresh air. Call a physician

PRODUCT CODE 19 CHEMICAL NAME Caustic Soda 50% Rayon Grade

SECTION VI - TOXICOLOGY (PRODUCT)

ACUTE ORAL LD 50 NO DATA
May be fatal if swallowed
ACUTE DERMAL LD 50
No data
ACUTE INHALATION LC
No data

CARCINOGENICITY Not known to be carcinogenic
MUTAGENICITY Not known to be mutagenic
EYE IRRITATION Corrosive
PRIMARY SKIN IRRITATION
Corrosive

PRINCIPAL ROUTES OF EXPOSURE
Inhalation, dermal

EFFECTS OF ACUTE EXPOSURE
Burns to exposed tissue frequently resulting in deep ulceration

EFFECTS OF CHRONIC EXPOSURE
None except those due to tissue damage

SECTION VII SPILL AND LEAKAGE PROCEDURES (CONTROL PROCEDURES)

ACTION FOR MATERIAL RELEASE OR SPILL
CAUTION SOLUTION IS SLIPPERY AND CORROSIVE. Wear NIOSH/MSHA approved dust/mist respirator. Follow OSHA regulations for respirator use (see 29 CFR 1910.134). Wear goggles, coveralls and neoprene, polyvinyl chloride gloves and boots. Add non-reactive dry absorbent such as diatomaceous earth or sweep up and place in an approved DOT container and seal. Neutralize residue with dilute acid such as acetic (vinegar) and flush with water. Do not wash unabsorbed spill to sewers or waterways. Wash all contaminated clothing before reuse. In the event of a large spill call the emergency telephone number shown on the front of this sheet

TRANSPORTATION EMERGENCY, CONTACT CHEMTREC 800-424-9300

WASTE DISPOSAL METHOD
Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate Federal, State and local regulatory agencies to ascertain proper disposal procedures

SECTION VIII - SHIPPING DATA

D.O.T. Caustic Liquid Corrosive Material UN 1824

SECTION IX - REACTIVITY DATA

STABLE UNSTABLE AT ____C ____F

HAZARDOUS POLYMERIZATION	MAY OCCUR	WILL NOT OCCUR
		X

CONDITIONS TO AVOID
None known
INCOMPATIBILITY (MATERIALS TO AVOID) Acids, many nitro-compounds, chlorinated hydrocarbons, peroxides, aluminum
HAZARDOUS DECOMPOSITION PRODUCTS Contact with carbohydrates may release carbon monoxide. Contact with certain metals release flammable hydrogen gas.

SECTION X - PHYSICAL DATA

MELTING POINT 55°F (13°C)
BOILING POINT 295°F (146°C)
SPECIFIC GRAVITY (H2O = 1) @ 68°F (20°C) See below
VAPOR PRESSURE See below
SOLUBILITY IN WATER Soluble
PH > 12
8 mm Hg @ 150°F
VOLATILES N.A.
EVAPORATION RATE N.A.
VAPOR DENSITY (AIR=1) N.A.

INFORMATION: FURNISHED TO 00145002 FURNISHED BY DATE MAY 15, 1987

ATTN: DEPT HEAD MATL SAFETY DATA SHEETS
POWELL DUFFRYN
OLIN CORP
LASALLE STATION
LEMONT 39

Department of Environmental Hygiene and Toxicology
(203) 789-8436

Olin CORPORATION
120 Long Ridge Road, Stamford, Connecticut 06904
OCEAN® Network
EMERGENCY PHONE 1-800-OLIN-911

Murphy Chemical Inspection Co.
P. O. BOX 43, LEMONT, ILLINOIS 60439-0043 • (708) 257-6775

TO Olin Corporation
120 Long Ridge Road
P. O. Box 1355
Stamford, CT. 06904-1355

SAMPLE SUBMITTED BY Murphy Chemical Inspection Co.
UNLESS OTHERWISE NOTED BELOW

REPORT OF LABORATORY ANALYSIS

DATE: May 21, 1992

REGARDING: Ex-Barge OMCC 11

Caustic Soda

The Powell Duffryn Terminal in Lemont, IL.

	Barge Composite Before Discharge	Shore Tank 219 After Discharge
NA2O	38.97%	39.08%
NAOH	50.23%	50.38%
NA_2CO_3	.0356%	.0394%
NACL	.0020%	.0016%
Iron Content	0.73 PPM	0.78 PPM
Arsenic Content		<1 PPM
Lead Content		2.12 PPM
Mercury Content		0.016 PPM
Heavy Metals		<30 PPM
Lbs/Gal @ 60°F:		12.7871

FORM MCI 4

By

SI 112 .25

Material Safety Data Sheet

Emergency Phone
708-438-1800

Section 1 Product Identification

TRADE NAME
AQUAFLOC 408

DOT SHIPPING NAME
Compound Industrial Process Water Treating, Liquid

PRODUCT TYPE
Waste Water Treatment

CODE IDENT
25-408

Section 2 Hazardous Ingredients

	CAS NUMBER	%	EXPOSURE CRITERIA
Does not contain hazardous constituents under 29CFR 1910.1200 d(3)&(4).			

HMIS 1-0-0

Section 3 Physical Data

EPA REGISTRATION NO. NA

BOILING POINT, 760 mm Hg	212 F	MELTING POINT	NA
FREEZING POINT	32 F	VAPOR PRESSURE	23 mm Hg
SPECIFIC GRAVITY (H2O = 1)	1.01	SOLUBILITY IN H2O	Complete
VAPOR DENSITY (AIR = 1)	ND	EVAPORATION RATE (Bu Ac = 1)	1
% VOLATILES BY VOLUME	ND	pH	3.7 - 4.7
APPEARANCE & ODOR			

Clear liquid with no specific odor

Section 4 Fire & Explosion Hazard Data

FLASH POINT (& METHOD USED)
NA, water-based product

FLAMMABLE LIMITS IN AIR % BY VOLUME
LOWER: NA
UPPER: NA

AUTO IGNITION TEMPERATURE
NA

EXTINGUISHING MEDIA:
FOAM CO2 DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES:
Firefighters should wear full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARD:
none known

Section 5 Reactivity Data

STABILITY (NORMAL CONDITIONS)
Stable

CONDITIONS TO AVOID
Not determined

INCOMPATIBILITY (MATERIALS TO AVOID)
Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS
not determined

HAZARDOUS POLYMERIZATION
Will Not Occur

CONDITIONS TO AVOID
Not applicable

GRACE Dearborn
Dearborn Division W. R. Grace & Co. - Conn., 300 Genesee Street, Lake Zurich, IL 60047 (708) 438-1800

Section 6 Health Hazard Information

TOXICITY INFORMATION:

See Section 2

EFFECTS OF OVEREXPOSURE:

INHALATION: Inhalation of vapors or mist may irritate nasal passages.

INGESTION: Harmful if swallowed

SKIN OR EYE CONTACT: Prolonged or frequent skin contact may cause irritation.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove affected persons to fresh air and treat symptoms.

INGESTION: If ingested administer emetic or drink large amounts of milk or water to neutralize and contact physician.

SKIN CONTACT: Wash with soap and water.

EYE CONTACT: Flush eyes with water and seek medical attention.

Section 7 Special Protection Information

VENTILATION REQUIREMENTS
Mechanical ventilation should be adequate

RESPIRATORY PROTECTION (SPECIFY TYPE)
None special

EYE PROTECTION
Goggles or face shield

GLOVES
Rubber or plastic

OTHER PROTECTIVE CLOTHING AND EQUIPMENT
Long sleeve shirt and pants to minimize skin contact.

Section 8 Spill or Leak Procedures

STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED

Wear protective clothing. Small spills may be flushed to the drain. Large spills should be soaked up on an inert absorbent and placed in a container for disposal. Flush area of spill with water.

WASTE DISPOSAL METHOD

Dispose of absorbed material in accordance with applicable federal, state and local regulations. May be burned or landfilled.

This product is not an EPA hazardous waste.

Section 9 Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Protect from freezing. Store drums closed when not in use.

OTHER PRECAUTIONS

For industrial use only. Keep out of reach of children.

PREPARED BY S. Morss DATE: 8/03/88

GRACE Dearborn
Dearborn Division W. R. Grace & Co. - Conn., 300 Genesee Street, Lake Zurich, IL 60047 (708) 438-1800

PRODUCT BULLETIN 42.488

28214

DEARBORN CHEMICAL COMPANY

Subsidiary of W.R. GRACE & CO.

waste and process water treatment

AQUAFLOC® 408

Industrial and Municipal Waste Treatment

AQUAFLOC® 408 is a liquid anionic flocculant and coagulant aid. AQUAFLOC 408 will increase the efficiency of clarifiers, filters, thickeners, separators and softeners. AQUAFLOC 408 may be safely used in the clarification of raw water intended for potable use. AQUAFLOC 408 promotes the formation of a faster settling floc which means a reduction in floc carryover and increased filter runs.

ADVANTAGES:

- Convenient liquid form of a high molecular weight polymer
- Promotes faster settling floc
- Safe—EPA approval for use in potable water
- Increases efficiency of treatment systems
- Does not add solids to sludge

DOSAGE:

PRIMARY COAGULANT: Use 25 to 300 ppm based upon effluent quality required.

COAGULANT AID: Dosages of 5 to 100 ppm are recommended. In potable water, dosages should not exceed 50 ppm. Optimum dosages are best determined by jar tests or use in the system.

FEEDING: For best results, feed diluted solutions of the required amount of AQUAFLOC 408. Feed solutions of 1 part AQUAFLOC 408 to 5 or 10 parts of water should be prepared.

When used as a primary coagulant, 408 should be fed to a thoroughly agitated portion of the system.

When used as a coagulant aid, 408 should be fed into a zone following the addition of lime, alum, iron salts or other primary coagulant, where floc formation has begun.

Pump feed solution continuously or proportionally to flow with a positive displacement pump.

PRODUCT DATA:

Color: Colorless, clear

Form: Liquid

Density: 8.5 lbs /gallon (1.01 kg/L)

Freezing point: 32° F (0°C)

pH: 4

HANDLING: Slightly acid. Avoid contact with skin, eyes or clothing. In case of contact with skin or eyes, immediately flush with water and get medical attention. Keep container closed when not in use.

PACKAGING: 55 Gallon drums — Approximately 460 lbs. net (208.66 kg)
30 Gallon drums — Approximately 250 lbs. net (113.4 kg)
5 Gallon pails — Approximately 42 lbs. net (18.65 kg)

This product is on the USDA authorized List of Chemical Compounds for use in official meat, egg and poultry processing establishments.

7GR6

SI 478504

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY DATE: 03/09/88 PAGE 01
PRODUCT CODE: 26-00114-01

CAS # 007722-84-1

FORMULA: H(2)O(2)

CHEMICAL FAMILY: Inorganic Peroxide

CHEMICAL NAME AND SYNONYMS: Peroxide 10%, Hydrogen Dioxide

SUPPLIERS NAME: Thompson-Hayward Chemical Company
5200 Speaker Rd
Kansas City Ks 66106
SUPPLIERS PHONE NUMBER: 913-321-3131
TRANSPROTATION EMERGENCY PHONE NUMBER: 1-800-424-9300

SECTION I Hazardous Ingredients

Ingredient	Percent	TLV
HYDROGEN PEROXIDE	10%	PEL/TWA 8 HR 1 ppm OSHA TLV/TWA 8 HR 1 ppm ACGIH

CTION II Health Hazards

Threshold Limit Value: As indicated in section I.

Potential Effects of Exposure:

Eyes: May cause eye burns, effects may be delayed, an extreme irritant.

Skin: Short term exposure causes skin irritation, longer exposure causes irritation, blisters or burns.

Inhalation: Inhalation of vapor or mist may cause irritation of nose and throat.

Ingestion: If swallowed it may cause a sudden evolution of oxygen which can cause injury by distention of the esophagus or stomach, and local internal bleeding may result.

First aid:

Eyes: Immediately flush eyes with plenty of water, for at least 15 minutes, lifting upper and lower lids periodically. Get medical attention. Contact lenses should not be worn while working with this chemical.

Skin: Thoroughly flush skin with water, remove and wash contaminated clothing promptly and thoroughly. Call a physician. Note (A) below.

Inhalation: Remove patient to fresh air. If irritation of throat or nose is apparent refer person to a physician.

Ingestion: DO NOT induce vomiting. Give water to dilute stomach contents. If vomiting occurs spontaneously, maintain head

CONTINUED ON PAGE 02

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY DATE: 03/09/88 PAGE 02
PRODUCT CODE: 26-00714-01

SECTION II Health Hazards CONTINUED

lower than than hips to prevent inhalation. Call a physician. See Note to Physician, (B), below.

Other Information:

(A) Protective skin creams do not offer protection from hydrogen peroxide and should not be worn - also see other protective measures given in Section III.

(B) Notes to Physician: Hydrogen peroxide at this concentrationis a strong oxidant. Direct contact with the eye is sufficiently likely to cause corneal damage, especially if not washed away immediately, that careful ophthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided; there is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distention due to gas formation.

(C) Chronic exposure, reported to be carcinogenic to mouse duodenum when administered at a level of 0.4% in the drinking water continuosly over a lifetime (108 weeks) (IARC 28:151, 1982).
There is "Limited Evidence" that H2O2 is carcinogenic to experimental animals, based on chronic drinking water study in mice (IARC, 36, 1985). Mice exposed to 0.4% H2O2 in drinking water for 108 weeks showed an increased incidence of duodenal cancer, compared to control mice. However, it is improbable that humans will be exposed to high oral doses of H2O2 due to the acute toxicity of concentrated solutions and the corrosivity of H2O2 to mucous membranes. An individual would theoretically have to drink 26 ML of 31% H2O2 for lifetime to develop the lesions seen in mice. Since this dose is expected to precipitate acute toxicity after one exposure, as reported for accident victims (Fed. Reg. 48, 52323, 1983), accidental oral exposure to H2O2 is unlikely. H2O2 is approved as GRAS (Generally Recognized as Safe) for use as a human food additive with no residues. Material is not listed as a carcinogen/potential carcinogen in the NTP Annual Report or by OSHA in 29 CFR Part 1910 Subpart Z.

SECTION III Special Protection Information

Respiratory Protection: For concentrations up to 10 ppm, use a NIOSH-approved supplied air respirator or SCBA (self contained breathing apparatus). Above this concentration see further NIOSH recommendations outlined in Ref. (2) Section IX. Do not use an oxidizable sorbent.

Ventilation Required: Good general ventilation should be maintained to keep peroxide concentrations below exposure limits.

Protective Clothing:

Eyes: Cup Type chemical goggles and/or full face mask are recommended.

Skin: When a possibility of contact exists, wear a hard hat with

CONTINUED ON PAGE 03

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY DATE: 03/09/88 PAGE 03
PRODUCT CODE: 26-00714-01

SECTION III Special Protection Information CONTINUED

brim, full length face shield; neoprene, butyl or vinyl rubber boots, clean acrylic or polyester outer clothing, chemical suit with hood.

Additional Protective Measures: Where exposure possible wear polyester or acrylic outer garments. Evaporation or drying of this material on clothing of combustibles may cause fire, and these synthetics are less susceptible. Avoid cracked, suede or other porous shoes.

SECTION IV Fire & Explosion Hazard Data

Flash Point (Method): Will not burn

Flammable Limits (% Volume in Air):

Upper: Will not burn, but decomposition will release oxygen, which in a confined space will increase explosive limits and burning rate of flammable vapors.

Lower: UNK

Extinguishing Media: Flush away with water.

Special Fire Fighting Procedures: Flood with water, use water to cool tanks or containers. Wear full protective clothing including splash goggles and SCBA in emergencies if hydrogen peroxide is leaking. Hydrogen peroxide vapors and mists are extremely irritating to the eyes and skin.

Unusual Fire and Explosion Hazards: Peroxide is non-combustible but is a strong oxidizer, on decomposition releases oxygen which may intensify fire.

SECTION V Physical Data

Boiling Point: 226 deg. F

Specific Gravity (H(2)O=1): 1.133

Vapor Pressure (MM HG.): 23 @ 30 deg. C

Vapor Density (AIR=1): UNK

Evaporation Rate (Butyl Acetate=1): >1

Solubility in Water: Complete

Percent Volatile by Volume: 100%

pH: Apparent 2.0-3.0, 1% solution 5-6

Appearance and Odor: Colorless liquid, slightly pungent odor.

CONTINUED ON PAGE 04

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY DATE: 03/09/88 PAGE 04
PRODUCT CODE: 26-00714-01

SECTION VI Reactivity Data

Stability: Unstable when exposed to excessive heat or contaminates of any kind such as the incompatibles listed below.

Incompatibility: With cyanides, hexavalent chromium compounds, nitric acid, potassium permanganate, reducing agents, iron and other heavy metals, galvanized iron, copper, copper alloys, rust, dirt, organics (particularly vinyl monomers) wood, paper or other combustibles, and material with pH's above 4.

Hazardous Decomposition Products: None.

Hazardous Polymerization: Will not occur, however, peroxide will catalyze polymerization - incompatibility as indicated above.

SECTION VII Spill and Leak Procedures

Steps to be taken if material is released or spilled:

Dilute with a large volume of water and hold in a pond or dyked area until the hydrogen peroxide decomposes. Dispose of as outlined below. DO NOT allow escape into sewers or natural watercourses before decomposition.

Waste Disposal Method:

After decomposition, consult with local, state, and federal officials, and subject to their approval discharge into a suitable treatment system.

If product is released prior to decomposition it is termed a hazardous waste as defined in RCRA (40 CFR 261.21), bearing hazardous waste No. D001.

Aquatic Toxicity Classification, Industry Data
Slightly Toxic to Fathead Minnow (96 HR LC(50): 22-35 mg/l)

SECTION VIII D.O.T. Shipping Information

Proper Shipping Name:	HYDROGEN PEROXIDE SOLUTION (8% TO 40% PEROXIDE)
Hazard Class:	OXIDIZER
ID Number:	UN2014
Label Requirements:	OXIDIZER
Reportable Quantity:	NONE
Other Information:	

CONTINUED ON PAGE 05

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY DATE: 03/09/88 PAGE 05
PRODUCT CODE: 26-00714-01

SECTION IX Additional Information

This information may be of importance to you:

No smoking where material is used or stored.

Minimize skin contact. Wash with soap and water before eating, drinking, smoking or using toilet facilities.

Safety shower, eye bath and washing facilities should be available.

STORAGE CONDITIONS: Store in properly vented container or in approved bulk storage facilities. Do not block vent in bung cap. Keep container out of sun and away from heat, sparks, and flame. Do not add any other product to container. Do not store with reducing agents, combustible or flammable materials, or heavy metal salts. Have water source available for diluting. Never return unused peroxide to container - dilute with plenty of water and discard. Rinse empty drums thoroughly with clean water before discarding. Protect drums from weather.

Never use pressure to empty drums, container is not a pressure vessel.

Containers of this material may be hazardous when emptied. "Empty" containers retain product residues. Observe all hazard precautions outlined in this sheet.

Utensils used for handling hydrogen peroxide should be of compatible materials like glass, stainless steel, aluminum or plastic.

Consumer Use:

Distribution, sales or use of hydrogen peroxide 10% (or other industrial strength concentrations of hydrogen peroxide) for consumer use, is NOT recommended, due to the hazards involved. Also you should be aware that hydrogen peroxide may be subject to regulation by the U.S. Dept. Of Transportation, EPA, The Consumer Product Safety Commission, and the FDA.

REFERENCES

(1) NIOSH/OSHA Pocket Guide to Chemical Hazards DHEW (NIOSH) Publication No. 85-114.

NPCAMMIS 301 X

THOMPSON-HAYWARD CHEMICAL COMPANY
KANSAS CITY, KANSAS

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: HYDROGEN PEROXIDE 10% BLK DLY
PRODUCT CODE: 26-00714-01 DATE: 03/09/88 PAGE 06

********** E N D O F R E P O R T **********

NAME: GENE TURNER

DATE ISSUED: 11/22/1985
DATE REVISED: 05/27/1986

< = LESS THAN
> = MORE THAN
N/A = NOT APPLICABLE
N/D = NOT DETERMINED
N/E = NOT ESTABLISHED
UNK = UNKNOWN

The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. Thompson-Hayward Chemical Co. provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Thompson-Hayward Chemical Company knows of no medical condition, other than those noted on this material safety data sheet, which are generally recognized as being aggravated by exposure to this product.

SI 683947

SynTech Products Corporation

520 E. Woodruff Avenue
Toledo, Ohio 43624
(419) 241-1215
24 Hour - Call INFOTRAC 1-800-535-5053

CLASS
2

Material Safety Data Sheet

Section I - Product Identification

Product Name:	Touch It Up Bulk
Chemical Family:	
Effective Date:	8/92
Formula:	Proprietary Mixture

Section II - Material or Component

Chemical Name	CAS#	WT%	PEL	TLV(ppm)	STEL	CARCIG
2 Butoxy Ethanol	111-76-2	1% +	50	50 (Skin contact)		No
Sodium Metasilicate	6834-92-0	1% +				No
Octylphenol Polyethoxylate	9002-93-1	1% +				No
Trisodium Phosphate	7601-54-9	1% +				No

Section III - Physical Data

Boiling Range (°F) of Concentrate:	N.D.
Vapor Pressure (psig) in Can @ 75°F:	65
Vapor Density:	N.D.
Solubility in Water of Concentrate:	Complete
Specific Gravity(H_2O=1) @ 75° F of Concentrate:	1.036
% Volatile by Volume in Can:	85
Flash Point of Spray:	None to 150°F Tag Open Cup
Appearance and Odor of Spray:	White foam, perfume odor

Section IV - Fire and Explosion Hazard Data

Flammability as per CPSC Flame Extension Test:	Non-Flammable
Flammable Limits:	LEL: N/A UEL: N/A
Extinguishing Media:	Foam, dry chemical, carbon dioxide.
Special Fire Fighting Procedures:	Keep containers cool. Use equipment or shielding required to protect personnel against bursting, rupturing, or venting containers.
Unusual Fire and Explosion Hazards:	At elevated temperatures (above 120°F) containers may vent, rupture, or

Section V - Reactivity Data

Chemical Stability:	Stable
Conditions to Avoid:	Do not expose to temperatures above 120°F.
Incompatibility (Materials to Avoid):	Strong oxidizing agents, strong acids or bases, selected amines.
Hazardous Decomposition By-Products:	Thermal decomposition may produce carbon monoxide and/or carbon dioxide.
Hazardous Polymerization:	Will NOT occur

Section VI - Health Hazard Data

OSHA Permissible Exposure Limit: N.D.
Threshold limit value: (See Section II)

Effects of Overexposure

Eyes:	Minor irritation
Skin:	No evidence of adverse effect from available information
Ingestion:	Can cause gastrointestinal irritation, vomiting, and diarrhea.
Inhalation:	Product exists as foam. Inhalation of the foam could cause asphyxiation.

Emergency and First Aid Procedures

Eyes:	Flush with water for at least 15 minutes.
Skin:	Wash exposed area with water and soap.
Ingestion:	Do not induce vomiting. Get medical attention.
Inhalation:	Treat for asphyxiation.

Section VII - Spill or Leak Procedures

Steps to be taken in case container is punctured and material is released:
Clean up area by mopping or with absorbent materials and place in closed containers for disposal. Consult federal, state, or local disposal authorities for approved disposal procedures.
Waste Disposal Method:
When used properly aerosol products do not generate hazardous waste. Empty de-pressurized containers can not be reused and should be wrapped an put in trash collection. Cans which are press contain liquid must be disposed of in a permitted waste management facility.
Consult federal, state, and local disposal authorities for approved procedures.

Section VIII - Special Protection Information

Specific Personal Protective Equipment

Respiratory Protection:	Under normal conditions no respiratory protection is required.
Ventilation:	Normal ventilation adequate.
Protective Gloves:	None required, protective gloves may be worn.
Eye Protection:	None required, chemical splash goggles may be worn.

Section IX - Special Precautions

Precautions to be taken in handling and storing:
Do not store at temperatures above 120°F.
Special precautionary statements:
Please read and follow the directions on the product label. They are you best guide to using this product in the most effective way, and give the necessary safety precautions to protect your health.

The above information pertains to this product as currently furnished, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition. We make no warranties, express or implied, and assume no liability in connection with any use of the information.

Prepared by J. Rose

MSDS - Touch It Up Bulk

UTS Utility Technical Services
A Subsidiary of Detroit Edison
8000 Second Avenue • Detroit Michigan 48226
(313) 897-8000 • FAX (313) 897-8918

FAX

DATE 10-30-92	# PAGES 3
TO Frank Brunnson	FROM D. Moore
CO. Commonwealth	CO. SYNTECH PRODUCTS
FAX # 815-357-6761	PHONE # 419-841-6048
REMARKS Ext 2245	October 30, 1992

12943

Mr. David Moore
SPQA Coordinator
SynTech Products Corporation
520 E. Woodruff Avenue
Toledo, Ohio 43624

Subject: Chemical Analysis of One Sample of Touch-It-Up., Lot#Sample, Batch # 10201, Received on SynTech Purchase Order No. 9964

Technical and Engineering Services Report No. 92A64-62

The results of the chemical analysis are as follows:

Element	Results	Element	Results
Arsenic	< 10ppm	Silver	< 10ppm
Calcium	< 10ppm	Cadmium	< 10ppm
Cobalt	< 10ppm	Chromium	< 10ppm
Copper	< 10ppm	Iron	< 10ppm
Mercury	< 10ppm	Magnesium	< 10ppm
Manganese	< 10ppm	Nickel	< 10ppm
Lead	< 10ppm	Selenium	< 10ppm
Tin	< 10ppm	Zinc	< 10ppm

Chloride	< 100ppm	Fluoride	< 100ppm
Sulfur	< 100ppm		
* TOC: 18,500ppm		* pH: 12.1	

* analysis performed in accordance with standard labortary methods

All work was performed in accordance with the Technical and Engineering Services Quality Assurance Program. QA Traveler No. 2091.

Written by: [signature]
Dr. P. M. Beckwith

Approved by: J. P. Cross
J. P. Cross
Supervisor

Approved by: [signature]
Quality Assurance

UTS is a Subsidiary of Detroit Edison

BULK SI 688856

Material Safety Data Sheet

Emergency Phone
708-438-1800

Section 1 Product Identification

TRADE NAME: DEARTEX 2425

PRODUCT TYPE: Wastewater Treatment

CODE IDENT.: 35-323

DOT SHIPPING NAME: Corrosive Liquid, N.O.S. Contains (Hydrochloric Acid) UN 1760

Section 2 Hazardous Ingredients

	CAS NUMBER	%	EXPOSURE CRITERIA
Hydrochloric acid	7647-01-0	< 5	TWA: 5 ppm (ceiling)

HMIS 3-0-0

Section 3 Physical Data

BOILING POINT, 760 mm Hg	> 212 F	MELTING POINT	NA
FREEZING POINT	- 42 F	VAPOR PRESSURE	ND
SPECIFIC GRAVITY (H2O = 1)	1.21	SOLUBILITY IN H2O	appreciable
VAPOR DENSITY (AIR = 1)	ND	EVAPORATION RATE (Bu Ac = 1)	< 1
% VOLATILES BY VOLUME	ND	pH	1.0 - 2.5

APPEARANCE & ODOR: yellow-brown liquid

Section 4 Fire & Explosion Hazard Data

FLASH POINT (& METHOD USED)	FLAMMABLE LIMITS IN AIR % BY VOLUME LOWER	UPPER	AUTO IGNITION TEMPERATURE
NA, water-based product	NA	NA	NA

EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES:

Firefighters should wear full protective gear including self contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARD:

Hydrogen chloride and chlorine gas may be liberated.

Section 5 Reactivity Data

STABILITY (NORMAL CONDITIONS): Stable

CONDITIONS TO AVOID: Extreme heat

INCOMPATIBILITY (MATERIALS TO AVOID)

Avoid direct contact with strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS

HCl, Cl2, CO, CO2, oxides of nitrogen

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: not applicable

GRACE Dearborn

Dearborn Division W. R. Grace & Co. - Conn., 300 Genesee Street, Lake Zurich, IL 60047 (708) 438-1800

Section 6 Health Hazard Information

TOXICITY INFORMATION:

Not established, see section 2 for component information.

EFFECTS OF OVEREXPOSURE:

INHALATION: Inhalation of vapors or mist may irritate nasal passages and lungs

INGESTION: Product will irritate or injure gastrointestinal tract.

SKIN CONTACT: Prolonged or frequent skin contact may cause irritation or burns.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove affected person to fresh air and treat symptoms.

INGESTION: If conscious, give water to dilute and contact physician immediately. Do not induce vomiting.

SKIN CONTACT: Wash with soap & water. Remove contaminated clothing and wash before reuse.

EYE CONTACT: Flush with water for 15 minutes and seek medical attention.

Section 7 Special Protection Information

VENTILATION REQUIREMENTS
Use adequate mechanical ventilation.

RESPIRATORY PROTECTION (SPECIFY TYPE)
None special

EYE PROTECTION
Goggles or face shield

GLOVES
Impervious

OTHER PROTECTIVE CLOTHING AND EQUIPMENT

Long sleeve work shirt and pants.

Section 8 Spill or Leak Procedures

STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED

Wear protective clothing. Collect using absorbent, place in container for proper disposal. Flush area of spill with water.

WASTE DISPOSAL METHOD

Dispose of in accordance with federal, state and local regulations.

Contains < 5% of hydrochloric acid, CAS NO. 7647-01-0 Which may require reporting under section 313 of SARA Title III and 40 CFR.

Section 9 Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Open with care. Keep container closed when not in use.
Store containers closed away from extreme temperatures.

OTHER PRECAUTIONS

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

PREPARED BY: P GABRIS DATE: 8/20/91

GRACE Dearborn
Dearborn Division W. R. Grace & Co. - Conn., 300 Genesee Street, Lake Zurich, IL 60047 (708) 438-1800

SI 192512

MATERIAL SAFETY DATA SHEET

Ethyl Chemicals Group

FOR EMERGENCIES ONLY - Phone 504-344-7147

For Nonemergency Health and Safety Information Phone 504-388-7717

98.0.6

PRODUCT IDENTIFICATION

TRADE NAME:	SODIUM BROMIDE 38
CHEMICAL NAME:	Sodium Bromide, Water Solution
CAS NO.:	Not applicable-mixture
CHEMICAL FORMULA:	NaBr/H2O
CHEMICAL FAMILY:	Metal Bromide

THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601 - 2629).

SUMMARY OF HAZARDS

Eye irritant.

HAZARDOUS COMPONENTS

CHEMICAL NAME	CAS NO.	NOTE+	EXPOSURE LIMIT
Sodium Bromide	7647-15-6	NL	Not established by OSHA/ACGIH.

+NOTE: Carcinogenicity listing of components at concentrations greater than or equal to 0.1% indicated by: $=NTP; #=IARC; &=OSHA; *=OTHER; NL=Not Listed

CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR:	Clear liquid/little or no odor.
BOILING POINT:	110-112C/212-234F.

08/02/89

EMERGENCY PHONE NUMBER
(504) 344-7147

TRADE NAME: SODIUM BROMIDE 38

98.0.6

CHEMICAL AND PHYSICAL PROPERTIES (Con't)

VAPOR PRESSURE:	17.5 mm Hg @ 20C/68F for aqueous portion of solution.
SOLUBILITY IN WATER:	Miscible.
SPECIFIC GRAVITY:	1.47 @ 21C/70F.
PERCENT VOLATILE:	62% water (by weight).

FIRE AND EXPLOSION HAZARDS

FLASH POINT(METHOD):	Non-flammable.
FLAMMABLE LIMITS:	Not applicable.
EXTINGUISHING MEDIA:	None required.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:	Includes bromine.
SPECIAL FIRE FIGHTING PROCEDURES:	Avoid breathing fumes.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.

REACTIVITY DATA

STABILITY:	Stable.
CONDITIONS TO AVOID:	Extremely high heat.
MATERIALS TO AVOID:	Strong acids and strong oxidizing agents; corrosive to aluminum.
HAZARDOUS POLYMERIZATION:	Will not occur.

EMERGENCY PHONE NUMBER (504) 344-7147

TRADE NAME: SODIUM BROMIDE 38

98.0.6

HEALTH HAZARDS

INHALATION:	Not expected to be a primary route of exposure.
EYE CONTACT:	Expected to be an eye irritant.
SKIN CONTACT:	Repeated or prolonged skin contact may cause irritation and superficial burns.
INGESTION:	Not expected to be a primary route of exposure.

CHRONIC EFFECTS OF OVEREXPOSURE:
None known.

EMERGENCY FIRST AID PROCEDURES

EYE CONTACT:	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
SKIN CONTACT:	Wash contaminated areas with soap and water.
INGESTION:	Give two glasses of water. Do not induce vomiting. Get medical attention.

EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS:	Not established by OSHA/ACGIH.
EYE PROTECTION:	Chemical goggles.
PROTECTIVE GLOVES:	Resistant to chemical penetration.
RESPIRATORY PROTECTION:	None under normal conditions.

LOCAL EXHAUST VENTILATION:
Not required.

MECHANICAL VENTILATION: Recommended.

EMERGENCY PHONE NUMBER (504) 344-7147

TRADE NAME: SODIUM BROMIDE 38

98.0.6

EXPOSURE CONTROL INFORMATION (Con't)

OTHER:	If repeated or prolonged skin contact or contamination of clothing is likely, protective clothing should be worn.

ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS:	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.
DISPOSAL METHODS:	Under the CERCLA/RCRA regulations currently in effect, this product is not regulated as a hazardous waste or material. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations. If used as a pesticide, contact your Regional office of EPA for guidance in disposal of this product.
STORAGE REQUIREMENTS:	Store in dry, well-ventilated area.

EMERGENCY PHONE NUMBER
(504) 344-7147

TRADE NAME: SODIUM BROMIDE 38

98.0.6

ISSUE DATE: 08/02/89

SUPERSEDES: 10/09/87

MSDS prepared by: Health & Environment Department
Ethyl Corporation

FOR ADDITIONAL NONEMERGENCY MSDS INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT
ETHYL CORPORATION
451 FLORIDA ST.
BATON ROUGE, LA. 70801
(504) 388-7717

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200(g) (2).

SI 800762

A. STEEL CHEMICALS INC.

WARENESS for AFETY

Bulk Chemical

MATERIAL SAFETY DATA SHEET

SEC 1 PRODUCT IDENTIFICATION

PRODUCT NAME:
SODIUM HYPOCHLORITE SOLUTION

EFFECTIVE DATE:
March 1, 1990

CAS NUMBER:
7681-52-9

CHEMICAL FORMULA:
NaOCL (SOLUTION)

HAZARDOUS INGREDIENTS:
SODIUM HYPOCHLORITE 13.07 - 14.51 %

EMERGENCY RESPONSE FACILITY COORDINATORS:

LEMONT, IL	GARY, IN	RENSSELAER, NY
(708) 257-3909	(219) 882-5778	(518) 432-4173

EMERGENCY TELEPHONE NUMBERS

Schiller Park Office	1-708-671-5070
24 Hour Security	1-708-257-3918

SOUTHGATE O'HARE OFFICE PLAZA • SUITE 250
4333 TRANSWORLD ROAD • SCHILLER PARK, ILLINOIS 60176 • 708-671-5070 • Fax: 708-671-5009

HYPO80.QTS

SEC 2 PHYSICAL DATA

APPEARANCE:
CLEAR to YELLOW LIQUID

ODOR:
PUNGENT, IRRITATING , THAT OF HOUSEHOLD BLEACH.

SOLUBILITY:
COMPLETE

BOILING POINT:
DECOMPOSES PRIOR TO BOILING

SPECIFIC GRAVITY:
1.205 @ 13.07%
1.230 @ 14.51%

VAPOR PRESSURE:
APPROX. THAT OF AIR

EVAPORATION RATE:
NOT APPLICABLE

SEC 3 FIRE AND EXPLOSION INFORMATION

FIRE:
NOT CONSIDERED TO BE A FIRE HAZARD.

EXPLOSION:
NOT CONSIDERED AN EXPLOSION HAZARD.

FIRE EXTINGUISHING MEDIA:
USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE.

SPECIAL INFORMATION:
WEAR FULLY ENCAPSULATED SUITS WITH SELF-CONTAINED BREATHING APPARATUS (POSITIVE PRESSURE)

SEC 4 REACTIVITY DATA:

STABILITY:
STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.
UNSTABLE AT ELEVATED TEMPERATURES

HAZARDOUS DECOMPOSITION PRODUCTS:
DECOMPOSES UNDER VARIOUS MECHANISMS. MAY GENERATE CHLORINE OR OXYGEN WHICH CAN BE TOXIC AND EXPLOSIVE, RESPECTIVELY.

HAZARDOUS POLYMERIZATION:
THIS SUBSTANCE DOES NOT POLYMERIZE.

INCOMPATIBILITIES (MATERIALS TO AVOID):
REACTS VIGOROUSLY WITH AMINE, AMMONIUM ACETATE, AMMONIUM OXALATE, ACIDS AND MOST ORGANICS.

SEC 5 LEAK/SPILL DISPOSAL INFORMATION

RELEASES/SPILLS:
MOVE UNPROTECTED PERSONNEL UPWIND OUT OF DANGER.

REPORTABLE QUANTITY (RQ) (CWA/CERCLA): 100 LBS. 454 Kg

DISPOSAL:
DILUTE WITH WATER AND FLUSH TO LOCAL SEWER SYSTEM , IF PERMITTED. SOLID WASTE MUST BE DISPOSED OF IN A PERMITTED WASTE MANANGEMENT FACILITY. ENSURE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SEC 6 HEALTH HAZARD INFORMATION

A. EXPOSURE/HEALTH EFFECTS

INHALATION:
RESPIRATORY TRACT IRRITANT.

INGESTION:
CAN CAUSE CORROSION OF THE MUCOUS MEMBRANES.

SKIN CONTACT:
CONTACT WITH LIQUID CAN CAUSE CHEMICAL BURNS AND POSSIBLE TISSUE DESTRUCTION. IMMEDIATELY FLUSH WITH WATER.

EYE CONTACT:
WASH EYES FOR AT LEAST TWENTY MINUTES . IF IRRITATION CONTINUES AFTER FLUSHING , SEEK MEDICAL ATTENTION.

CHRONIC EXPOSURE:
NO DATA FOUND

TOXICITY DATA: (RTECS 1983-4 SUPPLEMENT TO 81-82; NH3486300),
MUTAGENITY DATA:
cyt-hmn:lym 100 ppm/24H (human)
cyt-ham:lng 100 mg/L (hamster)

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:
NTP -NO ; IARC -NO ; OSHA -NO ; ACGIH -NO

B. EMERGENCY/FIRST AID

INGESTION :
DO NOT INDUCE VOMITING! GIVE LARGE QUANTITIES OF WATER NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

INHALATION:
MOVE PERSON TO FRESH AIR AT ONCE. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. ADMINISTER OXYGEN.

EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 20 MINUTES. IN CASE OF SKIN CONTACT- IMMEDIATELY FLU H SKIN WITH PLENTY OF WATER. REMOVE ANY CONTAMINATED CLOTHING.

SEC 7 OCCUPATIONAL CONTROL MEASURES

OSHA PERMISSABLE EXPOSURE LIMIT:
NOT ESTABLISHED

VENTILATION SYSTEM:
LOCAL EXHAUST

PERSONAL RESPIRATORS: (NIOSH APPROVED)
RECOMMENDED FOR ALL PERSONNEL WORKING IN OR ABOUT AN AREA OF POTENTIAL EXPOSURE.

SKIN PROTECTION:
WEAR IMPERVIOUS PROTECTIVE CLOTHING; INCLUDING BOOTS; GLOVES; LAB COAT; APRON OR COVERALLS TO PREVENT SKIN CONTACT.

EYE PROTECTION:
USE CHEMICAL SAFETY GOGGLES IMPERVIOUS TO PRODUCT. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH THIS MATERIAL. MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

SEC 8 STORAGE AND SPECIAL INFORMATION

STORE IN A COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE. KEEP SEPARATE FROM INCOMPATIBLES.

SEC 9 REGULATORY INFORMATION

DOT HAZARD CLASS:	DOT PLACARD REQUIRED:	DOT LABEL:
CORROSIVE MATERIAL	CORROSIVE NA 1791	CORROSIVE

REGULATED UNDER THE FEDERAL INSECTICIDE FUNGICIDE and ROTENTICIDE ACT (FIFRA) IF ANY SANITATION OR DISINFECTION CLAIMS ARE MADE ON LABEL.

NFPA/HMIS ratings: Health - 3 ; Flammability - 0 ; Reactivity - 0, higher alkalinity R - 1.

SARA TITLE III- SEC. 302, 304, 311, 312.

REPORTABLE QUANTITY (RQ) (CWA/CERCLA): 100 LBS.

Material Safety Data Sheet

Genium Publishing Corporation
1145 Catalyn Street
Schenectady, NY 12303-1836 USA
(518) 377-8855

GENIUM PUBLISHING CORP.

No. 9
SULFURIC ACID, CONCENTRATED
Revision C
Issued: October 1980
Revised: February 1986

SECTION 1. MATERIAL IDENTIFICATION

19

MATERIAL NAME: SULFURIC ACID, CONCENTRATED

OTHER DESIGNATIONS: Oil of Vitriol, Hydrogen Sulfate; H_2SO_4; CAS #7664-93-9

MANUFACTURER/SUPPLIER: Available from many suppliers, including:
Allied Corporation, PO Box 2064R, Morristown, NJ 07960; Telephone: 800 631-8050

HMIS
H:3
F: 0
R: 2
PPE: *
* See Sect. 8

R 1
I 3
S 4
K 0

SECTION 2. INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Hydrogen Sulfate (H_2SO_4) Water	93-98 Balance*	8-hr TWA: 1 mg/m^3
* Material is obtained by the reaction of SO_3 and water. Can contain low impurity levels, such as 0.02% max of iron as Fe. Properties vary with H_2SO_4 content.		Human, Mist Inhalation, TCLo: 3 mg/m^3, 24 wk. (Toxic Mouth Effects)
Current OSHA standard and ACGIH (1985-86) TLV. NIOSH has a 10-hr TWA, 40-hr. work week, of 1 mg/m^3.		Rat, Oral, LD_{50}: 2140 mg/kg

SECTION 3. PHYSICAL DATA

	93.19% H_2SO_4	98.33% H_2SO_4	100% H_2SO_4
Boiling Point, 1 atm, deg C	ca 281	ca 338	ca 330 (dc)
Specific Gravity (60/60°F)	1.8354	1.84	1.84
Volatiles, % @ 340°C	ca 100	ca 100	ca 100
Melting Point, deg C	ca -34	ca 3	10.4

Water Solubility ... Complete Miscible

Vapor Pressure, mm Hg @ 100°F ... <1 (93.19% H_2SO_4); Deg. Baume ... 66 (93.19% H_2SO_4) - Density of H_2SO_4 is often reported in degrees Baume Be). Formula is Be=145 [145/sp gr for liquids heavier than water].

Appearance and odor: Clear, colorless, hygroscopic, oily liquid with no odor. Mists greater than 1 mg/m^3 are easily recognizable. Those at 5 mg/m^3 are distinctly objectionable.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	LOWER	UPPER
None - Nonflammable	NA	NA	NA	NA

Sulfuric acid is nonflammable; however, it is a strong oxidizing agent and may cause ignition by contact with combustible materials. Small fires may be smothered with suitable dry chemical. Cool exterior of storage tanks of H_2SO_4 with water to avoid rupture if exposed to fire. Do not add water or other liquid to the acid! The acid, especially when diluted with water, can react with metals to liberate flammable hydrogen gas.

Sulfuric acid mists and vapors from a fire area are corrosive (see sect. 5).

Fire fighters must wear self-contained breathing equipment and fully protective clothing.

SECTION 5. REACTIVITY DATA

Sulfuric acid is stable under normal conditions of use and storage. It does not undergo hazardous polymerization. It is a strong mineral acid reacting with bases and metals. The concentrated acid is also a dehydrating agent, picking up moisture readily from the air or other materials. Hydrogen gas may be generated within a H_2SO_4 container. Vent drums cautiously.

This material reacts exothermically with water. (Acid should always be added slowly to water. Water added to acid can cause boiling and uncontrolled splashing of the acid.) Sulfur oxides can result from decomposition and from oxidizing reactions of sulfuric acid.

SECTION 6. HEALTH HAZARD INFORMATION | TLV

Concentrated sulfuric acid is a strong mineral acid, an oxidizing agent, and a dehydrating agent that is rapidly damaging to all human tissue with which it comes in contact. Ingestion may cause severe injury or death. Eye contact produces severe or permanent injury. Inhalation of mists can damage both the upper respiratory tract and the lungs. Sulfuric acid is not listed as a carcinogen by the NTP, IARC, or OSHA.

FIRST AID: EYE CONTACT: Immediately flush eyes (including under eyelids) with plenty of running water for at least 15 minutes. Speed in diluting and rinsing out acid with water is extremely important if permanent eye damage is to be avoided. Obtain medical help as soon as possible.* SKIN CONTACT: Immediately flush affected areas with water, removing contaminated clothing while under the safety shower. Continue washing with water and get medical attention.* INHALATION: Remove to fresh air. Restore breathing. Call a physician immediately. INGESTION: Dilute acid immediately with large amounts of milk or water, then give milk of magnesia to neutralize. Never give anything by mouth to an unconscious person. Do not induce vomiting; if it occurs spontaneously, continue to administer fluid. Obtain medical attention as soon as possible.*

Maintain observation of patient for possible delayed onset of pulmonary edema.

* GET MEDICAL HELP = in plant, paramedic, community.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Handle major spills by a predetermined plan. Contact supplier for assistance in this planning, in meeting local regulations, and for disposing of large amounts. Notify safety personnel. Provide optimum ventilation; vapors are extremely irritating. Stop leak if you can do so without risk.

Cleanup personnel need protection against inhalation or contact. Keep upwind. Contain spill. Minor leaks or spills can be diluted with much water and neutralized with soda ash or lime. If water is not available, cover contaminated area with sand, ashes, or gravel and neutralize cautiously with soda ash or lime.

DISPOSAL: Follow Federal, state, and local regulations. Runoff to sewer may create hydrogen gas, which is a fire or explosion hazard. EPA (CWA) RQ 1000 lbs. (40 CFR 117).

SECTION 8. SPECIAL PROTECTION INFORMATION

Provide general ventilation to meet current TLV requirements in the workplace. Where mists are up to 50 mg/m^3, a high-efficiency particulate respirator with full facepiece is warranted; a type-C supplier-air respirator with full facepiece operated in pressure-demand mode is used to 100 mg/m^3.

Avoid eye contact by use of chemical safety goggles or face shield where splashing may occur. Acid-resistant protective clothing, such as rubber gloves, aprons, boots, and suits, is recommended to avoid body contact.

Eyewash fountain and safety showers with deluge type of heads should be readily available where this material is handled or stored.

Contact lenses pose a special hazard; soft lenses may absorb and all lenses concentrate irritants.

Comprehensive preplacement and annual medical examinations with emphasis on dental erosion, cardiopulmonary system, and mucous membrane irritation and cough are indicated.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Sulfuric acid in carboys or drums should be stored in clean, ventilated storage areas having acid-resistant floors with good drainage. Keep out of direct sunlight, do not store above 89.6°F (32°C). Storage facilities are to be separate from organic materials, metallic powders, chromates, chlorates, nitrates, carbides, oxidizables, etc. Soda ash, sand, or lime should be kept in general storage or work areas for emergency use. Protect containers against physical damage. Glass bottles need extra protection. Sulfuric acid is highly corrosive to most metals, especially below 77% H_2SO_4. Avoid breathing mist or vapors. Avoid contact with skin or eyes. Do not ingest. Do not add water to concentrated acid. Drums may contain hydrogen gas, so open cautiously. Use nonsparking tools free of oil, dirt, and grit and vapor-proof electrical fixtures

DOT Classification: Corrosive Material. ID No.: UN1830 Label: Corrosive

Data Source(s) Code: 1-12, 19, 20, 24, 26, 31, 37-39, 42, 82. CK

Approvals J. Marucco, 6/86.

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