

Union Electric Company  
Callaway Power Plant  
NPDES PERMIT RE-APPLICATION  
February, 1985

8502220148 850208  
PDR ADOCK 05000483  
P PDR



REISSUE

FOR AGENCY USE ONLY  
APPLICATION NUMBER  
MO -  
DATE RECEIVED

FORM A - APPLICATION FOR DISCHARGE PERMIT - ALL APPLICANTS

DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

MISSOURI DEPARTMENT OF NATURAL RESOURCES - DIVISION OF ENVIRONMENTAL QUALITY  
P. O. Box 1368  
Jefferson City, Missouri 65102

1.10 Construction permit application \_\_\_\_\_. A \$25.00 filing fee must accompany each application for a construction permit.

1.20 Operating permit application X. A \$75.00 filing fee must accompany each application for an operating permit.

Filing fees must be in the form of check, bank draft, or money order, payable to the State of Missouri. Cash will not be accepted.

2.10 Name of Facility Callaway Plant

2.20 Facility Address P.O. Box 620, Fulton Mo. 65251  
Street City State Zip Code

2.30 This facility is now in operation under Missouri Operating Permit Number MO-0098001

2.40 This is a new facility and was constructed under Missouri Construction Permit Number \_\_\_\_\_. (Complete only if this facility does not have an operating permit.)

2.50 Owner Name Union Electric Company Phone (314) 554-2106

Address 1901 Gratiot St. St. Louis, Mo. 63103  
Street City State Zip Code

2.60 Operating Authority Name Same

Address \_\_\_\_\_  
Street City State Zip Code

2.70 Facility Contact Name Steven E. Miltenberger Phone (314) 676-8000

Title Plant Manager

2.80 Additional forms necessary to complete this application:

a. Does your facility receive and treat basically domestic waste:

      \*       yes (complete form B)        no      \* See Outfall 007

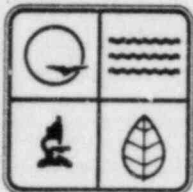
b. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility:       X       yes (complete form C and answer c of this subpart)  
       no

c. Is your facility considered a "primary industry" under EPA guidelines:  
      X       yes (complete forms C & D)        no

2.90 I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law, of the Missouri Clean Water Commission.

Donald F. Schnell Date: 2/1/85  
Applicant's Signature (see instructions)

D. F. Schnell, Vice President Nuclear



FOR AGENCY USE ONLY  
APPLICATION NUMBER  
MO - \_\_\_\_\_  
DATE RECEIVED \_\_\_\_\_

FORM C - APPLICATION FOR DISCHARGE PERMIT

MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS

DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

MISSOURI DEPARTMENT OF NATURAL RESOURCES - DIVISION OF ENVIRONMENTAL QUALITY  
P. O. Box 1368  
Jefferson City, Missouri 65102

- 1.00 NAME OF FACILITY Callaway Power Plant
- 1.10 This facility is now in operation under Missouri Operating Permit Number MO-0098001
- 1.20 This is a new facility and was constructed under Missouri Construction Permit Number \_\_\_\_\_ . (Complete only if this facility does not have an operating permit.)
- 2.00 List the Standard Industrial Classification (SIC) codes applicable to your facility (4 digit code).
- a. first 4911 Electric Services b. second 4949 Water Supply
- c. third \_\_\_\_\_ d. fourth \_\_\_\_\_
- 2.10 For each outfall give the legal description
- Outfall Number (list) \_\_\_\_\_  $\frac{1}{2}$  \_\_\_\_\_  $\frac{1}{2}$  Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_
- See Attachment A
- 2.20 For each outfall list the name of the receiving water
- Outfall number (list) \_\_\_\_\_ Receiving water \_\_\_\_\_
- All designated outfalls discharge to the Missouri River.
- 2.30 Briefly describe the nature of your business: Steam Electric Power Plant (Nuclear)

ALL FLOWS IN GPD

2.40

- 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, public sewers 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		3. Treatment	
	a. Operation (list)	b. Average flow (include units) (maximum flow)	a. Description	b. List codes from Table A

001 - Radwaste Treatment System	113500(258,000)		
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Treatment - Discharge. Other wastewater treatment systems are used

as required to treat this wastestream for recycle or discharge

in compliance with NRC requirements and are also available

as auxiliary or backup treatment systems to treat this discharge

for compliance with NPDES permit limitations. (See Attachment A)

Codes -	4-A
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Subsystems -

Boron Recycle	2500
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Liquid Radwaste	7500
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Train A	1500
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Train B	6000
---------	------

Laundry/Hot Shower	500
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Secondary Liquid Waste	103,000
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Condensate Regen	88,000
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Floor Drains	15,000
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Steam Generator Blowdown	0
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ALL FLOWS IN GPD

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- 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		3. Treatment	
	a. Operation (list)	b. Average flow (include units) (maximum flow)	a. Description	b. List codes from Table A

NOTE: Solid waste from the radwaste treatment system is disposed of  
in accordance with Nuclear Regulatory Commission (NRC) regulations.

002) Cooling Tower Blowdown 5,960,000 (14,400,000)

Treatment - Discharge 4A

003) Water Treatment Plant Blowdown 332000 (1,305,000)

NOTE: The above flows represent the system wastewater effluent. Actual discharge may vary from zero, with total recycle, to the maximum above, with direct discharge.

Treatment - ranges from Sedimentation to Discharge (direct)  
to Reuse/Recycle

Codes 1-U and/or 4-A and/or 4-C

Subsystems - Clarifier blowdown 330,000

Carbon Filter backwash 1700

ALL FLOWS IN GPD

2.40

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- 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		3. Treatment	
	a. Operation (list)	b. Average flow (include units) (maximum flow)	a. Description	b. List codes from Table A

004 - Demineralizer Systems Wastes 70300(187000)

Treatment - Neutralization, Sedimentation and Discharge.

Codes; 2-K, 1-U, 4-A

Subsystems - Cation Regeneration 21300

Anion Regen. 38700

Mixed Bed Regen. 3300

Building Sumps. 7000

005 - Oily Wastewater Separator 33000(144000)

Treatment - Gravity / Coalescer, Filtration, Discharge

Codes; undefined, 4-A

NOTE: Removed oil is accumulated on site, and disposed of in accordance with applicable regulations.

ALL FLOWS IN GPD

2.40

- 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, public sewers 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		3. Treatment	
	a. Operation (list)	b. Average flow (include units) (maximum flow)	a. Description	b. List codes from Table A

007 - Sanitary Wastewater Treatment Plant 24000 (40000)

Treatment - Activated Sludge, Sedimentation, Discharge to Surface Water

Codes; 3-A, 1-U, 4-A

NOTE: Sanitary waste treatment sludge is accumulated on site in an aerated sludge holding basin, then transferred for disposal to a publicly owned treatment works. At the present time, the city of Columbia, MO., receives our sludge for treatment and disposal.

008 - Cooling Water Chemical Control System 1000 (4000)

Treatment - Discharge. Code 4-A

Subsystems - Water Softener Regen 500

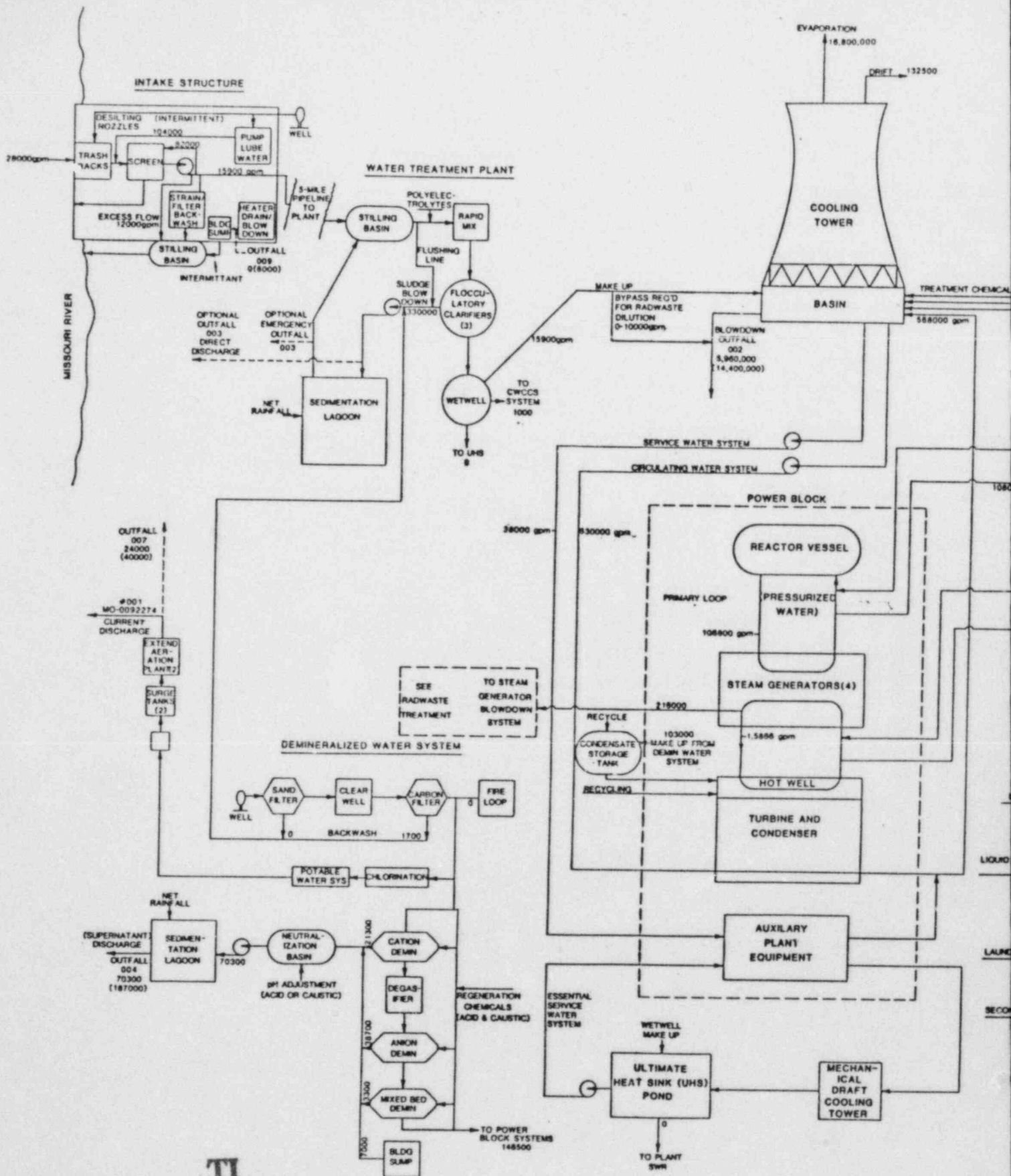
Maintenance Washes 500

009 - Intake Electric Heaters 0 (1000)

Treatment - Neutralization, Discharge

Codes; 2-K, 4-A





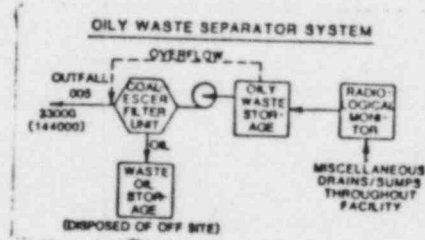
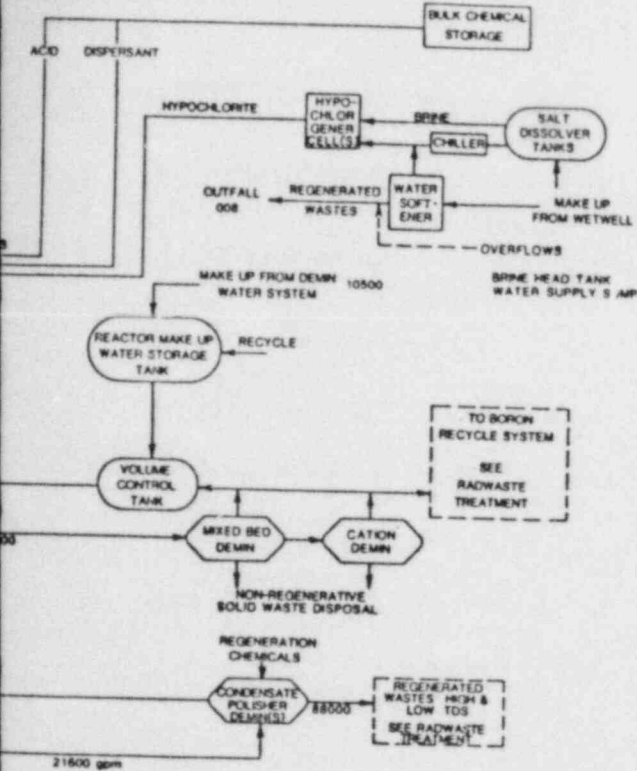
TI  
APERTURE  
CARD

CIRCULATING WATER  
CHEMICAL CONTROL SYSTEM  
(CWCCS)

CALLAWAY NPDES FLOW DIAGRAM

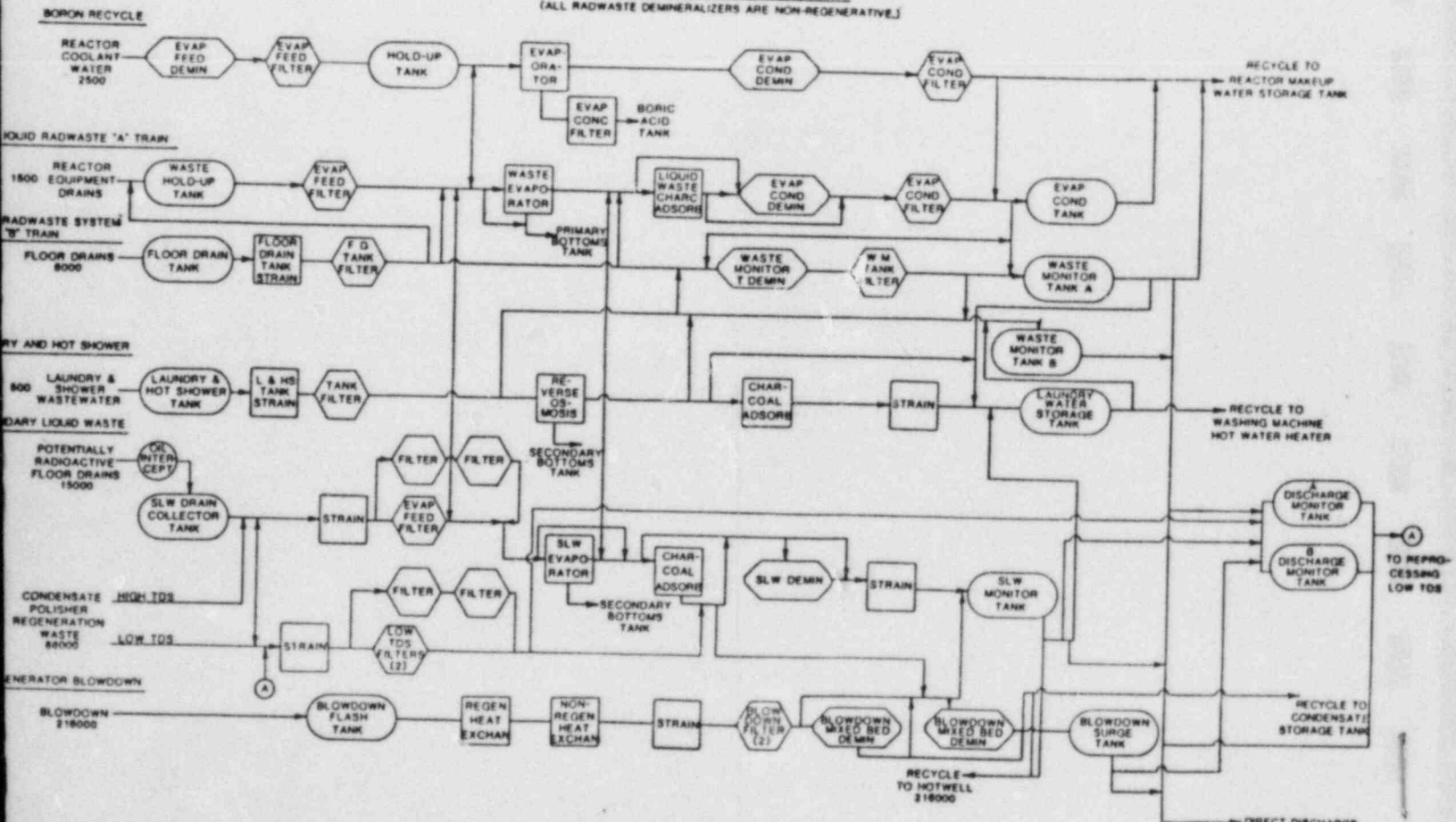
NOTES

1. ALL PLANT OUTFALLS EXCEPT 008 TIE INTO A SINGLE PIPELINE, WHICH DISCHARGES TO THE MISSOURI RIVER JUST DOWN STREAM OF THE INTAKE STRUCTURE.
2. ALL SYSTEMS HAVE BEEN SIMPLIFIED FOR CLARITY.
3. ALL SYSTEMS, AND MOST SIGNIFICANTLY, RADWASTE TREATMENT, ARE DESIGNED FOR FLEXIBILITY. IN RADWASTE, THE TREATMENT LEVEL IS DICTATED BY a) RADIOLOGICAL CONTAMINATION, AND NRC MANDATED DISCHARGE CRITERIA, AND b) THE NEED, FEASIBILITY AND ECONOMICS OF RECYCLE VS. DISCHARGE.
4. ALL FLOWS IN gpm UNLESS OTHERWISE SPECIFIED.
5. INTERNAL DETAILS OF THE RADWASTE TREATMENT SYSTEM ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.



Also Available On  
Aperture Card

RADWASTE TREATMENT SYSTEM  
(ALL RADWASTE DEMINERALIZERS ARE NON-REGENERATIVE)



C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items A or B intermittent or seasonal?  
 **YES** (complete the following table)  **NO** (go to Section 2.50)

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION (S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				c. DUR- ATION <i>(in days)</i>
		a. DAYS PER WEEK <i>(specify average)</i>	b. MONTHS PER YEAR <i>(specify average)</i>	a. FLOW RATE <i>(in mgd)</i>		b. TOTAL VOLUME <i>(specify with units)</i>		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
See Attachment C								

**2.50 MAXIMUM PRODUCTION**

- A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?  
 **YES** (complete B)  **NO** (go to Section 2.60)
- B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?  
 **YES** (complete C)  **NO** (go to Section 2.60)
- C. If you answered "Yes" to B, list the quantity which represents an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS <i>(list outfall numbers)</i>
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i>	

**2.60 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 waste-water 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** (to go 3.00)

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

\* 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.**

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A & B. See instructions before proceeding - Complete one table for each outfall - Annotate the outfall number in the space provided.  
NOTE: Table 1 is included on separate sheets numbered 6 through 7.

C. Use the space below to list any of the pollutants listed in Table B 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
Asbestos	Asbestos Cement Board is used in the Cooling Tower Fill. The cooling Tower Basin Chemistry is controlled to minimize tower fill deterioration.
Strontium, Zirconium	Several isotopes of Strontium and Zirconium are produced within the reactor by fission and activation processes. Calculations show that a very small amount of these isotopes (approximately $10E-6$ mg/l) may be released from Outfall 001.

3.10 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 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported 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 3.30)

A. Name	B. Address	C. Telephone (area code & No.)	D. Pollutants Analyzed * (list)
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Controls for Environmental Pollution, Inc.

P. O. Box 5351

Santa Fe, New Mexico 87502

800-545-2188

\* See Attachment F

3.30 CERTIFICATION

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 individuals immediately responsible for obtaining the information, 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.

D. F. Schnell, Vice President - Nuclear

(314) 554-2650

A. Name & Official Title (type or print)

B. Phone No. (area code & No.)

*Donald F. Schnell*  
C. Signature (see instructions)

2/1/85  
D. Date Signed

Form C

TABLE I for 3.00 Item A & B

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheets  
use the same format instead of completing these pages.  
SEE INSTRUCTIONS.

OUTFALL NO.  
001

INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-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						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a. Biochemical Oxygen Demand (BOD <sub>5</sub> )	12	7.9					1	mg/l	lbs/d			
b. Chemical Oxygen Demand (COD)	25.5	16.9					1	mg/l	lbs/d			
c. Total Organic Carbon (TOC)	53	35					1	mg/l	lbs/d			
d. Total Suspended Solids (TSS)	8.8	5.8	6.0	6.3	4.6	4.1	1/31/92	mg/l	lbs/d			
e. Ammonia (as N)	147	97.3					1	mg/l	lbs/d			
f. Flow	VALUE 79320 *		VALUE 125000		VALUE 108000		1/31/92	gal/d	N.A.	VALUE		
g. Temperature (winter)	VALUE 24.5		VALUE		VALUE			°C		VALUE		
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 6.02	MAXIMUM 8.83	MINIMUM 6.02	MAXIMUM 9.00	X			STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		b. NO OF ANALYSES			
	a. BELIEVED PRESENT	b. 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	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
a. Bromide (249-9-67-9)	X													
b. Chlorine Total Residual	X													
c. Color	X													
d. Fecal Coliform	X													
e. Fluoride (10584-48-8)	X		0.47	0.31					1	mg/l	lbs/d			
f. Nitrate-Nitrite (as N)	X		0.07	0.05					1	mg/l	lbs/d			

CONTINUED FROM FRONT

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		1.1	0.73	1.4	1.4	1.3	1.1	1/31/92	mg/l	lbs/d			
i Phosphorus (as P) Total (7723-14-0)		X												
j Radioactivity														
(1) Alpha Total	X		1.04E-7	31.2	(Not calculated; see radiological record)				1	uC/ml	uC/d			
(2) Beta Total	X		1.78E-7	53.4	(Not calculated; see radiological record)				1	uC/ml	uC/d			
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		2649	1752					1	mg/l	lbs/d			
l Sulfide (as S)	X		0.06	0.04					1	mg/l	lbs/d			
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X		< 2	< 1					1	mg/l	lbs/d			
n Surfactants	X*													
o Aluminum Total (7429-90-5)	X		0.19	0.13					1	mg/l	lbs/d			
p Barium Total (7440-39-3)	X		< 0.1	< 0.07					1	mg/l	lbs/d			
q Boron Total (7440-42-8)	X		0.54	0.36					1	mg/l	lbs/d			
r Cobalt Total (7440-48-4)	X		< 0.01	< 0.007					1	mg/l	lbs/d			
s Iron Total (7439-89-6)	X		3.10	2.05					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		1.84	1.22					1	mg/l	lbs/d			
u Molybdenum total (7439-98-7)	X		< 0.01	< 0.007					1	mg/l	lbs/d			
y Manganese Total (7439-96-5)	X		0.36	0.24					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 0.07					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												

Form C

TABLE I for 3.00 Item A & B

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

OUTFALL NO.  
002

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

1. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)		4. INTAKE (optional)			
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO OF ANALYSES	a. CONCEN-TRATION	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	
a. Biochemical Oxygen Demand (BOD)	12	720					1	mg/l	lbs/d			
b. Chemical Oxygen Demand (COD)	47.2	2830					1	mg/l	lbs/d			
c. Total Organic Carbon (TOC)	58	3500					1	mg/l	lbs/d			
d. Total Suspended Solids (TSS)	144	8640	47.4	2510	35.8		1/4/13	mg/l	lbs/d			
e. Ammonia (as N)	0.1	6					1	mg/l	lbs/d			
f. Flow	VALUE 7,200,000		VALUE 6,360,000		VALUE 4,550,000		1/31/92	NA	gal/d	VALUE		
g. Temperature (winter)	VALUE 15.6		VALUE 66		VALUE 66		1/31/92		°C	VALUE		
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE				°C	VALUE		
i. pH	MINIMUM 8.50	MAXIMUM 8.59	MINIMUM 7.6	MAXIMUM 8.95	X		8/92	STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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. CONCEN-TRATION	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	
a. Bromide (24959-67-9)		X												
b. Chlorine Total Residual	X		0.0						4	mg/l	lbs/d			
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		1.3	78					1	mg/l	lbs/d			
f. Nitrate-Nitrite (as N)		X												



CONTINUED FROM FRONT

1. POLLUT- ANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIEVED PHE- SENT	b. BE LIEVED AB- SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL- YSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		3.3	200	1.5	80	1.4	53	1/4/ 13	mg/l	lbs/d			
i Phosphorus (as P) Total (7723-14-0)	X		1.8	110					1	mg/l	lbs/d			
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		930	55800					1	mg/l	lbs/d			
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14765-45-3)		X	< 2	< 100					1	mg/l	lbs/d			
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		0.8	50					1	mg/l	lbs/d			
p Barium Total (7440-39-3)	X		0.3	20					1	mg/l	lbs/d			
q Boron Total (7440-42-8)		X												
r Cobalt Total (7440-48-4)		X												
s Iron Total (7439-89-6)	X		3.99	240					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		95.2	5710					1	mg/l	lbs/d			
u Molybdenum total (7439-98-7)		X												
y Manganese Total (7439-96-5)	X		0.26	16					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 6					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												

**Form C \*\*Clarifier Blowdown Supernatant**  
**TABLE I for 3.00 Item A & B**

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

OUTFALL NO.  
**003\*\***

**INTAKE AND EFFLUENT CHARACTERISTICS** (continued from page 3 of Form 2-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						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a. Biochemical Oxygen Demand (BOD)	13	36					1	mg/l	lbs/d	6		1
b. Chemical Oxygen Demand (COD)	67.6	186					1	mg/l	lbs/d	16		1
c. Total Organic Carbon (TOC)	96	264					1	mg/l	lbs/d	46		1
d. Total Suspended Solids (TSS)	8	20					2	mg/l	lbs/d	53		1
e. Ammonia (as N)	2.1	5.8					1	mg/l	lbs/d	0.1		1
f. Flow	VALUE 330,000* **		VALUE		VALUE		1	NA	gal/d	VALUE		1
g. Temperature (winter)	VALUE 11.4		VALUE		VALUE				°C	VALUE		
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE		NA		°C	VALUE		NA
i. pH	MINIMUM 7.75	MAXIMUM 7.97	MINIMUM	MAXIMUM	X			STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIEVED PRE SENT	b. BE LIEVED AB SENT	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	
a. Bromide (24959-67-9)		X												
b. Chlorine Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X							mg/l		0.44		1	
f. Nitrate-Nitrite (as N)		X							mg/l		0.9		1	

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		86 *	240					1	mg/l		4.7		1
r Phosphorus (as P) Total (7723-14-0)		X							1	mg/l		< 0.1		1
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)		X							1	mg/l		177		1
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X							1	mg/l		< 2		1
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		0.2	0.6					1	mg/l	lbs/d	0.4		1
p Barium Total (7440-39-3)	X		2.3	6.3					1	mg/l	lbs/d	0.1		1
q Boron Total (7440-42-8)		X								mg/l		0.5		1
r Cobalt Total (7440-48-4)		X								mg/l		< 0.01		1
s Iron Total (7439-89-6)	X		29.0	79.8					1	mg/l	lbs/d	0.83		1
t Magnesium Total (7439-95-4)	X		115	316					1	mg/l	lbs/d	27.5		1
u Molybdenum total (7439-98-7)		X										< 0.01		1
y Manganese Total (7439-96-5)	X		53.9	148					1	mg/l	lbs/d	0.13		1
w Tin Total (7440-31-5)	X		< 0.1	< 0.3					1	mg/l	lbs/d	< 0.1		1
x Titanium Total (7440-32-6)		X												

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

INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)											OUTFALL NO.	
											003*	
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.												
I. POLLUTANT	2. EFFLUENT						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a. Biochemical Oxygen Demand (BOD)	12	33					1	mg/l	lbs/d	6		1
b. Chemical Oxygen Demand (COD)	64.4	177					1	mg/l	lbs/d	16		1
c. Total Organic Carbon (TOC)	55	150					1	mg/l	lbs/d	46		1
d. Total Suspended Solids (TSS)	60400	166,000					2	mg/l	lbs/d	53		1
e. Ammonia (as N)	1.4	3.9					1	mg/l	lbs/d	0.1		1
f. Flow	VALUE 330,000**		VALUE		VALUE		NA	NA	gal/d	VALUE		1
g. Temperature (winter)	VALUE 11.4		VALUE		VALUE		1	°C		VALUE		1
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE			°C		VALUE		NA
i. pH	MINIMUM 7.75	MAXIMUM 7.97	MINIMUM	MAXIMUM	X			STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.														
I. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LISTED Ppt	b. BE LISTED AS SNT	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	
a. Bromide (24559-67-9)		X												
b. Chlorine Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X								mg/l		0.44		1
f. Nitrate-Nitrite (as N)		X								mg/l		0.9		1

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		29*	80					1	mg/l	lbs/d	4.7		1
i Phosphorus (as P) Total (7723-14-0)		X								mg/l		0.1		1
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)		X							1	mg/l	lbs/d	177		1
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X							1	mg/l	lbs/d	< 2		1
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		15.2	41.8					1	mg/l	lbs/d	0.4		1
p Barium Total (7440-39-3)	X		1.5	4.1					1	mg/l	lbs/d	0.1		1
q Boron Total (7440-42-8)		X							1	mg/l	lbs/d	0.5		1
r Cobalt Total (7440-48-4)		X							1	mg/l	lbs/d	< 0.01		1
s Iron Total (7439-89-6)	X		23.2	63.8					1	mg/l	lbs/d	0.83		1
t Magnesium Total (7439-95-4)	X		123	338					1	mg/l	lbs/d	27.5		1
u Molybdenum total (7439-98-7)		X							1	mg/l	lbs/d	< 0.01		1
y Manganese Total (7439-96-5)	X		52.8	145					1	mg/l	lbs/d	0.13		1
w Tin Total (7440-31-5)	X		< 0.1	< 0.3					1	mg/l	lbs/d	< 0.1		1
x Titanium Total (7440-32-6)		X												

Form C

TABLE I for 3.00 Item A & B

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

OUTFALL NO.  
004

INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-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						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a Biochemical Oxygen Demand (BOD)	7	4					1	mg/l	lbs/d			
b Chemical Oxygen Demand (COD)	14	8.9					1	mg/l	lbs/d			
c Total Organic Carbon (TOC)	47	30					1	mg/l	lbs/d			
d Total Suspended Solids (TSS)	17	11					1	mg/l	lbs/d			
e Ammonia (as N)	<0.1	<0.06					1	mg/l	lbs/d			
f Flow	VALUE 76000		VALUE		VALUE		1	NA	gal/d	VALUE		
g Temperature (winter)	VALUE 20.2		VALUE		VALUE		1	°C		VALUE		
h Temperature (summer)	VALUE NA		VALUE		VALUE			°C		VALUE		
i pH	MINIMUM 8.15	MAXIMUM same	MINIMUM	MAXIMUM	X		1	STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
a Bromide (24959 67 9)		X												
b Chlorine Total Residual		X												
c Color		X												
d Fecal Coliform		X												
e Fluoride (16984 48 8)	X		1.6	1.0					1	mg/l	lbs/d <sup>1</sup>			
f Nitrate-Nitrite (as N)	X		1.0	0.63					1	mg/l	lbs/d			

CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIQUID PRE-SENT	b. BE LIQUID AB-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL-YSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		6.0	3.8					1	mg/l	lbs/d			
i Phosphorus (as P) Total (7723-14-0)		X												
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		1790	1134					1	mg/l	lbs/d			
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X		< 2	< 1					1	mg/l	lbs/d			
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		0.2	0.1					1	mg/l	lbs/d			
p Barium Total (7440-39-3)	X		< 0.1	< 0.06					1	mg/l	lbs/d			
q Boron Total (7440-42-9)		X												
r Cobalt Total (7440-48-4)		X												
s Iron Total (7439-89-6)	X		1.06	0.672					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		104	65.9					1	mg/l	lbs/d			
u Molybdenum total (7439-98-7)		X												
y Manganese Total (7439-96-5)	X		0.02	0.01					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 0.06					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												

Form C

TABLE I for 3.00 Item A & B

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

OUTFALL NO.  
005

INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-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						3. UNITS (specify if blank)	4. INTAKE (optional)			
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)			d. NO. OF ANALYSES	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	
a. Biochemical Oxygen Demand (BOD)	10	3.8					1	mg/l	lbs/d		
b. Chemical Oxygen Demand (COD)	60.7	23.3					1	mg/l	lbs/d		
c. Total Organic Carbon (TOC)	41	16					1	mg/l	lbs/d		
d. Total Suspended Solids (TSS)	21	8.1	11.3	2.54	8.5	2.3	1,1,3	mg/l	lbs/d		
e. Ammonia (as N)	0.2	0.08					1	mg/l	lbs/d		
f. Flow	VALUE 46000*		VALUE 45000		VALUE 33000		1,5,13	NA	gal/d	VALUE	
g. Temperature (winter)	VALUE 20.2		VALUE		VALUE		1	°C		VALUE	
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE			°C		VALUE	
i. pH	MINIMUM 8.15	MAXIMUM same	MINIMUM 8.05	MAXIMUM 8.68	X			STANDARD UNITS		X	

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. IF LISTED ON SENT	b. IF LISTED AS SENT	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	
a. Bromide (24959-67-9)		X												
b. Chlorine Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.64	0.25					1	mg/l	lbs/d <sup>1</sup>			
f. Nitrate-Nitrite (as N)	X		1.63	2.66					1	mg/l	lbs/d			



1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIKED PRESENT	b. BE LIKED 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	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		3.0	1.2	7.2	1.6	5.1	1.4	1,1,3	mg/l	lbs/d			
i Phosphorus (as P) Total (7723-14-0)	X		0.4	0.2					1	mg/l	lbs/d			
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-29-8)	X		360	138					1	mg/l	lbs/d			
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X		< 2	< 0.8					1	mg/l	lbs/d			
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		15.2	5.38					1	mg/l	lbs/d			
p Barium Total (7440-39-3)	X		0.2	0.08					1	mg/l	lbs/d			
q Boron Total (7440-42-8)	X		0.2	0.08					1	mg/l	lbs/d			
r Cobalt Total (7440-48-4)		X												
s Iron Total (7439-89-6)	X		5.60	2.15					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		47.4	18.2					1	mg/l	lbs/d			
u Molybdenum total (7439-98-7)	X		< 0.01	< 0.004					1	mg/l	lbs/d			
y Manganese Total (7439-96-5)	X		0.16	0.061					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 0.04					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												

## Form C

## TABLE I for 3.00 Item A &amp; B

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

OUTFALL NO.  
007

## INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-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						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a. Biochemical Oxygen Demand (BOD)	8	2					1	mg/l	lbs/d			
b. Chemical Oxygen Demand (COD)	33.4	9.62					1	mg/l	lbs/d			
c. Total Organic Carbon (TOC)	19	5.5					1	mg/l	lbs/d			
d. Total Suspended Solids (TSS)	24	6.9	27.6	4.37	11.5	2.2	1,1,3	mg/l	lbs/d			
e. Ammonia (as N)	< 0.1	< 0.03					1	mg/l	lbs/d			
f. Flow	VALUE 34560		VALUE 35000		VALUE 23000		1,4,13	NA	gal/d	VALUE		
g. Temperature (winter)	VALUE 13.6-16.5		VALUE		VALUE		7		°C	VALUE		
h. Temperature (summer)	VALUE N.A.		VALUE		VALUE				°C	VALUE		
i. pH	MINIMUM 6.84	MAXIMUM 7.06	MINIMUM	MAXIMUM	X			STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
a. Bromide (24959-67-9)		X												
b. Chlorine Total Residual		X												
c. Color		X												
d. Fecal Coliform	X		150	N.A.					4	col/ml	NA			
e. Fluoride (16984-48-8)	X		0.80	0.23					1	mg/l	lbs/d			
f. Nitrate-Nitrite (as N)	X		40	12					1	mg/l	lbs/d			

CONTINUED FROM FRONT

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
g. Nitrogen Total Organic (as N)	X		0.7	0.2					1	mg/l	lbs/d			
h. Oil and Grease	X		5.0	1.4					1	mg/l	lbs/d			
i. Phosphorus (as P) Total (7723-14 0)	X		5.8	1.7					1	mg/l	lbs/d			
j. Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k. Sulfate (as SO <sub>4</sub> ) (14808-79 8)	X		130*	37.1					1	mg/l	lbs/d			
l. Sulfide (as S)		X												
m. Sulfite (as SO <sub>3</sub> ) (14265-45 3)		X												
n. Surfactants	X		< 0.1	< 0.03					1	mg/l	lbs/d			
o. Aluminum Total (7429-90 5)	X		0.2	0.06					1	mg/l	lbs/d			
p. Barium Total (7440-39 3)	X		< 0.1	< 0.03					1	mg/l	lbs/d			
q. Boron Total (7440-42 8)	X		0.5	0.1					1	mg/l	lbs/d			
r. Cobalt Total (7440-48 4)		X												
s. Iron Total (7439-89 6)	X		0.10	0.03					1	mg/l	lbs/d			
t. Magnesium Total (7439-95 4)	X		41.6	12.0					1	mg/l	lbs/d			
u. Molybdenum total (7439-98 7)		X												
y. Manganese Total (7439-96 5)	X		< 0.01	< 0.003					1	mg/l	lbs/d			
w. Tin Total (7440-31 5)	X		< 0.1	< 0.03					1	mg/l	lbs/d			
x. Titanium Total (7440-32 6)		X												

**Form C**  
**TABLE I for 3.00 Item A & B**

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

OUTFALL NO.  
008

**INTAKE AND EFFLUENT CHARACTERISTICS** (continued from page 3 of Form 2-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						d. NO OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)			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	
a. Biochemical Oxygen Demand (BOD)	6	0.025					1	mg/l	lbs/d			
b. Chemical Oxygen Demand (COD)	17.8	0.0742					1	mg/l	lbs/d			
c. Total Organic Carbon (TOC)	38	0.16					1	mg/l	lbs/d			
d. Total Suspended Solids (TSS)	43	0.18	1.7	0.0071	1.3	0.0054	1,2,3	mg/l	lbs/d			
e. Ammonia (as N)	0.2	0.0008					1	mg/l	lbs/d			
f. Flow	VALUE 500*		VALUE 500*		VALUE 500*		*			VALUE		
g. Temperature (winter)	VALUE 18.2		VALUE		VALUE		1		°C	VALUE		
h. Temperature (summer)	VALUE NA		VALUE		VALUE				°C	VALUE		
i. pH	MINIMUM 8.17	MAXIMUM Same	MINIMUM 7.86	MAXIMUM 8.03	X		1,3	STANDARD UNITS		X		

**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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. IS LIQUID PHS SENT	b. IS LIQUID AS SENT	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	
a. Bromide (24959-67-9)		X												
b. Chlorine Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.44	0.0018					1	mg/l	lbs/d <sup>1</sup>			
f. Nitrate - Nitrite (as N)		X												

CONTINUED FROM FRONT

1. POLLUT- ANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIEVED PBL SENT	b. BE LIEVED AB SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL- YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g Nitrogen Total Organic (as N)		X												
b. Oil and Grease	X		3.6	0.015	1.2	0.0050	0.85	0.0035	1/2/3	mg/l	lbs/d			
i Phosphorus (as P) Total (7723-14-0)		X												
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		180	0.751					1	mg/l	lbs/d			
l Sulfide (as S)		X												
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X		< 2	< 0.008					1	mg/l	lbs/d			
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		0.6	0.003					1	mg/l	lbs/d			
p Barium Total (7440-39-3)	X		< 0.1	< 0.0004					1	mg/l	lbs/d			
q Boron Total (7440-42-8)		X												
r Cobalt Total (7440-48-4)		X												
s Iron Total (7439-89-6)	X		4.22	0.0176					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		19.7	0.0821					1	mg/l	lbs/d			
u Molybdenum total (7439-98-7)		X												
y Manganese Total (7439-96-5)	X		0.11	0.00046					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 0.0004					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												

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

OUTFALL NO.  
009

INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-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						3. UNITS (specify if blank)		4. INTAKE (optional)			
	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	
a. Biochemical Oxygen Demand (BOD)	10	0.08					1	mg/l	lbs/d			
b. Chemical Oxygen Demand (COD)	59	0.49					1	mg/l	lbs/d			
c. Total Organic Carbon (TOC)	30	0.25					1	mg/l	lbs/d			
d. Total Suspended Solids (TSS)	12	0.10					1	mg/l	lbs/d			
e. Ammonia (as N)	18	0.15					1	mg/l	lbs/d			
f. Flow	VALUE 6000*		VALUE		VALUE		NA	NA	gal/d	VALUE		
g. Temperature (winter)	VALUE No Data		VALUE		VALUE				°C	VALUE		
h. Temperature (summer)	VALUE NA		VALUE		VALUE				°C	VALUE		
i. pH	MINIMUM	MAXIMUM 9.74**	MINIMUM	MAXIMUM	X			STANDARD UNITS		X		

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 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. 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	
a. Bromide (24259-67-9)		X												
b. Chlorine Total Residual	X		0.0						1	mg/l	lbs/d			
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		0.13	0.0011					1	mg/l	lbs/d			
f. Nitrate-Nitrite (as N)		X												

1. POLLUTANT AND GAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE LIEVED PRE- SENT	b. BE LIEVED AS SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL- YSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g Nitrogen Total Organic (as N)		X												
b Oil and Grease	X		2.9	0.15					1	mg/l	lbs/d			
h Phosphorus (as P) Total (7723-14-0)		X												
j Radioactivity														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												
k Sulfate (as SO <sub>4</sub> ) (14808-79-8)	X		1590	79.6					1	mg/l	lbs/d			
l Sulfide (as S)	X		4.7	0.23					1	mg/l	lbs/d			
m Sulfite (as SO <sub>3</sub> ) (14265-45-3)	X		54.5	2.72					1	mg/l	lbs/d			
n Surfactants		X												
o Aluminum Total (7429-90-5)	X		0.3	0.018					1	mg/l	lbs/d			
p Barium Total (7440-39-3)		X												
q Boron Total (7440-42-8)		X												
r Cobalt Total (7440-48-4)		X												
s Iron Total (7439-89-6)	X		0.11	0.00092					1	mg/l	lbs/d			
t Magnesium Total (7439-95-4)	X		0.2	0.002					1	mg/l	lbs/d			
u Molybdenum total (7439-96-7)		X												
y Manganese Total (7439-96-5)	X		0.02	0.0002					1	mg/l	lbs/d			
w Tin Total (7440-31-5)	X		< 0.1	< 0.0008					1	mg/l	lbs/d			
x Titanium Total (7440-32-6)		X												



FOR AGENCY USE ONLY  
APPLICATION NUMBER  
MO -  
DATE RECEIVED

FORM D - APPLICATION FOR DISCHARGE PERMIT - PRIMARY INDUSTRIES

DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

MISSOURI DEPARTMENT OF NATURAL RESOURCES - DIVISION OF ENVIRONMENTAL QUALITY  
P. O. Box 1368  
Jefferson City, Missouri 65102

- 1.00 NAME OF FACILITY Callaway Power Plant
- 1.10 This facility is now in operation under Missouri Operating Permit Number MO-0098001
- 1.20 This is a new facility and was constructed under Missouri Construction Permit Number \_\_\_\_\_ . (Complete only if this facility does not have an operating permit).

This form is to be filled out in addition to forms A & C "Application for Discharge Permit" for the Primary Industries listed below:

INDUSTRY CATEGORY

Adhesives and sealants	Ore mining
Aluminum forming	Organic chemicals manufacturing
Auto and other laundries	Paint and ink formulation
Battery manufacturing	Pesticides
Coal mining	Petroleum refining
Coil coating	Pharmaceutical preparations
Copper forming	Photographic equipment and supplies
Electric and electronic compounds	Plastic & synthetic materials manufacturing
Electroplating	Plastic processing
Explosives manufacturing	Porcelain enameling
Foundries	Printing and publishing
Gum and wood chemicals	Pulp and paperboard mills
Inorganic chemicals manufacturing	Rubber processing
Iron and steel manufacturing	Soap and detergent manufacturing
Leather tanning and finishing	Steam electric power plants
Mechanical products manufacturing	Textile mills
Nonferrous metals manufacturing	Timber products processing



**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

NPDES # (If Assigned)  
MO-0098001

TABLE II

OUTFALL NUMBER  
001

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE <i>(optional)</i>		
	a. TESTING REQUIRED	b. BE LIKED PRESENT	c. BE LIKED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE <i>(if available)</i>		c. LONG TERM AVRG. VALUE <i>(if available)</i>		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	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-0)	X			.05	.03					1	mg/l	lbs/d			
2M Arsenic Total (7440-38-2)	X			<.01	<.007					1	mg/l	lbs/d			
3M Beryllium Total (7440-41-7)	X			<.001	<.0007					1	mg/l	lbs/d			
4M Cadmium Total (7440-43-9)	X			.009	.006					1	mg/l	lbs/d			
5M Chromium Total (7440-47-3)	X			<.01	<.007					1	mg/l	lbs/d			
6M Copper Total (7550-50-8)	X			.80	.53					1	mg/l	lbs/d			
7M Lead Total (7439-97-6)	X			.01	.007					1	mg/l	lbs/d			
8M Mercury Total (7439-97-6)	X			<.0004	<.0003					1	mg/l	lbs/d			
9M Nickel Total (7440-02-0)	X			.4	.3					1	mg/l	lbs/d			
10M Selenium Total (7782-49-2)	X			.02	.01					1	mg/l	lbs/d			
11M Silver Total (7440-22-4)	X			.06	.04					1	mg/l	lbs/d			
12M Thallium Total (7440-28-0)	X			.03	.02					1	mg/l	lbs/d			
13M Zinc Total (7440-66-6)	X			<.1	<.07					1	mg/l	lbs/d			
14M Cyanide Total (57-19-6)	X			<.1	<.07					1	mg/l	lbs/d			
15M Phenols Total	X			<.001	<.0007					1	mg/l	lbs/d			
<b>DIOXIN</b>															
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		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	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>															
1V Acrolein (107-02-8)	X			< 7.5	< .0050					1	ug/l	lbs/d			
2V Acrylonitrile (107-13-1)	X			< 5.2	< .0034					1	ug/l	lbs/d			
3V Benzene (71-43-2)	X			< 4.4	< .0029					1	ug/l	lbs/d			
4V Bis (Chloromethyl) Ether (542-88-1)	X			< 5.8	< .0038					1	ug/l	lbs/d			
5V Bromoform (75-25-2)	X			< 4.7	< .0031					1	ug/l	lbs/d			
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	< .0019					1	ug/l	lbs/d			
7V Chlorobenzene (108-90-7)	X			< 6.0	< .0040					1	ug/l	lbs/d			
8V Chlorobromomethane (124-48-1)	X			< 3.1	< .0021					1	ug/l	lbs/d			
9V Chloroethane (75-00-3)	X			< 8.2	< .0054					1	ug/l	lbs/d			
10V 2-Chloroethylvinyl Ether (110-75-8)	X			< 2.6	< .0017					1	ug/l	lbs/d			
11V Chloroform (67-66-3)	X			< 1.6	< .0011					1	ug/l	lbs/d			
12V Dichlorobromomethane (75-27-4)	X			< 2.2	< .0015					1	ug/l	lbs/d			
13V Dichlorodifluoromethane (75-71-8)	X			< 5.0	< .0033					1	ug/l	lbs/d			
14V 1,1-Dichloroethane (75-35-3)	X			< 4.7	< .0031					1	ug/l	lbs/d			
15V 1,2-Dichloroethane (107-06-2)	X			< 2.8	< .0019					1	ug/l	lbs/d			
16V 1,1-Dichloroethylene (75-35-4)	X			< 2.8	< .0019					1	ug/l	lbs/d			
17V 1,2-Dichloropropane (78-87-5)	X			< 6.0	< .0040					1	ug/l	lbs/d			
18V 1,2-Dichloroproylene (542-75-6)	X			< 4.0	< .0026					1	ug/l	lbs/d			
19V Ethylbenzene (100-41-4)	X			< 7.2	< .0048					1	ug/l	lbs/d			
20V Methyl Bromide (74-83-9)	X			< 1.2	< .00079					1	ug/l	lbs/d			
21V Methyl Chloride (74-87-3)	X			< 1.0	< .00066					1	ug/l	lbs/d			

NPDES # (if assigned) **MO-0098001**      **001**      **001**  
 EFFLUENT      OUTFALL NUMBER

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	TEST METHOD REQUIRED	USE PRESENT	MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	LONG TERM AVG VALUE (if available) (1) CONCENTRATION (2) MASS	CONCENTRATION	MASS	LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	NO. OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>								
22V Methylene Chloride (75-08-2)	X		< 2.8	< 0.0019		lbs/d		
23V 1,1,2,2-Tetrachloroethane (79-34-5)	X		< 6.9	< 0.0046		lbs/d		
24V Tetrachloroethylene (127-18-4)	X		< 4.1	< 0.0027		lbs/d		
25V Toluene (108-88-3)	X		< 6.0	< 0.0040		lbs/d		
26V 1,3-Dichlorobenzene (106-46-5)	X		< 1.6	< 0.0011		lbs/d		
27V 1,1,1-Trichloroethane (71-55-6)	X		< 3.8	< 0.0025		lbs/d		
28V 1,1,2-Trichloroethane (78-07-3)	X		< 5.0	< 0.0033		lbs/d		
29V Trichloroethylene (79-01-6)	X		< 1.9	< 0.0013		lbs/d		
30V Trichlorofluoromethane (75-69-4)	X		< 6.5	< 0.0043		lbs/d		
31V Vinyl Chloride (75-01-4)	X		< 1.3	< 0.00086		lbs/d		
<b>GC/MS FRACTION - ACID COMPOUNDS</b>								
1A 2-Chlorophenol (95-57-8)	X		< 3.3	< 0.0022		lbs/d		
2A 2,4-Dichlorophenol (120-83-2)	X		< 2.7	< 0.0018		lbs/d		
3A 2,4-Dimethylphenol (105-67-9)	X		< 2.7	< 0.0018		lbs/d		
4A 4,6-Dinitro-Cresol (254-52-1)	X		< 24	< 0.016		lbs/d		
5A 2,4-Dinitrophenol (51-28-5)	X		< 42	< 0.028		lbs/d		
6A 2-Nitrophenol (88-75-3)	X		< 3.6	< 0.0024		lbs/d		
7A 4-Cresol (105-02-7)	X		< 2.4	< 0.0016		lbs/d		
8A p-Chloro-Cresol (95-50-7)	X		< 3.0	< 0.0020		lbs/d		
9A Pentachlorophenol (87-86-3)	X		< 3.6	< 0.0024		lbs/d		
10A Phenol (105-05-1)	X		< 1.5	< 0.00099		lbs/d		
11A 2,4,6-Trichlorophenol (88-06-2)	X		< 2.7	< 0.0018		lbs/d		

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		D. NO. OF ANAL. YSES	
	A. TEST INC. REQUIR. EQ.	B. BE. LIVED SERT.	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)	A. CONCENTRATION	B. MASS	A. LONG TERM AVERAGE VALUE		B. NO. OF ANAL. YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
<b>GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS</b>												
1B Acenaphthene (85-32-9)												
2B Acenaphthylene (208-96-8)		X										
3B Anthracene (120-12-7)		X										
4B Benzidine (90-87-5)		X										
5B Benzo (a) Anthracene (56-55-3)		X										
6B Benzo (a) Pyrene (50-32-8)		X										
7B 3,4-Benzofluoranthene (205-99-2)		X										
8B Benzo (ghi) Perylene (191-24-2)		X										
9B Benzo (k) Fluoranthene (207-68-9)		X										
10B Bis (2-Chloroethoxy) Methane (1111-91-1)		X										
11B Bis (2-Chloroethyl) Ether (1111-44-4)		X										
12B Bis (2-Chloroisopropoxy) Ether (35638-32-9)		X										
13B Bis (2-Ethylhexyl) Phthalate (1117-81-7)		X										
14B 4-Bromophenyl Phenyl Ether (101-55-3)		X										
15B Butyl Benzyl Phthalate (85-68-7)		X										
16B 2-Chloronaphthalene (51-56-7)		X										
17B 4-Chlorophenyl Phenyl Ether (1005-72-3)		X										
18 3-Chryseno (218-81-8)		X										
19B Dibenzo (a,h) Anthracene (53-70-3)		X										
20B 1,2-Dichlorobenzene (95-50-1)		X										
21B 1,3-Dichlorobenzene (541-73-1)		X										

NPDES # (if Assigned) MO-0098001  
 OUTFALL NUMBER 001

CONTINUED FROM PAGE 5

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b. NO. OF ANALYSES	
	a. TEST METHOD	b. NO. OF SAMPLES	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (3) CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION		(2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
228 1,4-Dichlorobenzene (106-46-7)		X								
238 3,3'-Dichlorobenzidine (81-94-1)		X								
246 Diethyl Phthalate (84-66-7)		X								
258 Dimethyl Phthalate (133-11-3)		X								
268 Di-N-Butyl Phthalate (84-74-2)		X								
278 2,4-Dinitrotoluene (121-14-2)		X								
288 2,6-Dinitrotoluene (86-26-2)		X								
298 Di-N-Octyl Phthalate (117-84-0)		X								
308 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)		X								
318 Fluoranthene (206-44-0)		X								
328 Fluorene (86-73-7)		X								
338 Hexachlorobenzene (118-71-1)		X								
348 Hexachlorobutadiene (87-68-3)		X								
358 Hexachlorocyclopentadiene (77-47-4)		X								
368 Hexachloroethane (67-72-1)		X								
378 Indeno (1,2,3-c,d) Pyrene (193-39-5)		X								
388 Isophorone (78-59-1)		X								
388 Naphthalene (91-20-3)		X								
408 Nitrobenzene (98-95-3)		X								
418 N-Nitrosodimethylamine (62-75-9)		X								
428 N-Nitrosodimethylamine (62-75-9)		X								

CONTINUE ON REVERSE

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CONTINUED FROM THE FRONT

1. POLLUTANT NUMBER (if available)	2. MARX 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
	4. TEST AND ANALYSIS	5. BE. CONC. UNIT	6. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	7. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	8. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION (2) MASS	9. CONCENTRATION	10. MASS	11. CANCER RATION	12. LONG TERM AVERAGE VALUE (1) MASS (2) MASS	13. NO. OF ANAL. YSES	14. NO. OF ANAL. YSES	
<b>GC/MS FRACTION -- BASE/NEURAL COMPOUNDS (continued)</b>												
438 N-Nitro-methylglutamine (86-30-6)		X										
448 Phenanthrene (85-01-8)		X										
458 Pyrene (129-00-0)		X										
508 1,2,4-Trichlorobenzene (129-62-1)		X										
<b>GC/MS FRACTION -- PESTICIDES</b>												
1P Ailin (309-00-2)		X										
2P α-BHC (319-84-6)		X										
3P β-BHC (319-65-7)		X										
4P γ-BHC (58-89-9)		X										
5P δ-BHC (319-86-8)		X										
6P Chlordane (57-74-9)		X										
7P 4,4'-DDE (50-29-3)		X										
8P 4,4'-DDE (72-55-9)		X										
9P 4,4'-DDD (72-54-8)		X										
10P Dieldrin (66-57-1)		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 (7421-33-4)		X										
16P Heptachlor (78-44-8)		X										

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NPDES # (if assigned) **MO-0098001** **001**  
 EFFLUENT **001**  
 OUTFALL NUMBER

CONTINUED FROM PAGE 7

1. POLLUTANT NUMBER (available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. TEST NO.	b. BE CODES	a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE	b. NO. OF ANALYSES	
	(1)	(2)	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
<b>6C/MS FRACTION — PESTICIDES (continued)</b>									
1P Heptachlor E-4-28 134-57-3		X							
1P PCB 1242 5489-21-9		X							
1P PCB 1254 1187-69-11		X							
2P PCB 1221 11134-28-2		X							
2P PCB 1232 11131-18-5		X							
2P PCB 1248 1522-29-6		X							
2P PCB 1260 1136-82-5		X							
2P PCB 1016 12634-11-2		X							
2P Toxaphene 8001-35-2		X							

**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

\*These values are for the dissolved form of the metal as regulated in our current permit.

TABLE II
NPDES # (If Assigned) <b>MO-0098001</b>
OUTFALL NUMBER <b>002</b>

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK 'X'			3. EFFLUENT				4. UNITS			5. INTAKE <i>(optional)</i>				
	a. TEST-ING REQUIRED	b. GC-LEVELS PRESENT	c. RE-LEVELS ASSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE <i>(if available)</i>		c. LONG TERM AVRG. VALUE <i>(if available)</i>		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	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-0)			X												
2M Arsenic Total (7440-38-2)			X												
3M Beryllium Total (7440-41-7)			X												
4M Cadmium Total (7440-43-9)			X												
5M Chromium Total (7440-47-3)	X			<.01	<.6					1	mg/l	lbs/d			
6M Copper Total (7550-50-8)	X			.41	25	0.41*	20 *	0.34*	13 *	1/1/3	mg/l	lbs/d			
7M Lead Total (7439-97-6)			X												
8M Mercury Total (7439-97-6)			X												
9M Nickel Total (7440-02-0)	X			<.01	<.6	0.1*	5*	0.04*	2*	1/1/3	mg/l	lbs/d			
10M Selenium Total (7782-49-2)			X												
11M Silver Total (7440-22-4)			X												
12M Thallium Total (7440-28-0)			X												
13M Zinc Total (7440-66-6)			X												
14M Cyanide Total (57-12-5)			X												
15M Phenols Total			X												
<b>DIOXIN</b>															
2,3,7,8 - Tetrachlorodibenzo-P-Dioxin (1784-01-6)			X	DESCRIBE RESULTS											



CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)		
	A. LIST NO. IN (1)	B. LIST NO. IN (2)	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	B. MAXIMUM 30 DAY VALUE (2) MASS	C. LONG TERM AVRG. VALUE (3) CONCENTRATION	D. NO. OF ANAL. YSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION	B. MASS	D. NO. OF ANAL. YSES
<b>GC/MS FRACTION — VOLATILE COMPOUNDS</b>											
1V Acrylonitrile (107-02-8)		X									
2V Acrylonitrile (107-13-1)		X									
3V Benzene (71-43-2)		X									
4V Bis-Chloro-methyl Ether (540-88-1)		X									
5V Bromoform (75-25-2)		X									
6V Carbon Tetrachloride (50-23-5)		X									
7V Chlorobenzene (108-90-7)		X									
8V Chloro-bromomethane (124-48-1)		X									
9V Chloroethane (75-00-3)		X									
10V 2-Chloro-ethyl Ethyl Ether (116-75-8)		X									
11V Chloroform (67-66-3)	X		4.1								
12V Dichloro-bromomethane (75-27-4)		X									
13V Dichloro-difluoromethane (75-71-8)		X									
14V 1,1-Dichloro-ethane (78-06-2)		X									
15V 1,2-Dichloro-ethane (107-06-2)		X									
16V 1,1-Dichloro-ethylene (75-35-4)		X									
17V 1,2-Dichloro-propane (78-87-5)		X									
18V 1,2-Dichloro-propane (542-75-6)		X									
19V Ethylbenzene (100-41-4)		X									
20V Methyl Bromide (74-83-9)		X									
21V Methyl Chloride (74-87-3)		X									

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

1. POLLUTANT AND GAS NUMBER (if available)	2. MASS %		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	a. TEST NO.	b. TEST RESULT	c. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	d. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	e. LONG TERM AVG VALUE (1) CONCENTRATION (2) MASS	f. NO. OF ANAL. YSES	g. CONCENTRATION	h. MASS	i. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	j. NO. OF ANAL. YSES
<b>6C/MS FRACTION -- VOLATILE COMPOUNDS (continued)</b>										
25V METHYLENE Chloride (75-29-2)		X								
25V 1,1,2,2-Tetra-chloroethane (79-24-5)		X								
26V Tetrachloro-ethylene (27-18-4)		X								
25V Toluene (108-88-3)		X								
26V 1,2-Dichloro-Cyclohexane (108-85-9)		X								
27V 1,1,1-Tris-chloroethane (71-55-8)		X								
28V 1,1,2-Tris-chloroethane (78-20-3)		X								
29V Trichloro-ethylene (79-01-6)		X								
30V Trichloro-ethylene (75-28-8)		X								
31V Vinyl Chloride (75-01-4)		X								
<b>6C/MS FRACTION -- ACID COMPOUNDS</b>										
1A 2-Chlorophenol (85-53-8)		X								
2A 2,4-Dichloro-phenol (106-83-2)		X								
3A 2,4-Dimethyl phenol (105-67-8)		X								
4A 4,6-Dinitro-Cresol (534-52-1)		X								
5A 2,4-Dinitro-phenol (81-28-8)		X								
6A 2,4,6-Trinitro-phenol (85-73-8)		X								
7A 4-Ethylphenol (100-02-7)		X								
8A P-Chloro-Cresol (95-50-7)		X								
9A p-Toluenesulfonyl chloride (95-53-4)		X								
10A Phenol (108-95-2)		X								
11A 2,4,6-Trinitrophenol (88-26-2)		X								

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. TEST METHOD IS	B. RE-TESTED PERCENT	C. RE-TESTED PERCENT	A. MAXIMUM DAILY VALUE		B. LONG TERM AVRG. VALUE (if available)		C. NO. OF ANAL. YSES	D. CONCENTRATION	E. MASS	A. LONG TERM AVERAGE VALUE		B. NO. OF ANAL. YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS													
16 Acenaphthene (83-32-9)			X										
26 Acenaphthylene (208-96-8)			X										
38 Anthracene (120-12-7)			X										
46 Benzidine (82-87-5)			X										
56 Benzo (a) Anthracene (56-55-3)			X										
68 Benzo (a) Pyrene (50-32-8)			X										
78 3,4-Benzofluoranthene (205-99-2)			X										
88 Benzo (ghi) Perylene (191-24-2)			X										
98 Benzo (k) Fluoranthene (207-08-9)			X										
108 Bis (2-Chloroethoxy) Methane (111-94-1)			X										
118 Bis (2-Chloroethyl) Ether (111-44-4)			X										
128 Bis (2-Chloroethyl) Ether (13638-32-9)			X										
138 Bis (2-Ethylhexyl) Phthalate (117-81-7)			X										
148 4-Bromo-phenyl Phenyl Ether (101-55-3)			X										
158 Butyl Benzyl Phthalate (85-61-7)			X										
168 2-Chloronaphthalene (91-58-7)			X										
178 4-Chloro-phenyl Phenyl Ether (1005-72-3)			X										
188 Chrysene (218-01-9)			X										
198 Dibenzo (a,h) Anthracene (53-70-3)			X										
208 1,2-Dichlorobenzene (95-50-1)			X										
218 1,3-Dichlorobenzene (541-73-1)			X										

NPDES # (If Assigned) MO-0098001  
 OUTFALL NUMBER 002

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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

4. UNITS

a. CONCENTRATION  
 b. MASS

5. INTAKE (optional)  
 a. LONG TERM AVERAGE VALUE  
 (1) CONCENTRATION (2) MASS  
 b. NO. OF ANALYSES

1. POLLUTANT NUMBER (if available)  
 GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)

2. MARK 'X'  
 a. TEST REQUIREMENT  
 b. M/LIVES PER SENT  
 c. BE LIVES AB SENT

1. POLLUTANT NUMBER (if available)	GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)	2. MARK 'X'			3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
		a. TEST REQUIREMENT	b. M/LIVES PER SENT	c. BE LIVES AB SENT	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	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANALYSES
258	1,4-Dichlorobenzene (106-46-7)			X							
258	3,3-Dichlorobenzidine (91-94-1)			X							
248	Diethyl Phthalate (84-66-2)			X							
258	Dimethyl Phthalate (131-11-3)			X							
268	D-N-Butyl Phthalate (84-74-2)			X							
278	2,4-Dinitrofluorene (123-14-2)			X							
288	2,6-Dinitrotoluene (68-20-2)			X							
298	D-N-Octyl Phthalate (117-84-0)			X							
308	1,2-Diphenylhydrazine (as AGP, benzene) (122-66-7)			X							
318	Fluoranthene (206-44-0)			X							
328	Fluorene (86-73-7)			X							
338	Hexachlorobenzene (118-71-1)			X							
348	Hexachlorobutadiene (87-68-3)			X							
358	Hexachlorocyclopentadiene (17-47-4)			X							
368	Hexachloroethane (67-72-1)			X							
378	Indene (1,2,3-c,d) Pyrene (193-39-5)			X							
388	Isophorone (78-59-1)			X							
398	Naphthalene (91-20-3)			X							
408	Nitrobenzene (98-95-3)			X							
418	N-Nitrosodimethylaniline (82-75-9)			X							
428	N-Nitrosodipropylamine (623-13-7)			X							

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. RE LIVED PRE-SILT	c. RE LIVED SUB-SILT	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	
<b>GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)</b>															
43B N Nitro sodiphenylamine (86-30-6)			X												
44B Phenanthrene (85-01-8)			X												
45B Pyrene (129-00-0)			X												
46B 1,2,4 - Tri- chlorobenzene (120-82-1)			X												
<b>GC/MS FRACTION — PESTICIDES</b>															
1P Aldrin (309-00-2)			X												
2P $\alpha$ -BHC (319-84-6)			X												
3P $\beta$ -BHC (319-85-7)			X												
4P $\gamma$ -BHC (58-89-9)			X												
5P $\delta$ -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 $\alpha$ -Endosulfan (115-29-7)			X												
12P $\beta$ -Endosulfan (115-29-7)			X												
13P Endosulfan Sulfate (1031-07-8)			X												
14P Endrin (72-26-8)			X												
15P Endrin Aldehyde (7421-93-4)			X												
16P Heptachlor (75-44-8)			X												

CONTINUED FROM PAGE 7

NPOES # (if assigned) MO-0098001  
OUTFALL NUMBER 002

1. POLLUTANT AND CAS NUMBER (available)	2. MARK 'X'		3. EFFLUENT			4. UNITS		5. INTAKE (optional)				
	a. TEST REQ'D (10)	b. BE LIVED PRE SENT	c. BE LIVED AS SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (3) CONCENTRATION	d. NO OF ANAL-YSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANAL-YSES
GC/MS FRACTION — PESTICIDES (continued)												
155 Neglathion E:1.4 de 5:23-57-3			X									
165 PCB 1242 5:09-21-9			X									
166 PCB 1254 5:09-69-1			X									
225 PCB 1224 5:13-28-2			X									
232 PCB 1232 5:11-16-5			X									
235 PCB 1248 5:07-29-6			X									
239 PCB 1260 5:06-82-5			X									
240 PCB 1016 5:14-11-2			X									
250 Toxaphene 8:01-35-2			X									

**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

\* Clarifier Blowdown Supernatant -  
See Attachment F

<b>TABLE II</b>	<b>OUTFALL NUMBER *</b>
NPDES # (If Assigned) MO-0098001	003

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven 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. BE LIKELY PRESENT	c. BE LIKELY ABSENT	d. MAXIMUM DAILY VALUE		e. MAXIMUM 30 DAY VALUE (if available)		f. LONG TERM AVG. VALUE (if available)		g. NO. OF ANALYSES	h. CONCENTRATION	i. MASS	j. LONG TERM AVERAGE VALUE		k. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-3)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
2M Arsenic Total (7440-36-2)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
3M Beryllium Total (7440-41-7)	X			<.001	<.003					1	mg/l	lbs/d	<.001		1
4M Cadmium Total (7440-43-9)	X			.009	.02					1	mg/l	lbs/d	<.001		1
5M Chromium Total (7440-47-3)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
6M Copper Total (7550-50-8)	X			.01	.03					1	mg/l	lbs/d	<.01		1
7M Lead Total (7439-97-8)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
8M Mercury Total (7439-97-6)	X			<.0004	<.001					1	mg/l	lbs/d	<.0004		1
9M Nickel Total (7440-02-0)	X			.1	.3					1	mg/l	lbs/d	<.1		1
10M Selenium Total (7782-49-2)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
11M Silver Total (7440-22-4)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
12M Thallium Total (7440-20-0)	X			<.01	<.03					1	mg/l	lbs/d	<.01		1
13M Zinc Total (7440-66-6)	X			<.1	<.3					1	mg/l	lbs/d	<.1		1
14M Cyanide Total (57-12-5)	X			.1	.3					1	mg/l	lbs/d	<.1		1
15M Phenols Total	X			<.001	<.003					1	mg/l	lbs/d	<.001		1
<b>DIOXIN</b>															
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'			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	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION — VOLATILE COMPOUNDS</b>															
1V Acrolein (107-02-8)	X			< 7.5	< .021					1	ug/l	lbs/d	< 7.5		1
2V Acrylonitrile (107-13-1)	X			< 5.2	< .014					1	ug/l	lbs/d	< 5.2		1
3V Benzene (71-43-2)	X			< 4.4	< .012					1	ug/l	lbs/d	< 4.4		1
4V Bis (Chloromethyl) Ether (542-88-1)	X			< 5.8	< .016					1	ug/l	lbs/d	< 5.8		1
5V Bromoform (75-25-2)	X			< 4.7	< .013					1	ug/l	lbs/d	< 4.7		1
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
7V Chlorobenzene (108-90-7)	X			< 6.0	< .017					1	ug/l	lbs/d	< 6.0		1
8V Chlorobromomethane (124-48-1)	X			< 3.1	< .0085					1	ug/l	lbs/d	< 3.1		1
9V Chloroethane (75-00-3)	X			< 8.2	< .023					1	ug/l	lbs/d	< 8.2		1
10V 2-Chloroethylvinyl Ether (110-75-8)	X			< 2.6	< .0072					1	ug/l	lbs/d	< 2.6		1
11V Chloroform (67-66-3)	X			< 1.6	< .0044					1	ug/l	lbs/d	< 1.6		1
12V Dichlorobromomethane (75-27-4)	X			< 2.2	< .0061					1	ug/l	lbs/d	< 2.2		1
13V Dichlorodifluoromethane (75-71-8)	X			< 5.0	< .014					1	ug/l	lbs/d	< 5.0		1
14V 1,1-Dichloroethane (75-34-3)	X			< 4.7	< .013					1	ug/l	lbs/d	< 4.7		1
15V 1,2-Dichloroethane (107-06-2)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
16V 1,1-Dichloroethylene (75-35-4)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
17V 1,2-Dichloropropane (78-87-5)	X			< 6.0	< .017					1	ug/l	lbs/d	< 6.0		1
18V 1,2-Dichloropropylene (542-75-6)	X			< 4.0	< .011					1	ug/l	lbs/d	< 4.0		1
19V Ethylbenzene (100-41-4)	X			< 7.2	< .020					1	ug/l	lbs/d	< 7.2		1
20V Methyl Bromide (74-83-9)	X			< 1.2	< .0033					1	ug/l	lbs/d	< 1.2		1
21V Methyl Chloride (74-87-3)	X			< 1.0	< .0028					1	ug/l	lbs/d	< 1.0		1



CONTINUED FROM PAGE 3

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a. TEST METHOD	b. NO. OF SAMPLES	a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (if available)	b. NO. OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>								
22V METHYLENE Chloride (108-90-2)	X		<.0077		ug/l	lbs/d	<2.8	1
23V 1,1,2,2-Tetra-chloroethane (79-34-5)	X		<.019		ug/l	lbs/d	<6.9	1
24V Tetra-chloro-ethylene (127-18-4)	X		<.011		ug/l	lbs/d	<4.1	1
25V Toluene (108-88-3)	X		<.017		ug/l	lbs/d	<6.0	1
26V 1,2-Trans-Dichloroethylene (156-80-2)	X		<.0044		ug/l	lbs/d	<1.6	1
27V 1,1,1-Trichloroethane (71-55-4)	X		<.010		ug/l	lbs/d	<3.8	1
28V 1,1,2-Trichloroethane (78-07-3)	X		<.4		ug/l	lbs/d	<5.0	1
29V Trichloro-ethylene (79-01-6)	X		<.0052		ug/l	lbs/d	<1.9	1
30V Trichloro-fluoroethane (75-08-4)	X		<.018		ug/l	lbs/d	<6.5	1
31V Vinyl Chloride (75-01-4)	X		<.0036		ug/l	lbs/d	<1.3	1
<b>GC/MS FRACTION - ACID COMPOUNDS</b>								
1A 2-Chlorophenol (85-57-8)	X		<.0091		ug/l	lbs/d	<3.3	1
2A 2,4-Dichlorophenol (120-83-2)	X		<.0074		ug/l	lbs/d	<2.7	1
3A 2,4,6-Trichlorophenol (105-57-3)	X		<.0074		ug/l	lbs/d	<2.7	1
4A 4,6-Dinitro-Ortho-Cresol (504-52-1)	X		<.066		ug/l	lbs/d	<24	1
5A 2,4-Dinitrophenol (51-28-5)	X		<.12		ug/l	lbs/d	<42	1
6A 2,6-Dinitrophenol (88-75-3)	X		<.0099		ug/l	lbs/d	<3.6	1
7A 4-Nitrophenol (100-02-7)	X		<.0066		ug/l	lbs/d	<2.4	1
8A 7-Chloro-Ortho-Cresol (95-50-7)	X		<.0083		ug/l	lbs/d	<3.0	1
9A 7-Nitro-Ortho-Cresol (87-86-5)	X		<.0099		ug/l	lbs/d	<3.6	1
10A Phenol (108-95-2)	X		<.0041		ug/l	lbs/d	<1.5	1
**11A 2,4,6-Trichlorophenol (88-06-2)	X		<.0074		ug/l	lbs/d	<2.7	1

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. TEST METHOD (if available)	b. BE LEVEL SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>									
1B Acenaphthene (83-32-9)		X							
2B Acenaphthylene (208-96-8)		X							
3B Anthracene (120-12-7)		X							
4B Benzidine (62-67-5)		X							
5B Benzo (a) Anthracene (56-55-5)		X							
6B Benzo (a) Pyrene (50-32-8)		X							
7B 3,4-Benzofluoranthene (205-99-2)		X							
8B Benzo (ghi) Perylene (191-24-2)		X							
9B Benzo (k) Fluoranthene (207-08-9)		X							
10B Bis (2-Chloroethoxy) Methane (111-91-1)		X							
11B Bis (2-Chloroethyl) Ether (111-44-4)		X							
12B Bis (2-Chloroisopropyl) Ether (39-38-37-9)		X							
13B Bis (2-Ethylhexyl) Phthalate (117-81-7)		X							
14B 4-Bromo-phenyl Phenyl Ether (101-55-3)		X							
15B Butyl Benzyl Phthalate (85-68-7)		X							
16B 2-Chloro-naphthalene (91-58-7)		X							
17B 4-Chloro-phenyl Phenyl Ether (105-77-3)		X							
18B Chrysene (218-01-9)		X							
19B Dibenzo (a,h) Anthracene (53-70-3)		X							
20B 1,2-Dichloro-benzene (95-50-1)		X							
21B 1,3-Dichloro-benzene (541-73-1)		X							

NPDES # (If Assigned) MO-0098001  
 OUTFALL NUMBER 003

CONTINUED FROM PAGE 5

1. POLLUTANT NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	TEST REQUIRED	BE LIVED AS SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANALYSES	
<b>GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)</b>									
278 1,4-Dichlorobenzene (106-46-7)		X							
238 3,3-Dichlorobenzidine (91-94-1)		X							
248 Diethyl Phthalate (84-66-2)		X							
258 Dimethyl Phthalate (131-11-3)		X							
268 Di-N-Butyl Phthalate (84-74-2)		X							
278 2,4-Dinitrotoluene (121-14-2)		X							
288 2,6-Dinitrotoluene (606-20-2)		X							
298 Di-N-Octyl Phthalate (117-84-0)		X							
308 1,2-Diphenylhydrazine (135-42-2; benzene) (122-66-7)		X							
318 Fluoranthene (206-44-0)		X							
328 Fluorene (86-73-7)		X							
338 Hexachlorobenzene (118-71-1)		X							
348 Hexachlorobutadiene (87-68-3)		X							
358 Hexachlorocyclopentadiene (17-47-4)		X							
368 Hexachloroethane (67-72-1)		X							
378 Indeno (1,2,3-cd) Pyrene (193-39-3)		X							
388 Isophthalic (78-59-1)		X							
398 Naphthalene (91-20-3)		X							
408 Nitrobenzene (98-95-3)		X							
418 N-Nitrosodimethylaniline (62-75-9)		X							
428 N-Nitros-N-Propylamine (62-164-7)		X							

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	TEST REQUIR'D	BE LISTED AS PESTICIDE	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
<b>GC/MS FRACTION I - BASE/NEUTRAL COMPOUNDS (continued)</b>										
43B N Nito-sodiphenylamine (85-30 6)		X								
44B Phenanthrene (85-01 8)		X								
45B Pyrene (129-00-0)		X								
46B 1,2,4-Trichlorobenzene (120-81-1)		X								
<b>GC/MS FRACTION II - PESTICIDES</b>										
1V Aldrin (309-00-2)		X								
2P α-BHC (319-84 6)		X								
3P β-BHC (319-85 7)		X								
4P γ-BHC (32-89 9)		X								
5P δ-BHC (319-86 8)		X								
6P Chlordane (57-74-9)		X								
7P 4,4'-DDE (50-29-3)		X								
8P 4,4'-DDE (72-55-9)		X								
9P 4,4'-DDE (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 (72-70 8)		X								
15P Endrin Aldehyde (7421-53-4)		X								
16P Heptachlor (76-44 8)		X								

CONTINUE ON PAGE 8

NPDES # (if assigned) **MO-0098001** OUTFALL NUMBER **003**

CONTINUED FROM PAGE 7

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK 'X' a. TEST METHOD b. MEASURED c. REASONABLE d. REASONABLE e. REASONABLE	3. EFFLUENT		4. NO OF ANALYSES	4. UNITS		5. INTAKE (optional)	
		a. MAXIMUM DAILY VALUE <i>(if available)</i> CONCENTRATION	b. MAXIMUM 30 DAY VALUE <i>(if available)</i> CONCENTRATION		c. LONG TERM AVG. VALUE <i>(if available)</i> CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS
<b>GC/MS FRACTION - PESTICIDES (continued)</b>								
1. Dieldrin 147-85-1	X							
2. Dieldrin 147-85-1	X							
3. Dieldrin 147-85-1	X							
4. Dieldrin 147-85-1	X							
5. Dieldrin 147-85-1	X							
6. Dieldrin 147-85-1	X							
7. Dieldrin 147-85-1	X							
8. Dieldrin 147-85-1	X							
9. Dieldrin 147-85-1	X							
10. Dieldrin 147-85-1	X							
11. Dieldrin 147-85-1	X							
12. Dieldrin 147-85-1	X							
13. Dieldrin 147-85-1	X							
14. Dieldrin 147-85-1	X							
15. Dieldrin 147-85-1	X							
16. Dieldrin 147-85-1	X							
17. Dieldrin 147-85-1	X							
18. Dieldrin 147-85-1	X							
19. Dieldrin 147-85-1	X							
20. Dieldrin 147-85-1	X							
21. Dieldrin 147-85-1	X							
22. Dieldrin 147-85-1	X							
23. Dieldrin 147-85-1	X							
24. Dieldrin 147-85-1	X							
25. Dieldrin 147-85-1	X							
26. Dieldrin 147-85-1	X							
27. Dieldrin 147-85-1	X							
28. Dieldrin 147-85-1	X							
29. Dieldrin 147-85-1	X							
30. Dieldrin 147-85-1	X							
31. Dieldrin 147-85-1	X							
32. Dieldrin 147-85-1	X							
33. Dieldrin 147-85-1	X							
34. Dieldrin 147-85-1	X							
35. Dieldrin 147-85-1	X							
36. Dieldrin 147-85-1	X							
37. Dieldrin 147-85-1	X							
38. Dieldrin 147-85-1	X							
39. Dieldrin 147-85-1	X							
40. Dieldrin 147-85-1	X							
41. Dieldrin 147-85-1	X							
42. Dieldrin 147-85-1	X							
43. Dieldrin 147-85-1	X							
44. Dieldrin 147-85-1	X							
45. Dieldrin 147-85-1	X							
46. Dieldrin 147-85-1	X							
47. Dieldrin 147-85-1	X							
48. Dieldrin 147-85-1	X							
49. Dieldrin 147-85-1	X							
50. Dieldrin 147-85-1	X							
51. Dieldrin 147-85-1	X							
52. Dieldrin 147-85-1	X							
53. Dieldrin 147-85-1	X							
54. Dieldrin 147-85-1	X							
55. Dieldrin 147-85-1	X							
56. Dieldrin 147-85-1	X							
57. Dieldrin 147-85-1	X							
58. Dieldrin 147-85-1	X							
59. Dieldrin 147-85-1	X							
60. Dieldrin 147-85-1	X							
61. Dieldrin 147-85-1	X							
62. Dieldrin 147-85-1	X							
63. Dieldrin 147-85-1	X							
64. Dieldrin 147-85-1	X							
65. Dieldrin 147-85-1	X							
66. Dieldrin 147-85-1	X							
67. Dieldrin 147-85-1	X							
68. Dieldrin 147-85-1	X							
69. Dieldrin 147-85-1	X							
70. Dieldrin 147-85-1	X							
71. Dieldrin 147-85-1	X							
72. Dieldrin 147-85-1	X							
73. Dieldrin 147-85-1	X							
74. Dieldrin 147-85-1	X							
75. Dieldrin 147-85-1	X							
76. Dieldrin 147-85-1	X							
77. Dieldrin 147-85-1	X							
78. Dieldrin 147-85-1	X							
79. Dieldrin 147-85-1	X							
80. Dieldrin 147-85-1	X							
81. Dieldrin 147-85-1	X							
82. Dieldrin 147-85-1	X							
83. Dieldrin 147-85-1	X							
84. Dieldrin 147-85-1	X							
85. Dieldrin 147-85-1	X							
86. Dieldrin 147-85-1	X							
87. Dieldrin 147-85-1	X							
88. Dieldrin 147-85-1	X							
89. Dieldrin 147-85-1	X							
90. Dieldrin 147-85-1	X							
91. Dieldrin 147-85-1	X							
92. Dieldrin 147-85-1	X							
93. Dieldrin 147-85-1	X							
94. Dieldrin 147-85-1	X							
95. Dieldrin 147-85-1	X							
96. Dieldrin 147-85-1	X							
97. Dieldrin 147-85-1	X							
98. Dieldrin 147-85-1	X							
99. Dieldrin 147-85-1	X							
100. Dieldrin 147-85-1	X							

**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

NPDES # (If Assigned)	<b>TABLE II</b>	OUTFALL NUMBER *
	MO-0098001	003

\*Clarifier Blowdown  
See Attachment F

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven 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)		b. NO. OF ANALYSES			
	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)		a. CONCEN-TRATION	b. MASS		a. LONG TERM AVERAGE VALUE		
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-0)	X			< .01	< .03					1	mg/l	lbs/d	< .01		1
2M Arsenic Total (7440-38-2)	X			.02	.06					1	mg/l	lbs/d	< .01		1
3M Beryllium Total (7440-41-7)	X			< .001	< .003					1	mg/l	lbs/d	< .001		1
4M Cadmium Total (7440-43-9)	X			.026	.071					1	mg/l	lbs/d	< .001		1
5M Chromium Total (7440-47-3)	X			.02	.06					1	mg/l	lbs/d	< .01		1
6M Copper Total (7550-50-8)	X			.31	.85					1	mg/l	lbs/d	< .01		1
7M Lead Total (7439-97-6)	X			.05	.1					1	mg/l	lbs/d	< .01		1
8M Mercury Total (7439-97-6)	X			< .0004	< .001					1	mg/l	lbs/d	< .0004		1
9M Nickel Total (7440-02-0)	X			.3	.8					1	mg/l	lbs/d	< .1		1
10M Selenium Total (7782-49-2)	X			< .01	< .03					1	mg/l	lbs/d	< .01		1
11M Silver Total (7440-72-4)	X			< .01	< .03					1	mg/l	lbs/d	< .01		1
12M Thallium Total (7440-28-0)	X			< .01	< .03					1	mg/l	lbs/d	< .01		1
13M Zinc Total (7440-66-6)	X			.7	2					1	mg/l	lbs/d	< .1		1
14M Cyanide Total (57-12-5)	X			< .1	< .3					1	mg/l	lbs/d	< .1		1
15M Phenols Total	X			< .001	< .003					1	mg/l	lbs/d	< .001		1
<b>DIOXIN</b>															
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 BY OWNER	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	
<b>GC/MS FRACTION — VOLATILE COMPOUNDS</b>															
IV Acrolein (107-02-0)	X			< 7.5	< .021					1	ug/l	lbs/d	< 7.5		1
2V Acrylonitrile (107-13-1)	X			< 5.2	< .014					1	ug/l	lbs/d	< 5.2		1
3V Benzene (71-43-2)	X			< 4.4	< .012					1	ug/l	lbs/d	< 4.4		1
4V Bis (Chloro methyl) Ether (542-86-1)	X			< 5.8	< .016					1	ug/l	lbs/d	< 5.8		1
5V Bromoform (75-25-2)	X			< 4.7	< .013					1	ug/l	lbs/d	< 4.7		1
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
7V Chlorobenzene (108-90-7)	X			< 6.0	< .017					1	ug/l	lbs/d	< 6.0		1
8V Chlorobromomethane (124-48-1)	X			< 3.1	< .0085					1	ug/l	lbs/d	< 3.1		1
9V Chloroethane (75-00-3)	X			< 8.2	< .023					1	ug/l	lbs/d	< 8.2		1
10V 2-Chloroethylvinyl Ether (110-75-6)	X			< 2.6	< .0072					1	ug/l	lbs/d	< 2.6		1
11V Chloroform (67-66-3)	X			< 1.6	< .0044					1	ug/l	lbs/d	< 1.6		1
12V Dichlorobromomethane (75-27-4)	X			< 2.2	< .0061					1	ug/l	lbs/d	< 2.2		1
13V Dichlorodifluoromethane (75-71-8)	X			< 5.0	< .018					1	ug/l	lbs/d	< 5.0		1
14V 1,1-Dichloroethane (75-34-3)	X			< 4.7	< .013					1	ug/l	lbs/d	< 4.7		1
15V 1,2-Dichloroethane (107-06-2)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
16V 1,1-Dichloroethylene (75-35-4)	X			< 2.8	< .0077					1	ug/l	lbs/d	< 2.8		1
17V 1,2-Dichloropropane (78-87-5)	X			< 6.0	< .017					1	ug/l	lbs/d	< 6.0		1
18V 1,2-Dichloropropane (542-75-6)	X			< 4.0	< .011					1	ug/l	lbs/d	< 4.0		1
19V Ethylbenzene (100-41-4)	X			< 7.2	< .020					1	ug/l	lbs/d	< 7.2		1
20V Methyl Bromide (74-83-9)	X			< 1.2	< .0033					1	ug/l	lbs/d	< 1.2		1
21V Methyl Chloride (74-87-3)	X			< 1.0	< .0028					1	ug/l	lbs/d	< 1.0		1

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
	TESTING REQUIRED	IF USED FOR SERT	IF USED FOR SERT	MAXIMUM 30 DAY VALUE (if available)	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	
	GC/MS FRACTION - VOLATILE COMPOUNDS (continued)	2. MAXIMUM DAILY VALUE	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	CONCENTRATION	(1) MASS	
22V Methylene Chloride (75-09-2)	X			< 2.8	< .0077				ug/l	lbs/d	< 2.8		1
23V 1,1,2,2-Tetra-chloroethane (78-34-5)	X			< 6.9	< .019				ug/l	lbs/d	< 6.9		1
24V Tetra-chloro-ethylene (127-18-4)	X			< 4.1	< .011				ug/l	lbs/d	< 4.1		1
25V Toluene (108-98-3)	X			< 6.0	< .017				ug/l	lbs/d	< 6.0		1
26V 1,2-Dichloro-ethylene (152-05-3)	X			< 1.6	< .0044				ug/l	lbs/d	< 1.6		1
27V 1,1,1-Trichloroethane (71-35-8)	X			< 3.8	< .010				ug/l	lbs/d	< 3.8		1
28V 1,1,2-Trichloroethane (78-07-3)	X			< 5.0	< .4				ug/l	lbs/d	< 5.0		1
29V Trichloro-ethylene (78-01-6)	X			< 1.9	< .0052				ug/l	lbs/d	< 1.9		1
30V Trichloro-fluoromethane (75-68-8)	X			< 6.5	< .018				ug/l	lbs/d	< 6.5		1
31V 1,1,1-Trichloro (75-01-4)	X			< 1.3	< .0036				ug/l	lbs/d	< 1.3		1
<b>GC/MS FRACTION - ACID COMPOUNDS</b>													
1A 2,4-Dichloropheno (86-57-8)	X			< 3.3	< .0091				ug/l	lbs/d	< 3.3		1
2A 2,4-Dichloropheno (70-83-2)	X			< 2.7	< .0074				ug/l	lbs/d	< 2.7		1
3A 2,4-Dinitrophenol (85-67-8)	X			< 2.7	< .0074				ug/l	lbs/d	< 2.7		1
4A 4,6-Dinitro-Cresol (534-52-1)	X			< 24	< .066				ug/l	lbs/d	< 24		1
5A 2,4-Dinitrophenol (51-28-3)	X			< 42	< .12				ug/l	lbs/d	< 42		1
6A 2,4-Dinitrophenol (88-75-3)	X			< 3.6	< .0099				ug/l	lbs/d	< 3.6		1
7A 4,4-Dinitrophenol (100-02-7)	X			< 2.4	< .0066				ug/l	lbs/d	< 2.4		1
8A 2-Chloro-4-Cresol (95-50-1)	X			< 3.0	< .0083				ug/l	lbs/d	< 3.0		1
9A Pentachloro-phenol (87-86-5)	X			< 3.6	< .0099				ug/l	lbs/d	< 3.6		1
10A Phenol (108-95-2)	X			< 1.5	< .0041				ug/l	lbs/d	< 1.5		1
*11A 2,4,6-Trichloropheno (85-03-2)	X			< 2.7	< .0074				ug/l	lbs/d	< 2.7		1



CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b. NO. OF ANAL. YSES
	a. TEST METHOD	b. USE PRESENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	
	GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS								
18 Acenaphthene (83-32-9)		X							
28 Acenaphthylene (208-96-8)		X							
38 Anthracene (120-12-7)		X							
48 Benzidine (92-87-5)		X							
58 Benzo (a) Anthracene (56-55-3)		X							
68 Benzo (a) Pyrene (50-32-8)		X							
78 3,4-Benzofluoranthene (205-99-7)		X							
88 Benzo (ghi) Perylene (191-24-2)		X							
96 Benzo (k) Fluoranthene (207-08-9)		X							
108 Bis (2-Chloroethyl) Methane (111-91-1)		X							
118 Bis (2-Chloroethyl) Ether (111-44-4)		X							
128 Bis (2-Chloroisopropyl) Ether (296-38-32-9)		X							
138 Bis (2-Ethylhexyl) Fthalate (117-81-7)		X							
148 4-Bromophenyl Phenyl Ether (101-55-3)		X							
158 Butyl Benzyl Phthalate (65-61-7)		X							
168 2-Chloro isopthalate (51-56-7)		X							
178 4-Chloro phenyl Phenyl Ether (2005-72-3)		X							
188 Chloroacetate (218-01-9)		X							
198 D-benzo (a, h) Anthracene (53-70-3)		X							
208 1,2-Dichloro benzene (95-50-1)		X							
218 1,3-Dichloro benzene (541-73-1)		X							

CONTINUED FROM PAGE 5

NPOES # (if Assigned) MO-0098001  
OUTFALL NUMBER 003

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	A TESTING METHOD	B BE LIQUID OR SOLID	C MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	D MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	E CONCENTRATION	F LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	G NO. OF ANAL. YSES	H NO. OF ANAL. YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)								
278 1,4 Dichloro-benzene (106-46-7)		X						
208 1,3 Dichloro-benzene (91-94-1)		X						
248 Diethyl Phthalate (84-66-2)		X						
258 Dimethyl Phthalate (131-11-3)		X						
268 Di-N-Butyl Phthalate (84-74-2)		X						
278 2,4 Dinitro-toluene (121-14-2)		X						
288 2,6 Dinitro-toluene (606-26-2)		X						
298 Di-N-Octyl Phthalate (117-84-0)		X						
308 1,2 Diphenoxyhydrazine (as 2,2'-Benzene) (122-66-2)		X						
318 Fluoranthene (276-44-0)		X						
328 Fluorene (86-73-7)		X						
338 Hexachlorobenzene (118-71-1)		X						
348 Hexachlorobenzene (87-58-3)		X						
358 Hexachlorocyclopentadiene (174-47-4)		X						
368 Hexachloroethane (67-72-1)		X						
378 Indeno (1,2,3-c,d) Pyrene (193-39-5)		X						
388 Isophthalic acid (91-20-3)		X						
408 Nitrobenzene (98-95-3)		X						
418 N-Nitrosodimethylamine (62-75-9)		X						
428 N-Nitrosodimethylamine (62-75-9)		X						
438 N-Propylamine (62-76-7)		X						

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. TEST NO. (if available)	b. BE. LEVEL (if available)	a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVRG. VALUE (if available)	d. NO. OF ANALYSES	a. CONCEN. FRACTION	b. MASS	
	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	(1) CONCEN. (2) MASS	
<b>GC/MS FRACTIONS — BASE/NEURAL COMPOUNDS (continued)</b>									
43B N-Nitro-5-methoxyamine (66-30-6)		X							
44B Phenanthrene (85-01-8)		X							
45B Pyrene (129-00-0)		X							
46B 1,2,4-Trichlorobenzene (120-82-1)		X							
<b>GC/MS FRACTIONS — PESTICIDES</b>									
1P Aldrin (309-00-2)		X							
2P $\alpha$ -BHC (139-84-6)		X							
3P $\gamma$ -BHC (139-85-7)		X							
4P $\delta$ -BHC (58-89-9)		X							
5P $\beta$ -BHC (139-86-8)		X							
6P Chlordane (57-74-9)		X							
7P 4,4'-DDE (150-29-3)		X							
8P 4,4'-DDE (72-55-9)		X							
9P 4,4'-DDE (72-54-8)		X							
10P Dieldrin (60-57-1)		X							
11P $\alpha$ -Endosulfan (115-29-7)		X							
12P $\beta$ -Endosulfan (115-29-1)		X							
13P Endosulfan Sulfate (1031-07-8)		X							
14P Endrin (72-20-8)		X							
15P Endrin Alderhyde (7321-93-4)		X							
16P Heptachlor (76-44-8)		X							

CONTINUED FROM PAGE 7

NPDES # (if assigned) MO-0098001

OUTFALL NUMBER

003

3. EFFLUENT

5. INTAKE (optional)

1. POLLUTANT AND CAS NUMBER (available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a. TEST CONC. (µg/l)	b. BE LIVED FOR SET	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. NO. OF ANAL. YSES
GC/MS FRAG: CH - PESTICIDES (continued)								
177 heptachlor E. code (100-57-3)		X						
187 PCB 1242 (209-21-9)		X						
197 PCB 1254 (100-69-1)		X						
207 PCB 1271 (100-28-2)		X						
217 PCB 1212 (100-16-5)		X						
227 PCB 1248 (1672-29-6)		X						
237 PCB 1260 (100-87-5)		X						
247 PCB 1016 (264-112-5)		X						
257 Toxaphene (501-35-2)		X						

**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

<b>TABLE II</b>	
NPDES # (If Assigned) MO-0098001	OUTFALL NUMBER 004

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-b for each pollutant you know or have column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER <small>(if available)</small>	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE <small>(optional)</small>		
	a. TESTING REQUIRED	b. BE LIKED PRESENT	c. BE LIKED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE <small>(if available)</small>		c. LONG TERM AVRG. VALUE <small>(if available)</small>		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	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-0)	X			<.01	<.006					1	mg/l	lbs/d			
2M Arsenic Total (7440-38-2)	X			<.01	<.006					1	mg/l	lbs/d			
3M Beryllium Total (7440-41-7)	X			<.001	<.0006					1	mg/l	lbs/d			
4M Cadmium Total (7440-43-9)	X			.003	.002					1	mg/l	lbs/d			
5M Chromium Total (7440-47-3)	X			.02	.01					1	mg/l	lbs/d			
6M Copper Total (7550-50-8)	X			<.01	<.006					1	mg/l	lbs/d			
7M Lead Total (7439-97-6)	X			<.01	<.006					1	mg/l	lbs/d			
8M Mercury Total (7439-97-6)	X			<.0004	<.0003					1	mg/l	lbs/d			
9M Nickel Total (7440-02-0)	X			<.1	<.06					1	mg/l	lbs/d			
10M Selenium Total (7782-49-2)	X			<.01	<.006					1	mg/l	lbs/d			
11M Silver Total (7440-22-4)	X			.02	.01					1	mg/l	lbs/d			
12M Thallium Total (7440-28-0)	X			.02	.01					1	mg/l	lbs/d			
13M Zinc Total (7440-66-6)	X			<.1	<.06					1	mg/l	lbs/d			
14M Cyanide Total (57-12-5)	X			<.1	<.06					1	mg/l	lbs/d			
15M Phenols Total	X			<.001	<.0006					1	mg/l	lbs/d			
<b>DIOXIN</b>															
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		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>															
1V Acetone (107-02-8)	X			< 7.5	< .0048					1	ug/l	lbs/d			
2V Acrylonitrile (107-13-1)	X			< 5.2	< .0033					1	ug/l	lbs/d			
3V Benzene (71-43-2)	X			< 4.4	< .0028					1	ug/l	lbs/d			
4V Bis (Chloro methyl) Ether (542-88-1)	X			< 5.8	< .0037					1	ug/l	lbs/d			
5V Bromoform (75-25-2)	X			< 4.7	< .0030					1	ug/l	lbs/d			
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	< .0018					1	ug/l	lbs/d			
7V Chlorobenzene (108-90-7)	X			< 6.0	< .0038					1	ug/l	lbs/d			
8V Chloro-bromomethane (124-48-1)	X			< 3.1	< .0020					1	ug/l	lbs/d			
9V Chloroethane (75-00-3)	X			< 8.2	< .0052					1	ug/l	lbs/d			
10V ? Chloroethylvinyl Ether (110-75-8)	X			< 2.6	< .0016					1	ug/l	lbs/d			
11V Chloroform (67-66-3)	X			< 1.6	< .0010					1	ug/l	lbs/d			
12V Dichloro-bromomethane (75-27-4)	X			< 2.2	< .0014					1	ug/l	lbs/d			
13V Dichloro-difluoromethane (75-71-8)	X			< 5.0	< .0032					1	ug/l	lbs/d			
14V 1,1-Dichloroethane (75-34-3)	X			< 4.7	< .0030					1	ug/l	lbs/d			
15V 1,2-Dichloroethane (107-06-2)	X			< 2.8	< .0018					1	ug/l	lbs/d			
16V 1,1-Dichloroethylene (75-35-4)	X			< 2.8	< .0018					1	ug/l	lbs/d			
17V 1,2-Dichloropropane (78-87-5)	X			< 6.0	< .0038					1	ug/l	lbs/d			
18V 1,2-Dichloropropylene (547-75-6)	X			< 4.0	< .0025					1	ug/l	lbs/d			
19V Ethylbenzene (100-41-4)	X			< 7.2	< .0046					1	ug/l	lbs/d			
20V Methyl Bromide (74-83-9)	X			< 1.2	< .0076					1	ug/l	lbs/d			
21V Methyl Chloride (74-87-3)	X			< 1.0	< .00063					1	ug/l	lbs/d			

CONTINUED FROM PAGE 3

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	1. TEST METHOD REQUIRED	2. BE LIVED FOR 15 MIN	a. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	b. LONG TERM AVRG VALUE (if available) (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>								
24 METHYLENE Chloride (75-08-2)	X		< 2.8	<.0018	1	lbs/d		
23 1,1,2,2-Tetra chloroethane (79-34-5)	X		< 6.9	<.0044	1	lbs/d		
24V Trichloroethylene (127-18-4)	X		< 4.1	<.0026	1	lbs/d		
25V Toluene (108-08-3)	X		< 6.0	<.0038	1	lbs/d		
26V 1,2-Trans-Dichloroethylene (156-80-3)	X		< 1.6	<.0010	1	lbs/d		
27V 1,1,1-Trichloroethane (71-55-9)	X		< 3.8	<.0024	1	lbs/d		
28V 1,1,2-Trichloroethane (78-07-2)	X		< 5.0	<.0032	1	lbs/d		
29V Trichloroethylene (79-01-6)	X		< 1.9	<.0012	1	lbs/d		
30V Trichloroethylene (79-01-6)	X		< 6.5	<.0041	1	lbs/d		
31V Very Chlorox (75-01-4)	X		< 1.3	<.00082	1	lbs/d		
<b>GC/MS FRACTION - ACID COMPOUNDS</b>								
1A 2-Chlorophenol (95-57-8)	X		< 3.3	<.0021	1	lbs/d		
2A 2,4-Dichlorophenol (120-83-2)	X		< 2.7	<.0017	1	lbs/d		
3A 2,4-Dimethylphenol (105-67-9)	X		< 2.7	<.0017	1	lbs/d		
4A 4,4-Dichloro-Cresol (534-52-1)	X		< 24	<.015	1	lbs/d		
5A 2,4-Dichlorophenol (51-28-5)	X		< 42	<.027	1	lbs/d		
6A 2,6-Dichlorophenol (88-75-3)	X		< 3.6	<.0023	1	lbs/d		
7A 4-Chlorophenol (106-67-7)	X		< 2.4	<.0015	1	lbs/d		
8A 2-Chlorophenol (95-57-8)	X		< 3.0	<.0019	1	lbs/d		
9A Pentachlorophenol (87-86-3)	X		< 3.6	<.0023	1	lbs/d		
10A Phenol (108-95-2)	X		< 1.5	<.00095	1	lbs/d		
11A 2,4,6-Trichlorophenol (88-06-2)	X		< 2.7	<.0017	1	lbs/d		

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available) GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. TEST METHOD (1000-10000)	B. TEST METHOD (1000-10000)	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANAL. YSES	A. CONCENTRATION		B. MASS	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS		
1B Acenaphthene (83-32-9)													
2B Acenaphthylene (208-96-8)			X										
3B Anthracene (120-12-7)			X										
4B Benzidine (62-47-5)			X										
5B Benzo (a) Anthracene (56-55-3)			X										
6B Benzo (a) Pyrene (50-32-8)			X										
7B 3,4 Benzo fluoranthene (205-93-2)			X										
8B Benzo (ghi) Perylene (191-24-2)			X										
9B Benzo (k) Fluoranthene (207-08-9)			X										
10B Bis (2-Chloroethoxy) Methane (111-91-1)			X										
11B Bis (2-Chloroethyl) Ether (111-44-4)			X										
12B Bis (2-Chloroisopropyl) Ether (286-86-32-9)			X										
13B Bis (2-Ethylhexyl) Phthalate (117-81-7)			X										
14B 4-Bromo-benzyl Propyl Ether (101-55-3)			X										
15B Butyl Benzyl Phthalate (85-16-7)			X										
16B 2-Chloro-naphthalene (91-58-7)			X										
17B 4-Chloro-phenyl Propyl Ether (2005-72-1)			X										
18B Chrysene (218-01-9)			X										
19B Dibenzo (a,h) Anthracene (53-70-3)			X										
20B 1,2-Dichloro-benzene (95-50-1)			X										
21B 1,3-Dichloro-benzene (541-73-1)			X										



NPDES # (If Assigned) MO-0098001  
 OUTFALL NUMBER 004

CONTINUED FROM PAGE 5

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	A. TEST RIGOR (1)	B. BE SERVED (2)	C. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	E. LONG TERM AVRG. VALUE (1) CONCENTRATION (2) MASS	F. CONCENTRATION	G. MASS	H. NO. OF ANAL. YSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)								
229 1,4 Dichloro benzene (106-46-7)		X						
238 3,3 Dichloro benzidine (91-94-1)		X						
248 Diethyl Phthalate (85-66-7)		X						
258 Dimethyl Phthalate (133-11-3)		X						
268 Di-N Butyl Phthalate (84-74-2)		X						
278 2,4-Dinitro toluene (121-14-2)		X						
288 2,6-Dinitro toluene (606-20-2)		X						
298 Di-N Octyl Phthalate (117-84-0)		X						
308 1,2 Diphenoxyhydrazine (85-62-7) Peonone (122-66-7)		X						
318 Fluoranthene (206-44-0)		X						
328 Fluorene (86-73-7)		X						
338 Hexa chlorobenzene (118-71-1)		X						
348 Hexa chlorobutadiene (87-66-3)		X						
358 Hexachloro cyclopentadiene (177-47-4)		X						
368 Hexachloro ethane (67-72-1)		X						
378 Indeno (1,2,3-c,d) Pyrene (193-39-5)		X						
388 Isophorone (78-59-1)		X						
398 Naphthalene (91-20-3)		X						
408 Nitrobenzene (98-95-3)		X						
418 N Nitro sudimethylamine (62-75-9)		X						
428 N Nitrosod N Propylamine (821-64-7)		X						

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		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	e. CONCENTRATION	f. 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	
<b>GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)</b>															
43B N Nitro-sodiphenylamine (86-30-6)			X												
44B Phenanthrene (85-01-8)			X												
45B Pyrene (129-00-0)			X												
46B 1,2,4-Trichlorobenzene (120-82-1)			X												
<b>GC/MS FRACTION — PESTICIDES</b>															
1P Aldrin (309-00-2)			X												
2P $\alpha$ BHC (319-84-6)			X												
3P $\beta$ BHC (319-85-7)			X												
4P $\gamma$ BHC (58-89-9)			X												
5P $\delta$ BHC (319-86-8)			X												
6P Chlordane (57-74-9)			X												
7P 4,4'-DDT (50-29-3)			X												
8P 4,4'-DDE (72-50-9)			X												
9P 4,4'-DDD (72-54-8)			X												
10P Dieldrin (60-57-1)			X												
11P $\alpha$ -Endosulfan (115-29-7)			X												
12P $\beta$ -Endosulfan (115-29-7)			X												
13P Endosulfan Sulfate (1031-07-8)			X												
14P Endrin (72-30-8)			X												
15P Endrin Alderhyde (7421-93-4)			X												
16P Heptachlor (76-44-8)			X												

NPDES # (if assigned) **MO-0098C01** OUTFALL NUMBER **004**

CONTINUED FROM PAGE 7

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	TEST REQ'D	TEST PERFORMED	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	d. NO OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
<b>GC/MS FRACTION — PESTICIDES (continued)</b>										
177 Neglathion E: 508 1574 57 3)										
187 PCB 1242 1508 21 9)										
197 PCB 1254 1509 69 1)										
207 PCB 1221 1514 26 2)										
217 PCB 1232 1511 16 5)										
227 PCB 1248 1512 21 6)										
237 PCB 1260 1516 42 5)										
247 PCB 1016 1518 4 11-2)										
257 Toxaphene 0001 35 2)										

**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

<b>TABLE II</b>	
NPDES # (If Assigned) <b>MO-0098001</b>	OUTFALL NUMBER <b>005</b>

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-b for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-c for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER <small>(if available)</small>	2. MARK "X"			3. EFFLUENT						4. UNITS			5. INTAKE <small>(optional)</small>		b. NO. OF ANALYSES	
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE <small>(if available)</small>		c. LONG TERM AVRG. VALUE <small>(if available)</small>		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE			
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>																
1M Antimony Total (7440-36-0)	X			< 0.01	< .004					1	mg/l	lbs/d				
7M Arsenic Total (7440-38-2)	X			< 0.01	< .004					1	mg/l	lbs/d				
3M Beryllium Total (7440-41-7)	X			< 0.001	< .0004					1	mg/l	lbs/d				
4M Cadmium Total (7440-43-9)	X			< 0.001	< .0004					1	mg/l	lbs/d				
5M Chromium Total (7440-47-3)	X			< 0.01	< .004					1	mg/l	lbs/d				
6M Copper Total (7550-50-8)	X			.12	.046					1	mg/l	lbs/d				
7M Lead Total (7439-97-6)	X			< 0.01	< .004					1	mg/l	lbs/d				
8M Mercury Total (7439-97-6)	X			< 0.0004	< .0002					1	mg/l	lbs/d				
9M Nickel Total (7440-02-0)	X			< 0.1	< .04					1	mg/l	lbs/d				
10M Selenium Total (7782-49-2)	X			< 0.01	< .004					1	mg/l	lbs/d				
11M Silver Total (7440-22-4)	X			< 0.01	< .004					1	mg/l	lbs/d				
12M Thallium Total (7440-28-0)	X			< 0.01	< .004					1	mg/l	lbs/d				
13M Zinc Total (7440-66-6)	X			0.5	.2					1	mg/l	lbs/d				
14M Cyanide Total (57-12-5)	X			< 0.1	< .04					1	mg/l	lbs/d				
15M Phenols Total	X			< .001	< .0004					1	mg/l	lbs/d				
<b>DIOXIN</b>																
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. BE LIQUID PUL SENT	c. BE LIQUID AS SENT	d. MAXIMUM DAILY VALUE		e. MAXIMUM 30 DAY VALUE (if available)		f. LONG TERM AVRG. VALUE (if available)		g. NO. OF ANALYSES	h. CONCENTRATION	i. MASS	j. LONG TERM AVERAGE VALUE		k. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION — VOLATILE COMPOUNDS</b>															
1V Acroten (107-02-8)	X			< 7.5	<.0029					1	ug/l	lbs/d			
2V Acrylonitrile (107-13-1)	X			< 5.2	<.0020					1	ug/l	lbs/d			
3V Benzene (71-43-2)	X			< 4.4	<.0017					1	ug/l	lbs/d			
4V Bis (Chloro methyl) Ether (542-88-1)	X			< 5.8	<.0022					1	ug/l	lbs/d			
5V Bromoform (75-25-2)	X			< 4.7	<.0018					1	ug/l	lbs/d			
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	<.0011					1	ug/l	lbs/d			
7V Chlorobenzene (108-90-7)	X			< 6.0	<.0023					1	ug/l	lbs/d			
8V Chloro-bromomethane (124-48-1)	X			< 3.1	<.0012					1	ug/l	lbs/d			
9V Chloroethane (75-00-3)	X			< 8.2	<.0031					1	ug/l	lbs/d			
10V 2 Chloro ethylmethyl Ether (110-75-8)	X			< 2.6	<.0010					1	ug/l	lbs/d			
11V Chloroform (67-66-3)	X			< 1.6	<.00061					1	ug/l	lbs/d			
12V Dichloro-bromomethane (75-27-4)	X			< 2.2	<.00084					1	ug/l	lbs/d			
13V Dichloro-difluoromethane (75-71-8)	X			< 5.0	<.0019					1	ug/l	lbs/d			
14V 1,1 Dichloro-ethane (75-34-3)	X			< 4.7	<.0018					1	ug/l	lbs/d			
15V 1,2 Dichloro-ethane (107-06-2)	X			< 2.8	<.0011					1	ug/l	lbs/d			
16V 1,1 Dichloro-ethylene (75-35-4)	X			< 2.8	<.0011					1	ug/l	lbs/d			
17V 1,2 Dichloro-propane (78-87-5)	X			< 6.0	<.0023					1	ug/l	lbs/d			
18V 1,2 Dichloro-propylene (542-75-6)	X			< 4.0	<.0015					1	ug/l	lbs/d			
19V Ethylbenzene (100-41-4)	X			< 7.2	<.0028					1	ug/l	lbs/d			
20V Methyl Bromide (74-83-3)	X			< 1.2	<.00046					1	ug/l	lbs/d			
21V Methyl Chloride (74-87-3)	X			< 1.0	<.00038					1	ug/l	lbs/d			

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	A. TEST RESULT	B. WEIGHED RESIDUE	A. MAXIMUM DAILY VALUE (if available)	B. MAXIMUM 30 DAY VALUE (if available)	A. CONCENTRATION	B. MASS	A. LONG TERM AVERAGE VALUE (if available)	B. NO. OF ANALYSES
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>								
22V METHYLENE Chloride (75-08-2)	X		<.0011		ug/l	lbs/d		
23V 1,1,2,2-Tetra-chloroethane (79-34-5)	X		<.0026		ug/l	lbs/d		
24V Trichloroethylene (127-18-4)	X		<.0016		ug/l	lbs/d		
25V Toluene (108-88-3)	X		<.0023		ug/l	lbs/d		
26V 1,2-Di-chloroethane (106-96-5)	X		<.00061		ug/l	lbs/d		
27V 1,1,1-Trichloroethane (71-55-6)	X		<.0015		ug/l	lbs/d		
28V 1,1,2-Trichloroethane (79-06-5)	X		<.0019		ug/l	lbs/d		
29V Trichloroethylene (79-01-4)	X		<.00073		ug/l	lbs/d		
30x Trichloroethylene (75-85-4)	X		<.0025		ug/l	lbs/d		
31V Vinyl Chloride (75-01-4)	X		<.00050		ug/l	lbs/d		
<b>GC/MS FRACTION - ACID COMPOUNDS</b>								
1A 2-Chlorophenol (85-52-8)	X		<.0013		ug/l	lbs/d		
2A 2,4-Dichlorophenol (120-83-2)	X		<.0010		ug/l	lbs/d		
3A 2,4-Dimethylphenol (105-67-9)	X		<.0010		ug/l	lbs/d		
4A 4,6-Dinitro-O-Cresol (534-52-1)	X		<.0092		ug/l	lbs/d		
5A 2,4-Dinitrophenol (51-78-5)	X		<.016		ug/l	lbs/d		
6A 2-Nitrophenol (85-75-5)	X		<.0014		ug/l	lbs/d		
7A 4-Nitrophenol (100-02-7)	X		<.00092		ug/l	lbs/d		
8A 2-Chlorophenol (55-50-7)	X		<.0012		ug/l	lbs/d		
9A Perchlorophenol (87-86-5)	X		<.0014		ug/l	lbs/d		
10A Phenol (108-95-2)	X		<.00058		ug/l	lbs/d		
11A 2,4,6-Trichlorophenol (88-36-2)	X		<.0010		ug/l	lbs/d		

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)				
	a. TEST METHOD (18)	b. USE OF LAB SET (19)	a. MAXIMUM DAILY VALUE (20) MASS		b. MAXIMUM 30 DAY VALUE (if available) (21) MASS		c. LONG TERM AVG. VALUE (if available) (22) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL. YSES
			(i) CONCENTRATION	(ii) MASS	(i) CONCENTRATION	(ii) MASS					(i) CONCENTRATION	(ii) MASS	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>													
18 Acenaphthene (83-32-9)		X											
28 Acenaphthylene (206-96-8)		X											
36 Anthracene (120-12-7)		X											
48 Benzidine (92-87-5)		X											
58 Benzo (a) Anthracene (56-55-3)		X											
68 Benzo (a) Pyrene (50-32-8)		X											
78 3,4 Benzo fluoranthene (205-99-2)		X											
88 Benzo (ghi) Perylene (191-74-2)		X											
98 Benzo (k) Fluoranthene (207-08-9)		X											
108 Bis (2 Chloroethoxy) Methane (111-91-1)		X											
118 Bis (2 Chloroethyl) Ether (111-44-4)		X											
128 Bis (2 Chloroacetoxy) Ether (354-63-3)		X											
138 Bis (2 Ethylhexyl) Phthalate (117-81-7)		X											
148 4 bis(2-phenyl Phenoxy) Ether (101-55-3)		X											
158 Bis(2-phenyl Phthalate) (85-168-7)		X											
168 2 Chloro naphthalene (91-58-7)		X											
178 4 Chloro phenyl Phenoxy Ether (1085-72-3)		X											
188 Linylene (218-01-9)		X											
198 Dibenzo (a,h) Anthracene (53-70-3)		X											
208 1,2 Dichloro-benzene (106-30-1)		X											
218 1,3 Dichloro-benzene (541-73-1)		X											

NPDES # (If Assigned) MO-0098001  
 OUTFALL NUMBER 005

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	a. TEST NO.	b. BE LIQUID OR SOLID	c. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	d. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	e. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	f. NO. OF ANALYSES	g. CONCENTRATION	h. MASS	i. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	j. NO. OF ANALYSES
<b>GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)</b>										
208 1,4-Dichloro-benzene (106-46-7)		X								
209 3,3-Dichloro-benzidine (91-94-1)		X								
249 Diethyl Phthalate (84-66-2)		X								
250 Dimethyl Phthalate (113-11-3)		X								
263 Di-N-Butyl Phthalate (84-74-2)		X								
278 2,4-Dinitro-toluene (121-14-2)		X								
289 2,6-Dinitro-toluene (896-20-2)		X								
298 Di-N-Octyl Phthalate (117-84-0)		X								
309 1,2-Diphenyl-hydrazine (as 4:2)-benzene (121-66-1)		X								
318 Fluoranthene (206-44-0)		X								
328 Fluorene (86-73-7)		X								
338 Hexa-chlorobenzene (118-71-1)		X								
348 Hexa-chlorobutadiene (87-68-3)		X								
358 Hexachloro-cyclopentadiene (171-47-4)		X								
368 Hexachloro-ethane (67-72-1)		X								
378 Indeno (1,2,3-cd) Pyrene (193-39-5)		X								
388 Isophorone (78-59-1)		X								
398 Naphthalene (91-20-3)		X								
408 Nitrobenzene (98-95-3)		X								
418 N-Nitro-succinylamine (62-75-9)		X								
428 N-Nitrosoc-N-Propylamine (621-64-7)		X								

CONTINUE ON REVERSE



CONTINUED FROM THE FRONT

1. POLLUTANT AND CFS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	N. OF TESTS PER REGION	N. OF LISTS PER SECT.	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVRG. VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
<b>GC/MS FRACTION — BASE/NEURAL COMPOUNDS (continued)</b>										
43B N Nitro-souphenylamine (86-30-6)		X								
44B Phenanthrene (85-01-8)		X								
45B Pyrene (129-00-0)		X								
46B 1,2,3,4-tetra-chlorobenzene (120-82-1)		X								
<b>GC/MS FRACTION — PESTICIDES</b>										
1P Aldrin (309-00-2)		X								
2P $\alpha$ -BHC (319-84-6)		X								
3P $\beta$ -BHC (319-85-1)		X								
4P $\gamma$ -BHC (58-89-9)		X								
5P $\delta$ -BHC (319-86-8)		X								
6P Chloroane (57-74-9)		X								
7P 4,4'-DDE (50-29-3)		X								
8P 4,4'-DDE (72-55-8)		X								
9P 4,4'-DDD (172-54-8)		X								
10P Dieldrin (60-57-1)		X								
11P $\alpha$ -Endosulfan (115-29-7)		X								
12P $\beta$ -Endosulfan (115-29-1)		X								
13P Endosulfan Sulfate (1031-07-8)		X								
14P Endrin (172-70-8)		X								
15P Endrin Acetate (7421-53-4)		X								
16P Heptachlor (76-44-8)		X								

NPDES # (if assigned) **MO-0098001**      **005**  
 OUTFALL NUMBER

CONTINUED FROM PAGE 7

1. POLLUTANT AND CAS NUMBER <i>(available)</i>	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	* TESTING REQUIRED	b. BE LIVED AS SERVED	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION (2) MASS	a. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCEN-TRATION (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION — PESTICIDES (continued)									
178 Dieldrin EPA Code 111-23-57-3		X							
187 PCB 1242 5369-71-9		X							
198 PCB 1254 11087-69-1		X							
228 PCB 1221 11114-28-2		X							
232 PCB 1272 11141-16-5		X							
235 PCB 1248 11072-29-6		X							
239 PCB 1260 11066-82-5		X							
248 PCB 1016 11064-11-2		X							
252 Toxaphene 3001-35-2		X							

**APPLICATION FOR DISCHARGE PERMIT  
Form D - Primary Industries**

NPDES # (If Assigned) **MO-0098001** | TABLE II | **OUTFALL NUMBER 007**

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven 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. LISTED TOXIC SUBSTANCES (if available)	b. OTHER TOXIC SUBSTANCES	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>									
1M Antimony Total (7440-36-0)	X								
2M Arsenic Total (7440-76-2)	X								
3M Beryllium Total (7440-42-0)	X								
4M Cadmium Total (7440-73-4)	X								
5M Chromium Total (7440-47-3)	X								
6M Copper Total (7550-50-8)	X								
7M Lead Total (7439-97-6)	X								
8M Mercury Total (7439-97-6)	X								
9M Nickel Total (7440-02-0)	X								
10M Selenium Total (7782-49-2)	X								
11M Silver Total (7440-22-4)	X								
12M Thallium Total (7440-28-0)	X								
13M Zinc Total (7440-66-6)	X		0.2		0.06				1
14M Cyanide Total (57-12-5)									
15M Phenols Total									
<b>DIOXIN</b>									
2,3,7,8 - Tetra-chlorodibenzo-p-Dioxin (1764-01-6)		X							

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	A. TEST METHOD QUINED	B. BE LIVED PRE SENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	B. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	A. NO. OF ANAL. YSES	B. CONCENTRATION	A. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	B. NO. OF ANAL. YSES
<b>GC/MS FRACTION — VOLATILE COMPOUNDS</b>								
18 Acetone (107-02-6)		X						
29 Acrylonitrile (107-13-1)		X						
30 Benzene (71-43-2)		X						
40 Bis (Chloro methyl) Ether (542-86-1)		X						
54 Bromotorm (75-25-2)		X						
60 Carbon Tetrachloride (56-23-5)		X						
70 Chlorobenzene (106-90-1)		X						
80 Chloro-dibromomethane (124-48-1)		X						
90 Chloroethane (75-00-3)		X						
100 2-Chloro ethyl-ethyl Ether (110-75-8)		X						
110 Chloroform (67-66-3)		X						
120 Dichloro-bromomethane (75-27-4)		X						
130 Dichloro difluoromethane (75-71-8)		X						
140 1,1-Dichloro ethane (75-34-3)		X						
150 1,2-Dichloro ethane (107-06-2)		X						
160 1,1-Dichloro ethylene (75-35-4)		X						
170 1,2-Dichloro propane (78-87-5)		X						
180 1,2-Dichloro propylene (542-75-6)		X						
190 Ethylbenzene (100-41-4)		X						
200 Methyl Bromide (74-83-2)		X						
210 Methyl Chloride (74-87-3)		X						

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'S'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	a. TESTING PERIOD	b. W. LIVES AS PER	a. MAXIMUM DAILY VALUE (If available)	b. MAXIMUM 30 DAY VALUE (If available)	c. LONG TERM AVG. VALUE (If available)	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (If available)	b. NO. OF ANALYSES
<b>GC/MS FRACTION -- VOLATILE COMPOUNDS (continued)</b>										
22V METHYLENE Chloride (75-08-2)		X								
23V 1,1,2,2-Tetra-chloroethane (79-34-5)		X								
24V Tri-chloro-ethylene (127-18-4)		X								
25V Toluene (108-88-3)		X								
26V 1,2-Tetra-Dichloroethane (156-58-5)		X								
27V 1,1,1-Trichloroethane (71-55-6)		X								
28V 1,1,2-Trichloroethane (79-00-5)		X								
29V Trichloroethylene (79-01-4)		X								
30V Trichloro-fluoroethane (75-68-4)		X								
31V Vinyl Chloride (75-01-4)		X								
<b>GC/MS FRACTION -- ACID COMPOUNDS</b>										
1A 2-Chlorophenol (96-57-8)		X								
2A 2,4-Dichlorophenol (120-83-2)		X								
3A 2,4-Dimethylphenol (105-67-9)		X								
4A 4,6-Dinitro-O-Cresol (534-52-1)		X								
5A 2,4-Dinitrophenol (51-28-5)		X								
6A 2-Bromophenol (88-75-4)		X								
7A 4-Bromophenol (100-02-7)		X								
8A P-Chloro-Cresol (29-58-7)		X								
9A Pentachlorophenol (87-86-5)		X								
10A Phenol (108-95-2)		X								
11A 2,4,6-Trichlorophenol (88-08-2)		X								

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. YSES
	A. TEST NUMBER ED	B. USE LISTED PAINT SENT	A. MAXIMUM DAILY VALUE		A. CONCENTRATION		A. LONG TERM AVERAGE VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS</b>									
18 Acenaphthene (83-32-9)		X							
28 Acenaphthylene (208-96-8)		X							
36 Anthracene (128-12-7)		X							
48 Benzidine (92-87-5)		X							
58 Benzo (a) Anthracene (56-55-3)		X							
68 Benzo (a) Pyrene (50-32-8)		X							
78 3,4-Benzofluoranthene (255-99-2)		X							
88 Benzo (ghi) Perylene (191-24-2)		X							
98 Benzo (k) Fluoranthene (207-08-9)		X							
108 Bis (2-Chloro-ethoxy) Methane (111-91-1)		X							
118 Bis (2-Chloro-ethyl) Ether (111-44-4)		X							
128 Bis (2-Chloro-azetoyl) Ether (286-32-9)		X							
138 Bis (2-Ethyl-hexyl) Phthalate (117-81-7)		X							
148 4-Bromo-Phenyl Phenyl Ether (101-55-3)		X							
158 Butyl benzyl Phthalate (85-68-7)		X							
168 2-Chloro-naphthalene (91-58-7)		X							
178 4-Chloro-phenyl Phenyl Ether (105-72-3)		X							
188 Cloxyene (218-01-9)		X							
198 Dibenzo (a,h) Anthracene (53-70-3)		X							
208 1,2-Dichloro-benzene (95-50-1)		X							
218 1,3-Dichloro-benzene (541-73-1)		X							

NPDES # (If Assigned) MO-0098001

OUTFALL NUMBER 007

CONTINUED FROM PAGE 5

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANALYSES
	a. TEST INQUIRY ID	b. BE LIVED AS SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	b. MASS	
<b>GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)</b>									
228 1,4 Dichloro-benzene (106-46-7)		X							
238 3,3 Dichloro-benzidine (91-94-1)		X							
248 Diethyl Phthalate (84-66-2)		X							
258 Dimethyl Phthalate (131-11-3)		X							
266 Di-N-Butyl Phthalate (84-74-2)		X							
278 2,4 Dinitro-toluene (121-14-2)		X							
288 2,6 Dinitro-toluene (86-20-2)		X							
298 Di-N-Octyl Phthalate (117-84-0)		X							
308 1,2-Diphenyl-hydrazine (45-42-7; benzene) (122-66-7)		X							
318 Fluoranthene (136-44-0)		X							
328 Fluorene (86-73-7)		X							
338 Hexa-chlorobenzene (118-71-1)		X							
348 Hexa-chlorobutadiene (87-68-3)		X							
358 Hexachloro-cyclopentadiene (177-47-4)		X							
368 Hexachloro-ethane (67-72-1)		X							
378 Indeno (1,2,3-cd) Pyrene (193-39-5)		X							
388 Isophorone (78-59-1)		X							
398 Naphthalene (91-20-3)		X							
408 Nitrobenzene (98-95-3)		X							
418 N Nitro-sodiumethylamine (62-75-9)		X							
428 N Nitrosob-N Propylamine (62-164-7)		X							

CONTINUE ON REVERSE

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	a. TEST METHOD ID	b. USE LOGS SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS		b. NO. OF ANAL. YSES
				(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)</b>												
43B N Nitro-soprocyclamion (86-30-6)		X										
44B Phenanthrene (85-01-8)		X										
45B Pyrene (129-00-0)		X										
46B 1,2,4-Trinitrobenzene (150-82-1)		X										
<b>GC/MS FRACTION -- PESTICIDES</b>												
1P Ailanth (309-00-2)		X										
2P $\alpha$ -BHC (319-84-6)		X										
3P $\beta$ -BHC (319-85-7)		X										
4P $\gamma$ -BHC (58-89-9)		X										
5P $\delta$ -BHC (319-86-8)		X										
6P Chlorthane (57-74-9)		X										
7P 4,4'-DDE (50-29-3)		X										
8P 4,4'-DDE (72-55-9)		X										
9P 4,4'-DDD (72-54-8)		X										
10P Dieldrin (86-57-1)		X										
11P $\alpha$ -Endosulfan (115-29-7)		X										
12P $\beta$ -Endosulfan (115-29-7)		X										
13P Endosulfan Sulfate (1031-07-8)		X										
14P Endrin (72-30-8)		X										
15P Endrin Alderlyde (1-821-93-4)		X										
16P Heptachlor (76-44-8)		X										

CONTINUE ON PAGE 8



NPDES # (if assigned) MO-0098001  
 OUTFALL NUMBER 007

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	a. 1987 REQ'D EQ FD	b. 1988 LIVED PRE SERV	a. MAXIMUM DAILY VALUE		b. LONG TERM AVG. VALUE (if available)		c. NO OF ANAL- YSES	d. CONCN- TRATION	e. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION -- PESTICIDES (continued)												
175 Dieldrin E-1-08 1134-27-3		X										
187 PCB 1242 5-83-21-9		X										
192 PCB 1254 1-97-69-1		X										
225 PCB 1221 1-14-28-2		X										
272 PCB 1232 1-41-16-5		X										
305 PCB 1248 1-8-29-6		X										
339 PCB 1260 1-98-80-5		X										
348 PCB 1016 1-26-411-2		X										
359 Endrin 8-01-35-2		X										

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**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

<b>TABLE II</b>	OUTFALL NUMBER
NPDES # (If Assigned) <b>MO-0098001</b>	<b>008</b>

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER <small>(if available)</small>	2. MARK 'X'			3. EFFLUENT						4. UNITS			5. INTAKE <small>(optional)</small>		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE <small>(if available)</small>		c. LONG TERM AVG. VALUE <small>(if available)</small>		d. NO. OF ANALYSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>															
1M Antimony Total (7440-36-0)	X			<.01	<4E-5					1	mg/l	lbs/d			
2M Arsenic Total (7440-38-2)	X			<.01	<4E-5					1	mg/l	lbs/d			
3M Beryllium Total (7440-41-7)	X			<.001	<4E-6					1	mg/l	lbs/d			
4M Cadmium Total (7440-43-9)	X			<.001	<4E-6					1	mg/l	lbs/d			
5M Chromium Total (7440-47-3)	X			<.01	<4E-5					1	mg/l	lbs/d			
6M Copper Total (7550-50-8)	X			<.01	<4E-5					1	mg/l	lbs/d			
7M Lead Total (7439-97-6)	X			<.01	<4E-5					1	mg/l	lbs/d			
8M Mercury Total (7439-97-6)	X			<.0004	<2E-6					1	mg/l	lbs/d			
9M Nickel Total (7440-02-0)	X			<.1	<.0004					1	mg/l	lbs/d			
10M Selenium Total (7782-49-2)	X			<.01	<4E-5					1	mg/l	lbs/d			
11M Silver Total (7440-22-4)	X			<.01	<4E-5					1	mg/l	lbs/d			
12M Thallium Total (7440-28-0)	X			<.01	4E-5					1	mg/l	lbs/d			
13M Zinc Total (7440-66-6)	X			.4	.002					1	mg/l	lbs/d			
14M Cyanide Total (57-12-5)	X			<.1	<.0004					1	mg/l	lbs/d			
15M Phenols Total	X			<.001	<4E-6					1	mg/l	lbs/d			
<b>DIOXIN</b>															
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'			3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
	a. TEST NUMBER	b. NO. OF TESTS	c. NO. OF TESTS	a. MAXIMUM DAILY VALUE (1) (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) (2) MASS		c. LONG TERM AVG. VALUE (if available) (1) (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL. YSES
					(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>													
1V Aciphen (107-02-8)	X			< 7.5	< 3.1E-5				1	ug/l	lbs/d		
2V Acrylonitrile (107-13-1)	X			< 5.2	< 2.2E-5				1	ug/l	lbs/d		
3V Benzene (71-43-2)	X			< 4.4	< 1.8E-5				1	ug/l	lbs/d		
4V Bis (Chloro methyl) Ether (542-88-1)	X			< 5.8	< 2.4E-5				1	ug/l	lbs/d		
5V Bromobenzene (75-25-2)	X			< 4.7	< 2.0E-5				1	ug/l	lbs/d		
6V Carbon Tetrachloride (56-23-5)	X			< 2.8	< 1.2E-5				1	ug/l	lbs/d		
7V Chlorobenzene (108-90-7)	X			< 6.0	< 2.5E-5				1	ug/l	lbs/d		
8V Chloro-bromomethane (124-48-1)	X			< 3.1	< 1.3E-5				1	ug/l	lbs/d		
9V Chloroethane (75-00-3)	X			< 8.2	< 3.4E-5				1	ug/l	lbs/d		
10V 2-Chloro-ethylvinyl Ether (110-75-8)	X			< 2.6	< 1.1E-5				1	ug/l	lbs/d		
11V Chloroform (67-68-3)	X			< 1.6	< 6.6E-6				1	ug/l	lbs/d		
12V Dichloro-bromomethane (75-27-4)	X			< 2.2	< 9.2E-6				1	ug/l	lbs/d		
13V Dichloro-difluoroethane (75-71-8)	X			< 5.0	< 2.1E-5				1	ug/l	lbs/d		
14V 1,1-Dichloro-ethane (75-34-3)	X			< 4.7	< 2.0E-5				1	ug/l	lbs/d		
15V 1,2-Dichloro-ethane (107-06-2)	X			< 2.8	< 1.2E-5				1	ug/l	lbs/d		
16V 1,1-Du Fluor-ethylene (75-35-4)	X			< 2.8	< 1.2E-5				1	ug/l	lbs/d		
17V 1,2-Du Fluor-propylene (28-87-2)	X			< 6.0	< 2.5E-5				1	ug/l	lbs/d		
18V 1,2-Du Fluor-propylene (542-75-6)	X			< 4.0	< 4.7E-5				1	ug/l	lbs/d		
19V Ethylbenzene (100-41-4)	X			< 7.2	< 3.0E-5				1	ug/l	lbs/d		
20V Methyl Bromide (74-83-3)	X			< 1.2	< 5.0E-6				1	ug/l	lbs/d		
21V Methyl Chloride (74-87-3)	X			< 1.0	< 4.2E-6				1	ug/l	lbs/d		

CONTINUED FROM PAGE 3

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)					
	6. TEST METHOD	7. M. L. LIQUID (LBS PER GALLON)	8. MAXIMUM DAILY VALUE (CONCENTRATION)	9. MAXIMUM 30 DAY VALUE (CONCENTRATION)	10. LONG TERM AVRS. VALUE (CONCENTRATION)	11. NO. OF ANAL. YSES	12. CONCENTRATION	13. MASS	14. LONG TERM AVERAGE VALUE (CONCENTRATION)	15. MASS	16. NO. OF ANAL. YSES	
<b>GC/MS FRACTION -- VOLATILE COMPOUNDS (continued)</b>												
22V METHYLENE Chloride (15-00-2)	X		< 2.8			1	ug/l	lbs/d				
23V 1,1,2,2-tetra-chloroethane (19-34-5)	X		< 2.9E-5			1	ug/l	lbs/d				
24V Tetrachloro-ethylene (127-18-4)	X		< 1.7E-5			1	ug/l	lbs/d				
25V Toluene (108-88-3)	X		< 2.5E-5			1	ug/l	lbs/d				
26V 1,2-Di-chloroethane (156-80-3)	X		< 1.6			1	ug/l	lbs/d				
27V 1,1,1-Trichloroethane (71-55-8)	X		< 3.8			1	ug/l	lbs/d				
28V 1,1,2-Trichloroethane (78-07-3)	X		< 5.0			1	ug/l	lbs/d				
29V Trichloro-ethylene (78-01-4)	X		< 1.9			1	ug/l	lbs/d				
30V Trichloro-fluoromethane (75-08-4)	X		< 6.5			1	ug/l	lbs/d				
31V Vinyl Chloride (75-01-4)	X		< 1.3			1	ug/l	lbs/d				
<b>GC/MS FRACTION -- ACID COMPOUNDS</b>												
1A 2-Carboxyphenol (95-57-8)	X		< 3.3			1	ug/l	lbs/d				
2A 2,4-Dichloro-phenol (120-83-2)	X		< 2.7			1	ug/l	lbs/d				
3A 2,4-Dimethyl-phenol (105-67-9)	X		< 2.7			1	ug/l	lbs/d				
4A 4,6-Dinitro-0-Cresol (54-52-1)	X		< 24			1	ug/l	lbs/d				
5A 2,4-Dinitro-phenol (51-28-5)	X		< 42			1	ug/l	lbs/d				
6A 2-Nitrophenol (88-75-3)	X		< 3.6			1	ug/l	lbs/d				
7A 4-Nitrophenol (110-02-7)	X		< 2.4			1	ug/l	lbs/d				
8A 2-Chloro-0-Cresol (54-50-7)	X		< 3.0			1	ug/l	lbs/d				
9A Pentachloro-phenol (87-86-5)	X		< 3.6			1	ug/l	lbs/d				
10A Picric Acid (108-46-2)	X		< 1.5			1	ug/l	lbs/d				
11A 2,4,6-Trichlorophenol (88-07-2)	X		< 2.7			1	ug/l	lbs/d				

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. TEST NO.	b. NO. OF LUBRICATING OILS	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVRG VALUE (3) CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANAL. YSES	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANAL. YSES	
												(1) CONCENTRATION
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>												
18 Acenaphthene (83-32-9)		X										
26 Acenaphthylene (208-96-3)		X										
30 Anthracene (120-12-7)		X										
48 Benzidine (92-87-5)		X										
56 Benzol (a) Anthracene (56-55-3)		X										
68 Benzol (a) Pyrene (50-12-8)		X										
78 3,4-Benzofluoranthene (205-99-2)		X										
88 Benzol (g)u Perylene (191-24-2)		X										
98 Benzol (k) Fluoranthene (207-08-9)		X										
108 Bis (2-Chloro-ethyl) Methane (111-91-1)		X										
118 Bis (2-Chloro-ethyl) Ether (111-44-4)		X										
128 Bis (2-Chloro-ethyl) Ether (296-08-2-9)		X										
138 Bis (2-Ethylhexyl) Phthalate (117-81-7)		X										
148 4-Bromophenyl Phenyl Ether (101-55-3)		X										
158 Butyl Benzyl Phthalate (85-08-7)		X										
168 7-Chloro-naphthalene (131-58-7)		X										
178 4-Chloro-phenyl Phenyl Ether (1005-72-3)		X										
188 Chrysene (218-01-9)		X										
198 Dibenzol (e) Anthracene (53-70-3)		X										
208 1,2-Dichlorobenzene (95-50-1)		X										
218 1,3-Dichlorobenzene (541-73-1)		X										

NPDES # (If Assigned) MO-0098001  
 OUTFALL NUMBER 008

CONTINUED FROM PAGE 5

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. YRS.	
	A. (1) INC. REQ. LB	B. (2) PNC. REQ. LB	C. (1) CONCENTRATION	D. (2) MASS	E. (1) CONCENTRATION	F. (2) MASS	G. (1) CONCENTRATION	H. (2) MASS		
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
208 1,4-Dichloro-benzene (95-46-7)			X							
208 3,3-Dichloro-benzene (91-94-1)			X							
248 Diethyl Phthalate (84-66-7)			X							
258 Dimethyl Phthalate (133-11-3)			X							
268 Di-N-Butyl Phthalate (84-74-2)			X							
278 2,4-Dinitro-toluene (121-14-2)			X							
280 2,6-Dinitro-toluene (686-20-2)			X							
298 Di-N-Octyl Phthalate (117-84-0)			X							
300 1,2-Diphenyl-hydrazine (as 42% benzene) (122-66-1)			X							
318 Fluoranthene (206-44-0)			X							
328 Fluorene (86-73-7)			X							
338 Hexa-chlorobenzene (118-71-1)			X							
348 Hexa-chlorobutadiene (87-68-3)			X							
358 Hexachloro-cyclohexadiene (1747-4)			X							
368 Hexachloro-ethane (87-72-1)			X							
378 Indeno (1,2,3-cd) Pyrene (193-39-5)			X							
388 Isophorone (78-59-1)			X							
398 Naphthalene (91-20-3)			X							
408 Nitrobenzene (98-95-3)			X							
418 N-Nitro-sodanethylaniline (62-75-9)			X							
428 N-Nitrosob-N-Propylamine (621-64-7)			X							

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. TEST NO. (if available)	B. NO. OF TESTS	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVE. VALUE (if available)		D. CONCENTRATION	E. 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	
<b>GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS (continued)</b>													
138 Nitro-subenzene/amine (85-30-6)		X											
448 Phenanthrene (85-01-8)		X											
458 Pyrene (129-07-0)		X											
468 1,2,4-Trichlorobenzene (120-81-1)		X											
<b>GC/MS FRACTION — PESTICIDES</b>													
1P Aldrin (309-00-2)		X											
2P α-BHC (319-84-6)		X											
3P β-BHC (319-85-1)		X											
4P γ-BHC (58-89-9)		X											
5P δ-BHC (319-86-8)		X											
6P Cis-Gene (52-74-3)		X											
7P 4,4'-DDE (150-28-3)		X											
8P 4,4'-DDE (172-55-9)		X											
9P 4,4'-DDE (172-54-8)		X											
10P Dieldrin (60-51-1)		X											
11P α-Endosulfan (1115-29-1)		X											
12P β-Endosulfan (1115-29-1)		X											
13P Endosulfan Sulfate (1031-07-8)		X											
14P Endrin (172-70-8)		X											
15P Endrin Aldehyde (1421-53-4)		X											
16P Heptachlor (176-44-8)		X											

CONTINUE ON PAGE 8

NPDES # (if assigned) **MO-0098001** **008**  
 OUTFALL NUMBER

1. POLLUTANT AND CAS NUMBER <i>(continued)</i>	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	a. TEST REQ'D	b. WE LIVED AB SENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVRG. VALUE (1) CONCENTRATION (2) MASS	d. NO OF ANAL. YSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION (2) MASS	b. NO OF ANAL. YSES
GC/MS FRACTION — PESTICIDES (continued)										
175 Dieldrin E: 408 S: 24 57 31		X								
187 PCB 1742 S: 49 21 91		X								
198 PCB 1254 S: 87 69 11		X								
209 PCB 1221 S: 14 26 21		X								
212 PCB 1232 S: 41 16 51		X								
220 PCB 1248 S: 72 29 61		X								
237 PCB 1260 S: 14 82 51		X								
247 PCB 1016 S: 26 4 11 21		X								
252 Total Arochlor S: 01 25 21		X								



**APPLICATION FOR DISCHARGE PERMIT  
Form D — Primary Industries**

<b>TABLE II</b>	
NPDES # (If Assigned) <b>MO-0098001</b>	OUTFALL NUMBER <b>009</b>

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A 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. 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 to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven 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)		b. NO OF ANALYSES	
	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			
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
<b>METALS, CYANIDE, AND TOTAL PHENOLS</b>																
1M Antimony Total (7440-36-0)	X			<.01	<.0005					1	mg/l	lbs/d				
2M Arsenic Total (7440-38-2)	X			<.01	<.0005					1	mg/l	lbs/d				
3M Beryllium Total (7440-41-7)	X			<.001	<.00005					1	mg/l	lbs/d				
4M Cadmium Total (7440-43-9)	X			.008	.0004					1	mg/l	lbs/d				
5M Chromium Total (7440-47-3)	X			<.01	<.0005					1	mg/l	lbs/d				
6M Copper Total (7550-50-8)	X			<.01	<.0005					1	mg/l	lbs/d				
7M Lead Total (7439-97-6)	X			<.01	<.0005					1	mg/l	lbs/d				
8M Mercury Total (7439-97-6)	X			<.0004	<.00002					1	mg/l	lbs/d				
9M Nickel Total (7440-02-0)	X			<.1	<.005					1	mg/l	lbs/d				
10M Selenium Total (7782-49-2)	X			<.01	<.0005					1	mg/l	lbs/d				
11M Silver Total (7440-22-4)	X			.03	.002					1	mg/l	lbs/d				
12M Thallium Total (7440-28-0)	X			.02	.001					1	mg/l	lbs/d				
13M Zinc Total (7440-66-6)	X			<.1	<.005					1	mg/l	lbs/d				
14M Cyanide Total (57-12-5)	X			<.1	<.005					1	mg/l	lbs/d				
15M Phenols Total	X			<.001	<.00005					1	mg/l	lbs/d				
<b>DIOXIN</b>																
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. TEST REQ. RE-QUINED	b. BE LIEVED PRE-SENT	c. BE LIEVED AD-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANAL-YSES	e. CONCENTRATION	f. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>															
1V Acetone (107-02-8)	X			<7.5	<3.7E-4					1	ug/l	lbs/d			
2V Acrylonitrile (107-13-1)	X			<5.2	<2.6E-4					1	ug/l	lbs/d			
3V Benzene (71-43-2)	X			<4.4	<2.2E-4					1	ug/l	lbs/d			
4V Bis (Chloromethyl) Ether (542-88-1)	X			<5.8	<2.9E-4					1	ug/l	lbs/d			
5V Bromoform (75-25-2)	X			<4.7	<2.2E-4					1	ug/l	lbs/d			
6V Carbon Tetrachloride (56-23-5)	X			<2.8	<1.4E-4					1	ug/l	lbs/d			
7V Chlorobenzene (108-90-7)	X			<6.0	<3.0E-4					1	ug/l	lbs/d			
8V Chlorobromomethane (124-48-1)	X			<3.1	<1.6E-4					1	ug/l	lbs/d			
9V Chloroethane (75-00-3)	X			<8.2	<4.1E-4					1	ug/l	lbs/d			
10V 2-Chloroethylvinyl Ether (110-75-8)	X			<2.6	<1.3E-4					1	ug/l	lbs/d			
11V Chloroform (67-66-3)	X			<1.6	<8.0E-5					1	ug/l	lbs/d			
12V Dichlorobromomethane (75-27-4)	X			<2.2	<1.1E-4					1	ug/l	lbs/d			
13V Dichlorodibromomethane (75-71-8)	X			<5.0	<2.5E-4					1	ug/l	lbs/d			
14V 1,1-Dichloroethane (75-34-3)	X			<4.7	<2.4E-4					1	ug/l	lbs/d			
15V 1,2-Dichloroethane (107-06-2)	X			<2.8	<1.4E-4					1	ug/l	lbs/d			
16V 1,1-Dichloroethylene (75-35-4)	X			<2.8	<1.4E-4					1	ug/l	lbs/d			
17V 1,2-Dichloropropane (78-07-5)	X			<6.0	<3.0E-4					1	ug/l	lbs/d			
18V 1,2-Dichloropropylene (542-75-6)	X			<4.0	<2.0E-4					1	ug/l	lbs/d			
19V Ethylbenzene (100-41-4)	X			<7.2	<3.6E-4					1	ug/l	lbs/d			
20V Methyl Bromide (74-83-9)	X			<1.2	<6.0E-5					1	ug/l	lbs/d			
21V Methyl Chloride (74-87-3)	X			<1.0	<5.0E-5					1	ug/l	lbs/d			

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK X		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		b. NO. OF ANAL. YSES
	a. TESTING REQUIRED (S)	b. BE LIQUID (S)	a. MAXIMUM DAILY VALUE (S) MASS CONCENTRATION	b. MAXIMUM 30 DAY VALUE (S) MASS CONCENTRATION	c. LONG TERM AVRS VALUE (if available) (S) MASS CONCENTRATION	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (S) MASS CONCENTRATION	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS (continued)</b>									
22V Methylene Chloride (75-26-2)	X		< 2.8	< 1.4E-4		1	1bs/d		
23V 1,1,2,2-Tetra-chloroethane (78-34-3)	X		< 6.9	< 3.5E-4		1	1bs/d		
24V Tri-chloro-ethylene (127-18-4)	X		< 4.1	< 2.1E-4		1	1bs/d		
25V Toluene (108-88-3)	X		< 6.0	< 3.0E-4		1	1bs/d		
26V 1,2-Trans-Dichloroethylene (156-85-5)	X		< 1.6	< 8.0E-5		1	1bs/d		
27V 1,1,1-Trichloroethane (71-55-4)	X		< 3.8	< 1.9E-4		1	1bs/d		
28V 1,1,2-Trichloroethane (78-10-3)	X		< 5.0	< 2.5E-4		1	1bs/d		
29V Trichloroethylene (78-01-8)	X		< 1.9	< 9.5E-5		1	1bs/d		
30V Trichloroethylene (75-85-4)	X		< 6.5	< 3.3E-4		1	1bs/d		
31V Vinyl Chloride (75-01-4)	X		< 1.3	< 6.5E-5		1	1bs/d		
<b>GC/MS FRACTION - ACID COMPOUNDS</b>									
3A 2-Chlorophenol (85-57-8)	X		< 3.3	< 1.7E-4		1	1bs/d		
3B 2,4-Dichlorophenol (105-83-2)	X		< 2.7	< 1.4E-4		1	1bs/d		
3C 2,4-Dimethylphenol (105-67-9)	X		< 2.7	< 1.4E-4		1	1bs/d		
4A 4,6-Dinitro-Ortho-Cresol (534-52-1)	X		< 24	< .0012		1	1bs/d		
5A 2,4-Dinitrophenol (51-28-5)	X		< 42	< .0021		1	1bs/d		
6A 2-Nitrophenol (88-75-3)	X		< 3.6	< 1.8E-4		1	1bs/d		
7A 4-Nitrophenol (100-02-7)	X		< 2.4	< 1.2E-4		1	1bs/d		
8A P-Chlorophenol (87-86-5)	X		< 3.0	< 1.5E-4		1	1bs/d		
9A p-Toluenesulfonic acid (95-46-7)	X		< 3.6	< 1.8E-4		1	1bs/d		
10A Phenol (108-95-2)	X		< 1.5	< 7.5E-5		1	1bs/d		
11A 2,4,6-Trichlorophenol (88-46-3)	X		< 2.7	< 1.4E-4		1	1bs/d		

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND GAS NUMBER (if available)	2. MARK 'X'		3. EFFLUENT				4. UNITS				5. INTAKE (optional)	
	a. TEST METHOD (if available)	b. HAZARDOUS (if available)	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVG. VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANAL. YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	b. NO. OF ANAL. YSES		
	GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS											
18 Acrylonitrile (63-12-9)		X										
26 Acetylbenzene (106-96-0)		X										
30 Anthracene (152-12-7)		X										
40 Benzene (71-43-2)		X										
50 Benzene (71-43-2)		X										
60 Benzene (71-43-2)		X										
70 Benzene (71-43-2)		X										
80 Benzene (71-43-2)		X										
90 Benzene (71-43-2)		X										
100 Benzene (71-43-2)		X										
110 Benzene (71-43-2)		X										
120 Benzene (71-43-2)		X										
130 Benzene (71-43-2)		X										
140 Benzene (71-43-2)		X										
150 Benzene (71-43-2)		X										
160 Benzene (71-43-2)		X										
170 Benzene (71-43-2)		X										
180 Benzene (71-43-2)		X										
190 Benzene (71-43-2)		X										
200 Benzene (71-43-2)		X										
210 Benzene (71-43-2)		X										
220 Benzene (71-43-2)		X										
230 Benzene (71-43-2)		X										
240 Benzene (71-43-2)		X										
250 Benzene (71-43-2)		X										
260 Benzene (71-43-2)		X										
270 Benzene (71-43-2)		X										
280 Benzene (71-43-2)		X										
290 Benzene (71-43-2)		X										
300 Benzene (71-43-2)		X										

NPDES # (If Assigned) NO-0098001

OUTFALL NUMBER 009

CONTINUED FROM PAGE 5

3. EFFLUENT

1. POLLUTANT AND GAS NUMBER GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)	2. MARK 'X'		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		6. NO. OF ANAL. TYPES	
	a. TEST NO.	b. TEST DATE	c. MAXIMUM DAILY VALUE (1) CONCENTRATION	d. MAXIMUM 30 DAY VALUE (2) CONCENTRATION	e. LONG TERM AVG. VALUE (3) CONCENTRATION	f. CONCEN- TRATION	g. MASS	h. LONG TERM AVERAGE VALUE (1) CONCENTRATION		i. MASS
208 1,4-Dioxin Benzene (106, 46, 7)										
209 1,1-Dichloro Ethylene (91, 14, 1)	X									
210 Diethyl Phthalate (81, 66, 2)	X									
211 Dimethyl Phthalate (103, 11, 3)	X									
212 Di-N-butyl Phthalate (84, 11, 2)	X									
218 2,4-Dinitro Toluene (123, 14, 2)	X									
219 2,6-Dinitro Toluene (66, 26, 2)	X									
240 Di-N-butyl Phthalate (111, 84, 0)	X									
308 1,2-Diphenyl Hydrazine, o, o', 4, 4' Disubstituted (142, 86, 7)	X									
310 Fluoranthene (106, 84, 0)	X									
311 Fluorene (96, 12, 1)	X									
318 Hexa Chlorocyclohexene (118, 11, 1)	X									
319 Hexa Chlorobutadiene (81, 66, 3)	X									
320 Hexachloro 1,2,3,4,6,7,8-heptachloro (111, 11, 4)	X									
321 Hexachloro ethane (87, 12, 3)	X									
322 Indene 1,2,3,4,6,7,8-Pyrene (153, 39, 8)	X									
323 Naphthalene (11, 20, 3)	X									
324 Naphthalene (11, 20, 3)	X									
325 Naphthalene (11, 20, 3)	X									
326 Naphthalene (11, 20, 3)	X									
327 Naphthalene (11, 20, 3)	X									
328 Naphthalene (11, 20, 3)	X									
329 Naphthalene (11, 20, 3)	X									
330 Naphthalene (11, 20, 3)	X									
331 Naphthalene (11, 20, 3)	X									
332 Naphthalene (11, 20, 3)	X									
333 Naphthalene (11, 20, 3)	X									
334 Naphthalene (11, 20, 3)	X									
335 Naphthalene (11, 20, 3)	X									
336 Naphthalene (11, 20, 3)	X									
337 Naphthalene (11, 20, 3)	X									
338 Naphthalene (11, 20, 3)	X									
339 Naphthalene (11, 20, 3)	X									
340 Naphthalene (11, 20, 3)	X									
341 Naphthalene (11, 20, 3)	X									
342 Naphthalene (11, 20, 3)	X									
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381 Naphthalene (11, 20, 3)	X									
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385 Naphthalene (11, 20, 3)	X									
386 Naphthalene (11, 20, 3)	X									
387 Naphthalene (11, 20, 3)	X									
388 Naphthalene (11, 20, 3)	X									
389 Naphthalene (11, 20, 3)	X									
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391 Naphthalene (11, 20, 3)	X									
392 Naphthalene (11, 20, 3)	X									
393 Naphthalene (11, 20, 3)	X									
394 Naphthalene (11, 20, 3)	X									
395 Naphthalene (11, 20, 3)	X									
396 Naphthalene (11, 20, 3)	X									
397 Naphthalene (11, 20, 3)	X									
398 Naphthalene (11, 20, 3)	X									
399 Naphthalene (11, 20, 3)	X									
400 Naphthalene (11, 20, 3)	X									

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. M/BK 'X'		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A. TEST NUMBER (if available)	B. USES (if available)	A. MAXIMUM DAILY VALUE (continued)		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVG. VALUE (if available)	D. NO. OF ANAL. YES	A. LONG TERM AVERAGE VALUE	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
<b>GC/MS FRACTION -- BA/E/NEUTRAL COMPOUNDS (continued)</b>										
43B N Nitro benzopyrene (86-30-6)		X								
44B Phenanthrene (85-91-8)		X								
45B Pyrene (129-0-0)		X								
46B 1,2,4-Tris chlorobenzene (120-82-1)		X								
<b>GC/MS FRACTION -- PESTICIDES</b>										
1P Aldrin (369-00-2)		X								
2P D DHC (319-84-0)		X								
3P B BHC (319-85-1)		X								
4P Y BHC (58-89-9)		X								
5P B BHC (319-86-8)		X								
6P Chlordane (57-74-9)		X								
7P 4,4'-DDE (50-29-3)		X								
8P 4,4'-DDE (72-55-8)		X								
9P 4,4'-DDE (72-54-8)		X								
10P Dieldrin (60-51-1)		X								
11P D Endosulfan (115-29-7)		X								
12P B Endosulfan (115-29-7)		X								
13P Endosulfan Sulfate (1031-07-8)		X								
14P Endrin (72-70-8)		X								
15P Endrin Anhydride (7821-51-4)		X								
16P Heptachlor (78-44-8)		X								

CONTINUE ON PAGE 8

NPDES # (if assigned) **HO-0098001** BUTTALL NUMBER **009**

CONTINUED FROM PAGE 7

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK 'X'		3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
	A. TEST METHOD	B. NO. OF TESTS	C. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	D. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	E. LONG TERM AVRG. VALUE (1) CONCENTRATION (2) MASS	F. CONCENTRATION	G. MASS	H. NO OF ANALYSES	I. CONCENTRATION	J. MASS	K. NO OF ANALYSES	
<b>66/MS FRACTION -- PESTICIDES (continued)</b>												
177 Dieldrin EPA 816-F-73-010		X										
67 PCB 1242 5-49-71-8		X										
59 PCB 1254 7-87-69-11		X										
29 PCB 1221 7-11-78-21		X										
23 PCB 1232 7-11-78-21		X										
28 PCB 1248 7-87-29-6		X										
29 PCB 1260 7-87-29-6		X										
49 PCB 1016 7-87-29-6		X										
29 Toxaphene 8-81-35-3		X										

**2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS**

A. Is any pollutant listed in Item 1.30 a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufacture as an intermediate or final product or byproduct?

**YES** (list all such pollutants below)

**NO** (go to B)

The following substances are used in our chemical laboratories and might be present in trace quantities in our discharges (see attachment E); Antimony, Chromium, Copper, Lead, Mercury, Nickel, Phenols and Silver.

The following solvents are used on the plant site but are not believed present in our discharges; Trichloroethane, Trichloroethene, Tetrachloroethene, Toluene, and Methylene Chloride.

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may during the next 5 years exceed two times the maximum values reported in Item 1.30?

**YES** (complete C below)

**NO** (go to Section 3.00)

C. If you answered "Yes" to Item B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

Waste streams can be expected to exhibit variability as the result of varying influent water quality. Variability in intake water quality due to the effects of rainfall, runoff and upstream pollutant discharges might cause the discharge value on a gross basis to exceed two times the maximum values reported in Item 1.30.

**3.00 CONTRACT ANALYSIS INFORMATION**

Were any of the analyses reported in 1.30 performed by a contract laboratory or consulting firm?

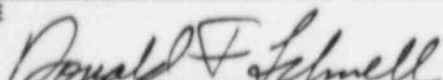
**YES** (list the name, address, and telephone number of, and analyzed by, each such laboratory or firm below)

**NO** (go to 4.00)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (ref)
Controls For Environmental Pollution	P.O. Box 5351 Santa Fe, N.M. 87502	800-545-2188	See Attachment F

**4.00 CERTIFICATION**

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 individuals immediately responsible for obtaining the information, 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.

<b>A. NAME &amp; OFFICIAL TITLE</b> (type or print) D. F. Schnell, Vice President-Nuclear	<b>B. PHONE NO.</b> (area code & no.) (314) 554-2650
<b>C. SIGNATURE</b> 	<b>D. DATE SIGNED</b> 2/1/85



Attachment A  
Description of Outfalls

001) Radwaste Treatment System.

This system serves to collect, process, store, recycle and dispose of liquid radioactive waste generated at Callaway. Five general sub-systems can be defined as described below.

The Boron Recycle System receives reactor coolant for the purpose of recovering the boric acid for reuse in the plant. Boric acid is used as a neutron absorber/moderator in the primary loop.

The Liquid Radwaste System collects and processes floor and equipment drains from the containment, auxiliary building, fuel building and radwaste buildings.

The Laundry and Hot Shower system treats waste generated from washing radioactively contaminated protective gear and clothing and personnel decontamination shower wastewater.

The Secondary Liquid Waste system is used to process condensate demineralizer regeneration wastes and potentially radioactive liquid waste collected from the turbine building. The condensate demineralizer regeneration waste is divided into two wastestreams; High TDS waste from the acid and caustic rinses used when chemically regenerating spent resin, and low TDS waste which results from the initial backflushing of unregenerated resin and the final rinsing of the regenerated resin to remove acid and caustic.

Steam Generator Blowdown is normally demineralized and recycled to the main condenser for reuse in the secondary cycle. Provisions also exist to discharge the treated blowdown via 001.

It should be noted that the radwaste treatment system is specifically designed for flexibility to achieve Nuclear Regulatory Commission (NRC) limitations. Actual treatment for any given batch of wastewater is dictated by the following criteria.

- 1) The level of radiological contamination and the corresponding NRC mandated discharge criteria.
- 2) The NPDES permit discharge limitations.
- 3) The most effective waste treatment scheme that will give the smallest volume of solid radwaste.

- 4) Overall wastestream management--processing and holdup rates, volumes of other wastestreams requiring treatment or storage, etc.
- 5) The need, feasibility and economics of the recycle versus discharge options.

The following wastewater treatment systems are used as required to treat this wastestream for recycle or discharge in compliance with NRC requirements and are also available as auxiliary or backup treatment systems to treat this discharge for compliance with NPDES permit limitations: Evaporation and/or Mixing and/or Filtration and/or Carbon Adsorption and/or Ion Exchange and/or Neutralization and/or Reuse/Recycle of Treated Effluent.

002) Cooling Tower Blowdown

A cooling tower is utilized to dissipate excess heat to the atmosphere from the Circulating and Service Water Systems. Outfall 002 is designated as the cooling tower blowdown discharge. Blowdown from the cooling tower is necessary to maintain dissolved solids concentration in the recirculating water within acceptable operating limits.

003) Water Treatment Plant Blowdown

The water treatment plant supplies clarified river water for cooling tower makeup and various other plant water systems. The suspended material which is removed from the river water is withdrawn from the bottom of the clarifiers as sludge. This wastestream, the water treatment plant blowdown, is designated as Outfall 003. The existing permit limitations are restrictive to the extent that direct discharge is not possible. Current practice at the plant is to route clarifier sludge to a sedimentation lagoon with the supernatant recycled to the head of the water treatment plant. Filter backwash from the sand and carbon filters in the plants demineralized water system is also a component of this outfall. Refer to attachment B for details concerning other potential discharge mechanisms.

004) Demineralizer System Wastes

The demineralized water system (DWS) is used to produce the high quality makeup water required by some plant processes. A well on the plant site is used as the water source for the DWS. Outfall 004 consists of wastes generated from resin regeneration and miscellaneous wastes from floor drainage and wet well overflows. These waste streams will be routed to a sedimentation pond prior to discharge.

005) Oil Separator Discharge

The discharge from Outfall 005 emanates from the Oily Wastewater Separator System (OWSS), which receives, treats and discharges nonradioactive, potentially oily wastewater from nonradioactive areas of the power block and fire pumphouse. The wastewater will consist of monitoring effluent, washdowns, equipment leakage and maintenance drainage. In the event of a fire in the power block, firefighting runoff will be discharged to the OWSS.

006) Circulating and Service Water Pumphouse Oil Separator and Neutralization Sump

Outfall 006 has been eliminated and deleted from the permit by a modification dated June 23, 1981.

007) Sanitary Treatment Plant

Outfall #007 is defined as the sanitary wastewater treatment system discharge. The existing system consists of two 25,000 gallon aerated surge tanks, two 20,000 gallon per day extended aeration treatment units and a 7,500 gallon sludge holding tank. The STP sludge is currently trucked to the city of Columbia treatment plant for further treatment, and disposal.

008) Chemical Water Treatment Unit

Wastewater in Outfall 008 originates in the Cooling Water Chemical Control System (CWCCS) building, and results from water softener operation for support of sodium hypochlorite generation. Sodium hypochlorite is used as a biocide in the Circulating and Service Water Systems.

009) Intake Heater Blowdown

Outfall 009 was redefined by permit modification dated December 13, 1983. The river intake structure contains two recirculating electric heaters which are used to prevent ice formation on the intake bar screens during the winter months. Discharges occur during the infrequent blowdown or annual/biannual drainage of these boilers.

Note that outfalls 001 through 008 all discharge into a combined discharge pipeline which terminates at the Missouri River adjacent to the

plant intake structure. The attached table lists the legal description of each outfall location.

Legal Description - Outfalls

<u>Outfall</u>	<u>1/4</u>	<u>1/4</u>	<u>Sec</u>	<u>T</u>	<u>R</u>
001	NE	NE	14	46N	8W
002	NW	NW	13	46N	8W
003	SW	NW	13	46N	8W
004	SE	SW	13	46N	8W
005	SW	NW	13	46N	8W
007	NE	SE	14	46N	8W
008	NE	NE	14	46N	8W
009	NW	NW	5	45N	7W

Attachment B  
Clarifier Blowdown Discharge Options  
(Outfall 003)

As the DNR is aware, in May of 1980, Union Electric Company (UE) requested a "fundamentally different factors" (FDF) variance to allow it to return clarifier blowdown and filter backwash discharges from the water treatment plant directly to the Missouri River through the combined discharge line. Because of some initial confusion at the U.S. Environmental Protection Agency (EPA) Region VII, no decision was reached prior to issuance of the present NPDES permit on August 8, 1980. Accordingly, the present permit imposes limitations on TSS that preclude return of clarifier blowdown to the river. It was contemplated at that time, however, that the permit would be modified to incorporate the FDF variance, when granted.

Throughout extended consideration of the FDF variance by EPA, both the Missouri DNR and EPA Region VII have recommended approval of the variance. In a February 9, 1983 letter to Dr. Allan S. Abramson, EPA Region VII, Mr. Hentges transmitted the NPDES permit conditions that DNR would implement for Outfall 003 when the variance is finally granted. EPA Headquarters personnel have raised questions about the "existing source" status of the Callaway Plant that requires EPA access to equipment vendor contracts claimed by the vendors as confidential and proprietary information. Due to the long delays in securing vendor approval for release of the contract provisions to EPA, which was only recently granted, there is still no final approval of the FDF variance. UE is hopeful, however, of obtaining approval of the FDF variance prior to issuance of the renewal NPDES permit. UE therefore requests incorporation into the renewal NPDES permit of the Outfall 003 conditions stated in Mr. Hentges' February 9, 1983 letter.

In the absence of an FDF variance or other relief, UE is presently routing clarifier blowdown to a settling pond for removal of TSS. Supernatant from the pond is drawn off under normal operations and recycled to the head of the water treatment plant. The removed TSS is retained in the settling pond. However, it may not always be possible to recycle some or all of the supernatant from the settling ponds. For this reason, UE requests retention of the designation for Outfall 003 in the present permit and authorization to discharge supernatant including clarifier blowdown and filter backwash water, from the settling ponds.

In the event that no FDF variance is granted prior to reissuance of the NPDES permit, UE further requests that limitations for Outfall 003 be established on the basis of best engineering judgment (BEJ). Currently applicable federal EPA regulations at 40 C.F.R. Part 423 (1983) specify "best available technology" (BAT) for designated priority pollutants and non-conventional pollutants, but set no effluent limitations for conventional pollutants for renewal permits issued under BAT rules. In-

stead, 40 C.F.R. & 423.14 (1983) reserves the "best conventional technology" (BCT) effluent limitations for later adoption and implementation. Since TSS and oil and grease (O&G), are bot. conventional pollutants, 40 C.F.R. & 401.16 (1983), the DNR has discretion to set BEJ limits for these pollutants in the reissued NPDES permit. In light of the fact that all regulatory authorities involved in the FDF variance proceedings have agreed that the most desirable and feasible treatment of Outfall 003 discharges at Callaway Plant is return of the suspended solids to the river, UE requests BEJ limits equivalent to those stated in Mr. Hentges' February 9, 1983 letter. Such limits would also be consistent with the DNR's practice for other water treatment plants throughout the state.

Attachment C  
Description of Intermittent  
Flows

Six of the eight outfalls defined in this application can be considered to include intermittent discharges since they process and/or release wastewater in discrete batches. Each is described below.

001 - Radwaste Treatment - All of the subsystems described in Attachment A, except steam generator blowdown, process or release discrete batches of wastewater. The frequency and magnitude of each is highly variable. However, discharge flow rates are relatively constant. Existing equipment produces discharge flows of approximately 100 gpm. New tanks currently under construction will be capable of discharging at approximately 200 gpm.

During recovery from major plant outages and other unusual transient conditions, it may be necessary to discharge steam generator blowdown. The discharge flow rate varies up to 360 gpm, resulting in a maximum daily discharge flow of up to 518,400 gallons. As this discharge is anticipated very infrequently, the steam generator blowdown flow was not included in the maximum flows shown in Form C, Item 2.40. Steam generator blowdown is typically treated by demineralization. Test data from a sample taken in December, 1984 (during recycle) represents the typical blowdown water quality:

- Form C Table A Parameters -

BOD	9 mg/l
COD	10.7 mg/l
TOC	13 mg/l
Ammonia	<0.1 mg/l

- Form C Table B Parameters (measurable)

Oil and Grease	0.25 mg/l
Sulfate	2 mg/l
Iron	0.03 mg/l

- All other parameters tested (the same as those identified for outfall 001) were below the method limit of detection. This includes all 13 toxic metals, cyanide, phenol, and the GC/MS volatiles and Acid Extractable fractions.

003 - Clarifier Blowdown - The clarifier blowdown effluent flume is continuously flushed (approx 200 gpm) with raw river water to prevent solids blockage. However actual clarifier blowdown is intermittent. Blowdown rate is relatively constant, but duration and frequency can vary depending on river suspended solids concentration and plant water demands. The DWS sand and carbon filter backwashes are also intermittent based on the variation in treated water demands. Currently the sand filters are not in use, because well water is being used as the raw

water source. The carbon filters are currently backflushed once per week, generating 6,000 gallons from each of two filter beds.

004 - Demineralized Water System - Effluent from this process is collected in a neutralization tank for pH adjustment, before being batch released to a lagoon for further sedimentation treatment. An existing clarifier sludge pond has recently been modified for this purpose. Use of the lagoon will moderate the discharge of these batch releases.

005 - Oily Waste Separator System - This treatment unit operates in a intermittent mode, at a fixed rate of 100 gpm. The frequency of operation is highly variable based on influent flows from many diverse locations.

008 - Circulating Water Chemical Control System - The only routine discharge from this system is from the regeneration of a water softener. It is an intermittent release with a total volume of approximately 500 gallons.

009 - Intake Heater Blowdown - Discharges from this outfall are seasonal and intermittent. During winter operational periods, it is estimated that blowdown will occur approximately once per week (less than 100 gallons). Anticipated annual drainage is approximately 6,000 gallons.

The flow values shown in Form C, Items 2.40 A and B reflect our current estimates of the normal, routine discharge frequency and volumes for these outfalls.



Attachment D  
Other Discharges

I. Separately Regulated Discharges

Storm water runoff (SWR) discharges from the Callaway Plant site are currently authorized under a separate permit. NPDES Permit #MO-0091537 defines seven outfalls which correspond to individual settling ponds built to control runoff from the construction site. This permit expires January 15, 1986.

Recently, federal regulations substantially altered the classification and permit requirements applicable to SWR discharges (see the Federal Register of September 26, 1984, revisions to 40 CFR Part 122).

As a result of these new regulations we intend to update and resolve the issue of stormwater runoff from Callaway Plant in separate correspondence with the Department of Natural Resources (DNR).

II. Other Discharges

- A. Intake Structure Stilling Basin - In a modification of this permit, dated December 13, 1983, the DNR redesignated Outfall 009, to apply to the intake structure electric heaters only. The basis of the change was the acknowledgment that the other discharges from the intake were not contaminated with process materials or wastes. We believe that this evaluation is still appropriate and request no change concerning the intake.
- B. Cooling Tower Bypass - As previously identified, there is a bypass valve between the cooling tower clarified water makeup line and the cooling tower blowdown line. This bypass supplies treated water to meet NRC dilution requirements for discharges from the radwaste treatment system when cooling tower blowdown by itself is insufficient to meet the dilution requirements. Dilution flow through the Bypass may vary from 0-10,000 gpm based on cooling tower blowdown flow and NRC limits.

As this discharge is the return of (clarified) river water back to river, it is our opinion that it does not meet the criteria necessary for permitting as an NPDES outfall.

Note that the startup and maintenance of our three clarifiers sometimes requires that we discharge treated or partially treated water. The Cooling Tower Bypass valve, or other permanent or temporary drainage connections may be used intermittently to release this off-specification (greater than 15 mg/l total suspended solids) river water. Since the quality of this water will be equivalent to our better than river water, we view such releases to be equivalent to those above.

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- C. Fire Protection Drain Test Connections - In accordance with the National Fire Protection Association's (NFPA) Standard, fire protection drain connections are tested on a quarterly basis. The test consists of opening valves and monitoring the water delivery rates. Approximately 40 such connections are located throughout the plant. A number of these cannot be discharged into the areas in which they are located as it would create a nuisance or hazard to the local equipment or personnel. Therefore, temporary or permanent pipes or hoses are used to divert this water outside various buildings into adjacent grounds. The water source is two fire protection tanks containing only filtered groundwater from the demineralized water system. In addition, maintenance requirements for these tanks require draining and refilling approximately once every five years. Each of these tanks has a capacity of 300,000 gallons.
- D. Demineralized Water Storage Tank - On infrequent occasions, these tanks may become contaminated with low levels of silica from the makeup demineralizers. If this occurs, this water cannot be used as makeup to the plant and, therefore, must be directed to waste. The tank is drained to the stormwater runoff system at a rate of approximately 50-100 gpm. The total volume is 50,000 gallons per tank (two total). Overall water quality is high, with typical TSS of < 1 mg/l and pH in the range of 6 to 8.
- E. Ultimate Heat Sink (UHS) Pond - Callaway Plant has a single water retention pond which serves as the ultimate heat sink (UHS) for the Essential Service Water System (ESWS). The ESWS provides water for cooling of safety related equipment and is utilized in the event the Service Water System becomes inoperable. When the ESWS is operating, water is pumped from the UHS pond through power block equipment, a mechanical draft cooling tower, and back to the pond. The UHS pond has a spillway which is connected to the plant stormwater runoff system. Makeup water for the UHS pond is supplied by the treated water plant and is added when the pond level drops below a 2 foot freeboard as measured from the UHS spillway. Makeup water to the pond ceases once an 18 inch freeboard level is reached. There is a high water level alarm on the pond which is set at a 12 inch freeboard. In the event water levels were to increase in the pond, levels would be reduced by pumping water from the pond to the cooling tower basin through the ESWS. We do not anticipate any releases from the UHS pond.

Attachment E  
Chemical Usage

The various chemical compounds that may occur in the discharges from Callaway Plant during normal operation fall into three usage categories.

Bulk Usage

This group of compounds describes chemicals which are added directly to specific water systems for treatment at some regular rate or interval. Table 1 lists these chemicals along with their predominant function and potential discharge points.

Laboratory Reagents

This category consists of a group of compounds stored and used in the plants four on site laboratories. The predominant characteristic of this group is the relatively low usage which would result in negligible levels in the effluent. Laboratory reagents may be discharged through the radwaste treatment Outfall 001, and sanitary wastewater Outfall 007. At the request of the Department, Union Electric will provide an inventory of these chemical compounds.

Other Chemical Compounds

This grouping includes other chemical compounds which may be discharged and are not included in the previous lists. An example of a compound in this group is hydrochloric acid, which is used to clean the hypochlorite generation cells periodically. This should result in less than 1,000 gallons/year. General housekeeping and maintenance chemicals, and erosion/corrosion products or byproducts from the Plants infrastructure or fuel materials, are not individually assessed. However, the Form C and D analytical data should reflect contributions from these sources.

Table 1  
Bulk Chemical Usage - Callaway

- 1) Ammonium hydroxide - used for pH control in recirculating water systems; Outfalls 001, 005 and 009
- 2) Aquazine - an algae control chemical used seasonally in the clarifier blowdown and demineralized water system treatment lagoons.
- 3) Boric acid - used as a neutron moderator to provide reactivity control Outfall 001.
- 4) Dispersants - (organic polymers - principally phosphate based) used to reduce solids deposition in the circulating and service (cooling tower) water systems; Outfall 002.
- 5) Hydrazine - used for dissolved oxygen control in recirculating water systems; Outfalls 001, 005 and 009.
- 6) Lithium hydroxide - used for pH control in the primary loop; Outfall 001.
- 7) Nitrite/borate products (solutions) - used as corrosion inhibitors in recirculating water systems; Outfall 005.
- 8) Polyelectrolytes - used as a coagulant in the water treatment plant; Outfall 003.
- 9) Sodium chloride (rock salt) - used to produce sodium hypochlorite on site; Outfall 008.
- 10) Sodium hydroxide - used for regenerating demineralizer resins and for pH control in various wastewater systems; Outfalls 001, 002, 004 and 009.
- 11) Sodium hypochlorite - used as a biocide in the circulating, service and potable water systems; Outfall 002.
- 12) Sodium molybdate - used as a corrosion inhibitor in recirculating water systems; Outfall 001 and 005.
- 13) Sodium sulfite - used as an oxygen scavenger and for conductivity control in the intake structure heaters; Outfall 009.
- 14) Sodium tolytriazole - used as a copper corrosion inhibitor; Outfalls 001, 002 and 005.
- 15) Sulfuric acid - used for regenerating demineralizer resins and for pH control in various water and wastewater systems; Outfalls 001, 002, 004 and 009.

Attachment F  
NPDES Sampling and Analysis

The chemical analysis of the various wastestreams reported in this application came from two principal sources; 1) discharge monitoring data as required by our existing NPDES permit and 2) a special sampling and analytical project conducted in early December, 1984.

Historical data from previous DMR's is of limited use since only the most recent months are likely to be representative of normal operation.

The reapplication sampling effort was conducted by plant personnel during December 4 through 6, 1984. Power generation at the plant averaged in excess of 90% of capacity during this period.

Because of the unresolved status of some outfalls (see discussion of outfall 003 and 004), and power ascention testing and reapplication time constraints, some special sampling and analysis techniques were utilized. Further, as a result of the intermittent or batch discharge nature of many outfalls it became necessary to deviate from the reapplication sampling instructions. Each sample location is discussed separately below to clarify these details and to allow the data to be interpreted correctly.

For the sampling project, plant personnel performed analysis for those parameters requiring on site or radiological analysis. Other analysis was performed by Controls for Environmental Pollution.

Outfall 001

As previously defined, routine discharges from this outfall are from one of five sources - the Boron Recycle System, the Liquid Radwaste System, Laundry and Hot Shower system, Secondary Liquid Waste system, and (less frequently) Steam Generator Blowdown. While processed separately, these wastestreams are normally comingled and retained in various tanks prior to discharge. Thus, discrete samples of each subsystem could not be obtained. Further, Steam Generator Blowdown was recycled without discharge during our sampling project schedule. (See Attachment C, concerning blowdown analysis).

In view of the above conditions and the necessity that plant operations not be constrained by the testing program, the following approach was utilized. Within a single 24 hour period, December 5 & 6, 1984, samples were taken of each of a total of three batch releases made. All samples were grabs taken from well mixed tanks (under recirculating conditions) prior to release. Each sample was analyzed independently. The values shown in the following Maximum Daily Value columns reflect the corresponding flow weighted averages and total masses calculated from this data.

- 1) Form C, Table I, Item 3.00
  - a) A, Heading 2a and
  - b) B, Heading 3a and
- 2) Form D, Item 1.30, Heading 3a,

One further exception is noted. After these samples were taken, plant personnel performed TSS analysis to verify compliance before authorizing the release from these tanks. The TSS levels were not acceptable so the tanks were recirculated through additional filters prior to release. The TSS values shown represent conditions just prior to discharge. The remaining data is therefore conservative in some respects as the polishing filtration would remove some portion of any parameters having suspended fractions, principally total metals.

Also note that Oil and Grease analysis is calculated from averages of four grab samples from each tank.

The maximum thirty day and long term average values shown in both forms represent data compiled from the DMR's from October, November, and December, 1984. Previous months' data are not considered to be representative of normal plant operation.

#### Outfall 002

Cooling tower blowdown was sampled over a 24 hour period on December 4 and 5. The discharge was maintained at a constant flow rate of 5000 gpm. Flow proportional composite and multiple grab samples were taken as appropriate.

Data under "Maximum Daily Value" headings reflect the above samples. "Maximum 30 Day" and "Long Term Average" values are based on routine DMR's for October thru December, 1984. As previously discussed, this period best represents operating conditions.

#### Outfall 003

Clarifier blowdown is primarily dependent on plant water use and river suspended solids concentration. Thus, rather than attempt a 24 hour flow proportional composite of this outfall, which would only be representative of current winter, low flow-low river TSS conditions and unduly biased by the continuous blowdown line flushing, we sampled only during the actual blowdown operation of each clarifier. On the sampling date, December 5, each of the three clarifiers was only blown down once for approximately 10 minutes. Two separate sets of grab samples were taken from each clarifier. These grab samples were then combined (when appropriate) into two separate composite samples, representing the combined discharge from all three clarifiers.

This outfall has the potential for direct discharge (pending FDF approval or appropriate BEJ limits) or the discharge of supernatant following sedimentation of solids. Therefore, the analysis of the two com-

posite samples were treated differently to reflect these two discharge options.

Instructions were given to the contract lab to analyze one sample as received to reflect the direct discharge alternative. The second, duplicate, sample was allowed to settle for approximately 24 hours, and the supernatant analyzed to approximate the quality of a discharge from the lagoon.

These values are shown on two separate data tables under the "Maximum Daily Value" headings, one is labeled Clarifier Blowdown; the other, Clarifier Blowdown Supernatant. The mass values shown were calculated using our estimated average flow rate per Form C Item 2.40 A and B.

It should also be noted that demineralizer regeneration waste is currently combined with clarifier blowdown in a single lagoon, with supernatant recycled to the water treatment plant stilling basin. Consequently no additional data is available for the individual discharge from Outfall 003 (and 004).

#### Outfall 004

As described in Attachment C wastewater discharges from the Demineralized Water System occur as batch releases. Under current operations an entire day's discharge can be retained in the neutralization basin for pH adjustment before discharging to a sedimentation pond. As this is a recirculating, mechanically mixed tank, a single grab sample was taken on December 5. Multiple samples were taken for oil and grease.

As the dedicated lagoon is not yet operational, special handling was required to approximate sampling of supernatant only. The laboratory was instructed to allow this sample to settle for approximately 24 hours and then analyze the supernatant only. As the lagoon is quite large in comparison to this flow, this data should be quite conservative with respect to the suspended fraction of any parameter.

As with Outfall 003 these values and the estimated average flows are used to calculate mass values. Both are listed under the Maximum Daily Value column.

#### Outfall 005

The Oily Waste Separator System batch processes wastewater based on level actuators on an influent wastewater storage tank. The system normally operates in an automatic mode rendering sampling difficult. Frequency of operation is quite unpredictable and dependent on many independent influent sources.

On December 5, the system was operated manually to obtain samples for analysis. Two processing/discharge events were initiated. Grab samples from each were taken and composited as appropriate.

These data are shown under both forms in the "Maximum Daily Value" heading. "Thirty Day Maximum" and "Long Term Average" values are calculated from DMR data from October through December, 1984.

Outfall 007

The Sanitary Treatment Plant was operated at a constant rate of approximately 24 gpm during the sampling period. Twenty four hour flow proportional and grab samples were taken on December 4 and 5.

Data obtained on these dates are reported under the "Maximum Daily Value" heading. Other reported values are calculated for DMR's from the period October through December, 1984.

Outfall 008

The only process wastewater generated by the Circulating and Service Water System results from the regeneration of the system water softener. Only a single regeneration event occurred during the sample period, on December 5. A continuous composite sample was collected during the 1-1 1/2 hour discharge event. This procedure is also used to obtain a representative sample of the discharge for the routine DMR's.

These data are shown under the "Maximum Daily Value" heading. Additional values are calculated from DMR's for November and December, 1984, as other data are both quite limited and nonrepresentative of "normal" conditions.

Outfall 009

The intake heaters were not in use at the time of sampling; in fact, there have been no discharges to date. However, the system chemistry is in a wet lay up condition, which would represent a conservative or worst case condition.

A single grab sample was taken on December 4 and adjusted with both acid and base to meet discharge criteria (both were used as it was overtreated). The sample was then subdivided for analysis.

This sample is representative of a "worst" case release and is shown under the Maximum Daily Value heading. No other data is available.

Missouri River

Flow proportional composite and individual grab samples, were obtained over a 24 hour period on December 4 and 5, from the head of the water treatment plant. These samples were taken without recycle from the clarifier blowdown lagoon. These data are shown under the intake heading on both Forms C and D for Outfall 003 under the following sections:



1. Form C, Table I, Item 3.00
  - a) A, Heading 4a
  - b) B, Heading 5a
2. Form D, Item 1.3, Heading 5a

All analyses were conducted in accordance with Standard Method and/or EPA methodology. Specific test methods or additional detail on other aspects of the sampling or analysis program is available at your request.

Important notes on mass discharge calculations:

Where calculated, mass discharges under the Maximum Daily Value Heading, represent values calculated from the analytical data and the measured flows during the sampling event. Consequently the values shown do not necessarily represent an actual maximum mass discharge value.

The same is true for Outfalls 003 and 004 for which mass values were calculated based on estimated average flow. For Outfall 009, the estimated maximum flow was used to calculate mass values. Mass discharges for Thirty Day Maximum and Long Term Average headings are based on their associated flows, per the DMR.

Attachment G  
Section 311 and Superfund Exemptions

The chemicals listed below are used in water treatment processes in amounts exceeding their "reportable quantities" under 40CFR 117 (1980).

<u>Chemical</u>	<u>Usage (lbs/day)</u>	<u>Reportable Quantity (lbs/day)</u>	<u>Outfalls</u>
Sodium hydroxide	1160	1,000	001,002,004,009
Sodium hypochlorite	467	100	002,007
Sulfuric acid	20300	1,000	001,002,004,009

Union Electric requests exclusion under the NPDES exemptions from Section 311 and Superfund reporting for these three compounds and all others that are, as reported in this application, present in continuous or anticipated intermittent discharges. Appropriate monitoring will be performed. These and other discharges for which exclusion are requested are exempt from section 311 liability by 40 CFR 117.12(a)(1) if they are in compliance with the permit and by 117.12(a)(2) or (3) if they are not. Discharges that are excluded from 311 are also excluded from Superfund. Any discharges other than those resulting from on-site spills would either result from circumstances identified in this application and be subject to neutralization treatment (See 177.12(c)) or would be a continuous or anticipated intermittent discharge originating within the operating or treatment systems at the plant (see 117.12 (d)). These discharges are therefore excluded from Section 311 and Superfund reporting liability.

Attachment H  
General Comments on Standards Setting

In anticipation of conditions which may be set in this permit renewal, Union Electric requests the consideration of the following comments.

1) Mass Limits

On November 19, 1982, EPA published new regulation for 40 CFR Part 423, "Steam Electric Power Generating Point Source Category" (47 FR 52290). Section 423.13(g) specifically allows the permitting authority to express the quantity of pollutants allowed to be discharged as a concentration limitation instead of a mass-based limitation. Fixed numerical mass discharge limitations necessarily impose implicit flow restrictions at the allowable concentration levels. These flow restrictions are too inflexible to cope with the flow variability conditions and the electrical reliability imperatives placed on steam electric power plants. Unlike some industries in which wastestream flow variability is the result of a single factor, like production, Callaway Plant has no such single parameter indicative of flow. Further as a utility whose production is dictated by public consumption the plant must be capable of attaining and maintaining full power production for as long as necessary.

Since we feel that the concentration based limits are sufficient and more appropriate for regulation of power plant discharges, we request that you delete the exiting mass limitations when reissuing this permit. Note that you exercised this option when re-issuing our Meramec and Ashley Plant permits in May of 1983.

2) Net Credits

In a situation whereby a limitation might be set on the discharge of a priority pollutant, Union Electric feels it should reflect an adjustment credit for pollutants in the intake water, the Missouri River. As complete removal of compounds in this category would not be achieved by the water treatment systems at the Callaway Power Plant, we hereby request an appropriate net limitation be applied as necessary.

3) Continuous pH Monitoring

In 1982, the Environmental Protection Agency modified its effluent limitation guidelines for pH for all industrial discharges (47 F.R. 24534. June 4, 1984). The modified pH guidelines require (1) compliance with pH limitations 99% of the time, measured on a monthly basis for industrial dischargers who, pursuant to their NPDES permits, continuously monitor the pH of effluent discharge wastewaters; and (2) limit, for such discharges the duration of individual excursions from the required pH range to 60 minutes.

We submitted a request to take advantage of this pH rule relaxation on August 26, 1982, within the federally allotted period. We, therefore, request that the above change be incorporated into the continuous monitoring requirement on outfall 002, cooling tower blowdown.

Attachment I  
Section 316(b) Demonstration Status

The Callaway 316(b) demonstration consists of two parts, an entrainment study and impingement study. Part one, the entrainment study was started during the spring of 1984 and was successfully completed fall of 1984. Part two, the impingement study is scheduled to start within 90 days of commercial operation of the plant. Conditions permitting, the impingement study will begin on schedule and will be conducted weekly for one year. Within 18 months from the start of the impingement program a final intake assessment report will be submitted to the department.