

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0002402

Owner: Dyno Nobel Inc.
Address: 2795 East Cottonwood Parkway, Suite 500, Salt Lake City, UT 84121

Continuing Authority: Dyno Nobel Inc. (Carthage Plant)
Address: 17562 Gum Road, Carthage, MO 64836

Facility Name: Dyno Nobel Inc. (Carthage Plant)
Facility Address: 17562 Gum Road, Carthage, MO 64836

Legal Description: See page 2
UTM Coordinates: See page 2

Receiving Stream: See page 2
First Classified Stream and ID: See page 2
USGS Basin & Sub-watershed No.: See page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Dyno Nobel Inc. (Carthage Plant) operates a commercial explosive manufacturing facility in Carthage, Missouri. The facility has historically manufactured nitrate esters (NE) and NE based dynamites since the early 1900's. The Carthage facility began to manufacture packaged emulsion explosives and case booster explosives on a production scale in 1990 and 1995, respectively. In addition to explosives, other related products that are manufacturing at the facility include mixed acids, denitrated sulfuric acid, and ammonium nitrate. The facility is also a distribution point for blasting agents, caps, and initiators.

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

August 1, 2015
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

March 31, 2018
Expiration Date

John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued):

Outfall #001 - SIC #2892 - Acid neutralization/settling basin.

(Composite) The cumulative discharge resulting from the manufacture of explosives.

Design flow is 0.034 MGD.

Actual flow is 0.8626 MGD.

The following individual discharges comprise Outfall #001:

#001A - Eliminated in 2008 due to process changes.

#001B - No. 1 Mix House Wet Scrubber. Also discharges steam condensate from No. 1 Mix House (1,440 gpd), maintenance area (1,800 gpd), and the Shell House.

Legal Description: NW ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377471, Y= 4112618

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

#001C - No. 2 Mix House Wet Scrubber. Also discharges steam condensate from No. 2 Mix House (1,440 gpd).

Legal Description: NE ¼, SW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377838, Y= 4112102

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

#001D - Eliminated in 2008 due to process changes.

#001E - Eliminated in 2008 due to process changes.

#001F - Non-process wastewater from the continuous nitrator, Nitric Acid Recovery, Acid Mixing, Non-contact cooling waters.

Legal Description: SE ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377652, Y= 4112336

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

#001G - Eliminated upon issuance per EPA site-inspection report September 26, 2014. Wastewater captured and sold to farmers as fertilizer or disposed of by hauling to a permitted treatment facility.

#001H - Spare parts washdown

Legal Description: NE ¼, SW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377847, Y= 4111834

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

#001I - Eliminated in 2008 due to process changes.

#001J - Eliminated in 2008 due to process changes.

#001K - Eliminated upon issuance due to process changes. The permittee no longer discharges from this location. The wastewater collected in the storage tank is pumped and hauled to Liquid Environmental Services (LES) in Kansas City, MO for treatment. The wastewater stored in the tank results from a thermal alkaline hydrolysis unit for the destruction NG and EGDN coming from storehouse #1 and #2. The storage tank is surrounded by a secondary containment structure.

Outfall #002 - eliminated in 2008 due to process changes.

FACILITY DESCRIPTION (continued):

Outfall #003 -- SIC #2892 - Settling basin.

Non-contact cooling water from nitric acid recovery, crystallizer, and powerhouse, laundry wastewater, plus stormwater.
Design flow is 0.335 MGD.

Actual flow is 14.7 MGD (dependent upon stormwater).

Legal Description: SW ¼, NE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 378053, Y= 4112236

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #004 - - SIC #2892 – Discharges from explosives manufacturing (0.034 MGD), non-contact cooling water from nitric acid recovery, crystallizer, powerhouse (0.335 MGD) and paperwrap operations (1,440 gpd), laundry wastewater, and emulsion packaging (1,872 gpd). This outfall also discharges stream condensate from crystallizer, box house, dope house (4,320 gpd), chub emulsion (1,440 gpd), paperwrap (1,440 gpd), and NG nitrator area operations (1,152 gpd). Also includes floor washdown from various processing buildings.

Design flow is 1.4 MGD.

Actual flow is 0.603 MGD.

Legal Description: SE ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377652, Y= 4112337

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #005 – Eliminated in 2008 due to process changes.

Outfall #006 – Eliminated in 2008 due to process changes.

Outfall #007 – SIC #2892 - Stormwater runoff from Nitrator / Acid Areas.

Design flow is 0.808 MGD (1.25 cfs).

Actual flow dependent upon stormwater.

Legal Description: SE ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377369, Y= 4112723

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #008 – SIC #2892 - Stormwater runoff from Maintenance, Shell House, Cast Booster, and Storage Areas. Also discharges steam condensate from No. 1 Bohlman (720 gpd), PETN Nitrator (360 gpd), and Cast Booster (1,440 gpd) operations.

Design flow is 4.039 MGD (6.25 cfs).

Actual flow dependent upon stormwater.

Legal Description: NW ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377419, Y= 4112721

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No. 11070207-0607

Outfall #009 -- SIC #2892 - Stormwater runoff from No. 4 Gel. Also discharges steam condensate from No. 4 Gel (720 gpd).

Design flow is 2.004 MGD (3.1 cfs).

Actual flow dependent upon stormwater.

Legal Description: NW ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377370, Y= 4112829

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

FACILITY DESCRIPTION (continued):

Outfall #010 – SIC #2892 - Emulsion packaging plant (1,872 gpd). This outfall also discharges stream condensate from crystallizer, box house, and dope house (4,320 gpd) operations.

Design flow is 0.006192 MGD.

Actual flow is 0.008 MGD.

Legal Description: SW ¼, NE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 378066, Y= 4112217

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #011 – Paperwrap non-contact cooling water (1,440 gpd). This outfall also discharge steam condensate from chub emulsion (1,440 gpd) and paperwrap facilities (1,440 gpd).

Design flow is 4,320 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: SW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 378105, Y= 4111676

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #012 – Steam Condensate from No.1 Gel.

Design flow is 720 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: NW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377953, Y= 4111968

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #013 – Steam Condensate from No. 2 Gel.

Design flow is 720 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: NW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377876, Y= 4111857

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #014 – Steam Condensate from No. 3 Gel.

Design flow is 720 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: SW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377968, Y= 4111593

Receiving Stream: 8-20-13 MUDD V1.0 (C) (3960) (which is an unnamed tributary to Center Creek)

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)

Second Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

FACILITY DESCRIPTION (continued):

Outfall #015 – Steam Condensate from No. 2 Bohlman.

Design flow is 720 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: SW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 378044, Y= 4111612

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Outfall #016 – Steam Condensate from No. 2 Hall.

Design flow is 720 gallons per day.

Actual flow is unknown, new outfall.

Legal Description: SW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377903, Y= 4111750

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Upstream Monitoring Point SM1 SIC #2892 - by HH bridge

Design flow is: NA.

Legal Description: SW ¼, SW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377207, Y= 4111369

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No.: 11070207-0607

Downstream Compliance Point SM2 -- SIC #2892-- on section 13 north line

Design flow is: NA.

Legal Description: NW ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County

UTM Coordinates: X= 377159, Y= 4112982

Receiving Stream: Center Creek (P)

First Classified Stream and ID: Center Creek (P) (3203) 303(d) List

USGS Basin & Sub-watershed No. 11070207-0607

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001	TABLE A-1. INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective on August 1, 2015 , and remain in effect through July 31, 2020 . Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
	EFFLUENT PARAMETER(S) (Note 1, page 8)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
DAILY MAXIMUM			WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate	
Chemical Oxygen Demand	lbs/day	2,160	-	720	once/week	grab	
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab	
Biochemical Oxygen Demand ₅	lbs/day	209	-	67	once/week	grab	
Biochemical Oxygen Demand ₅	mg/L	*	-	*	once/week	grab	
Total Suspended Solids	lbs/day	70	-	23	once/week	grab	
Total Suspended Solids	mg/L	*	-	*	once/week	grab	
pH – Units	SU	***	-	***	once/week	grab	
Ammonia as N (April 1 – Sept 30)	mg/L	*	-	*	once/week	grab	
(Oct 1 – March 31)		*	-	*			
Nitrate as N	mg/L	*	-	*	once/week	grab	
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab	
Nitroglycerin	mg/L	*	-	*	once/week	grab	
Ethylene Glycol Dinitrate	mg/L	*	-	*	once/week	grab	
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2015 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.							

* Monitoring requirement only.

** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 – Grab samples shall be collected from each discharge comprising of Outfalls #001B, #001C, #001F, #001 G, #001H, and #001J. These grab samples shall be composited in proportion to flow prior to analysis. The composite shall be representative of Outfall #001.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL #001	TABLE A-2. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <u>August 1, 2020</u> , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
	EFFLUENT PARAMETER(S) (Note 1, page 9)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
DAILY MAXIMUM			WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate	
Chemical Oxygen Demand	lbs/day	1,943	-	648	once/week	grab	
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab	
Biochemical Oxygen Demand ₅	lbs/day	180	-	60	once/week	grab	
Biochemical Oxygen Demand ₅	mg/L	*	-	*	once/week	grab	
Total Suspended Solids	lbs/day	63	-	21	once/week	grab	
Total Suspended Solids	mg/L	*	-	*	once/week	grab	
pH – Units	SU	***	-	***	once/week	grab	
Ammonia as N (April 1 – Sept 30)	mg/L	15.7	-	4.0	once/week	grab	
(Oct 1 – March 31)		15.6	-	6.0			
Nitrate as N	mg/L	*	-	*	once/week	grab	
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab	
Nitroglycerin	mg/L	*	-	*	once/week	grab	
Ethylene Glycol Dinitrate	mg/L	*	-	*	once/week	grab	
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>SEPTEMBER 28, 2020</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.							

* Monitoring requirement only.

** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 – Grab samples shall be collected from each discharge comprising of Outfalls #001B, #001C, #001F, #001 G, #001H, and #001J. These grab samples shall be composited in proportion to flow prior to analysis. The composite shall be representative of Outfall #001.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate
Precipitation	Inches	*	-	-	once/week	measured
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab
Total Suspended Solids	mg/L	*	-	*	once/week	grab
pH – Units	SU	***	-	***	once/week	grab
Oil & Grease	mg/L	*	-	*	once/week	grab
Ammonia as N (April 1 – Sept 30)	mg/L	*	-	*	once/week	grab
(Oct 1 – March 31)		*	-	*		
Nitrate as N	mg/L	*	-	*	once/week	grab
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate
Precipitation	Inches	*	-	-	once/week	measured
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab
Total Suspended Solids	mg/L	*	-	*	once/week	grab
pH – Units	SU	***	-	***	once/week	grab
Oil & Grease	mg/L	15	-	10	once/week	grab
Ammonia as N (April 1 – Sept 30)	mg/L	4.7	-	1.3	once/week	grab
(Oct 1 – March 31)	mg/L	10.7	-	2.7	once/week	grab
Nitrate as N	mg/L	*	-	*	once/week	grab
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2020. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL #004	TABLE A-5. INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective on August 1, 2015 , and remain in effect through July 31, 2020 . Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
	EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
DAILY MAXIMUM			WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate	
Precipitation	Inches	*	-	-	once/week	measured	
Chemical Oxygen Demand	mg/L	45	-	30	once/week	grab	
Biochemical Oxygen Demand ₅	mg/L	45	-	30	once/week	grab	
Total Suspended Solids	mg/L	50	-	30	once/week	grab	
pH – Units	SU	***	-	***	once/week	grab	
Oil & Grease	mg/L	15	-	10	once/week	grab	
Ammonia as N (April 1 – Sept 30)	lbs/day	*	-	*	once/week	grab	
(Oct 1 – March 31)		*	-	*			
Ammonia as N (April 1 – Sept 30)	mg/L	36	-	14	once/week	grab	
(Oct 1 – March 31)		68	-	26			
Nitrate as N	mg/L	*	-	*	once/week	grab	
Sulfate as SO ₄	lbs/day	*	-	*	once/week	grab	
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab	
Nitroglycerin	lbs/day	*	-	*	once/week	grab	
Nitroglycerin	mg/L	0.6	-	0.2	once/week	grab	
Ethylene Glycol Dinitrate	lbs/day	*	-	*	once/week	grab	
Ethylene Glycol Dinitrate	mg/L	2.1	-	1.1	once/week	grab	
Zinc, Total Recoverable	µg/L	*	-	*	once/week	grab	

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL #004	TABLE A-6. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <u>August 1, 2020</u> , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
	EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
DAILY MAXIMUM			WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate	
Precipitation	Inches	*	-	-	once/week	measured	
Chemical Oxygen Demand	mg/L	45	-	30	once/week	grab	
Biochemical Oxygen Demand ₅	mg/L	45	-	22	once/week	grab	
Total Suspended Solids	mg/L	50	-	30	once/week	grab	
pH – Units	SU	***	-	***	once/week	grab	
Oil & Grease	mg/L	15	-	10	once/week	grab	
Ammonia as N (April 1 – Sept 30)	lbs/day	*	-	*	once/week	grab	
(Oct 1 – March 31)		*	-	*			
Ammonia as N (April 1 – Sept 30)	mg/L	5.9	-	1.3	once/week	grab	
(Oct 1 – March 31)		11.9	-	2.2			
Nitrate as N	mg/L	*	-	*	once/week	grab	
Sulfate as SO ₄	lbs/day	*	-	*	once/week	grab	
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab	
Nitroglycerin	lbs/day	*	-	*	once/week	grab	
Nitroglycerin	mg/L	0.6	-	0.2	once/week	grab	
Ethylene Glycol Dinitrate	lbs/day	*	-	*	once/week	grab	
Ethylene Glycol Dinitrate	mg/L	2.1	-	1.1	once/week	grab	
Zinc, Total Recoverable	µg/L	*	-	*	once/week	grab	

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2020. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

EFFLUENT PARAMETER(S) (Note 1, Page #15)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
		Flow	MGD	*	-	-	once/quarter****	24 hr. estimate
Precipitation	Inches	*	-	-	once/quarter****	measured
Chemical Oxygen Demand	mg/L	**	-	-	once/quarter****	grab
Biochemical Oxygen Demand ₅	mg/L	**	-	-	once/quarter****	grab
Total Suspended Solids	mg/L	**	-	-	once/quarter****	grab
pH – Units	SU	***	-	-	once/quarter****	grab
Nitrate as N	mg/L	*	-	-	once/quarter****	grab
Sulfate as SO ₄	mg/L	*	-	-	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Monitoring requirement with a benchmark value.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- **** See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

Note 1 - All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a precipitation event does not occur within the reporting period, report as **no discharge**. The total amount of precipitation should be noted from the event from which the samples were collected.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL #010	TABLE A-8. INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective on August 1, 2015 , and remain in effect through July 31, 2020 . Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab
Total Suspended Solids	lbs/day	217	-	73	once/week	grab
Total Suspended Solids	mg/L	*	-	*	once/week	grab
pH – Units	SU	***	-	***	once/week	grab
Oil & Grease	lbs/day	92	-	29	once/week	grab
Oil & Grease	mg/L	*	-	*	once/week	grab
Ammonia as N (April 1 – Sept 30)	mg/L	*	-	*	once/week	grab
(Oct 1 – March 31)		*	-	*		
Nitrate as N	mg/L	*	-	*	once/week	grab
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

OUTFALL #010	TABLE A-8. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <u>August 1, 2020</u> , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/weekday**	24 hr. estimate
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab
Total Suspended Solids	lbs/day	217	-	73	once/week	grab
Total Suspended Solids	mg/L	*	-	*	once/week	grab
pH – Units	SU	***	-	***	once/week	grab
Oil & Grease	lbs/day	92	-	29	once/week	grab
Oil & Grease	mg/L	*	-	*	once/week	grab
Ammonia as N (April 1 – Sept 30)	mg/L	2.8	-	1.4	once/week	grab
(Oct 1 – March 31)	mg/L	6.5	-	2.9	once/week	grab
Nitrate as N	mg/L	*	-	*	once/week	grab
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE SEPTEMBER 28, 2020. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- * Monitoring requirement only.
- ** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*	-	*	once/weekday**	estimate
Chemical Oxygen Demand	mg/L	*	-	*	once/quarter****	grab
Total Suspended Solids	mg/L	*	-	*	once/quarter****	grab
pH – Units	SU	***	-	***	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.

** Once per weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

**** See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

B. WHOLE EFFLUENT TOXICITY MONITORING REQUIREMENTS

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Acute Whole Effluent Toxicity	TU _a	*	-	-	once/year	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2016.

OUTFALL #001, #003, & #010

**TABLE B-1.
WHOLE EFFLUENT TOXICITY
FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **August 1, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

* Monitoring requirement only.

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Acute Whole Effluent Toxicity	TU _a	*	-	-	once/year	grab
Chronic Whole Effluent Toxicity	TU _c	*	-	-	once/year	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2016.

WET TEST REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2016.

OUTFALL #004

**TABLE B-2.
WHOLE EFFLUENT TOXICITY
FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **Effective Date** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

* Monitoring requirement only.

C. INSTREAM MONITORING REQUIREMENTS

Upstream and Downstream Monitoring Sites (SM1 & SM2, respectively)	TABLE C-1. INSTREAM MONITORING REQUIREMENTS					
	The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on August 1, 2015 , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:					
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	CFS	*	-	*	once/week	Instantaneous estimate
Flow	MGD	*	-	*	once/week	24 hr. total
Chemical Oxygen Demand	mg/L	*	-	*	once/week	grab
Total Dissolved Oxygen	mg/L	*	-	*	once/week	grab
pH – Units	SU	*	-	*	once/week	grab
Ammonia as N	lbs/day	*	-	*	once/week	grab
Ammonia as N	mg/L	*	-	*	once/week	grab
Nitrate as N	mg/L	*	-	*	once/week	grab
Sulfate as SO ₄	lbs/day	*	-	*	once/week	grab
Sulfate as SO ₄	mg/L	*	-	*	once/week	grab
Temperature	°C	*	-	*	once/week	grab
Hardness	mg/L	*	-	*	once/month	grab
Zinc, Total Recoverable	µg/L	*	-	*	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>SEPTEMBER 28, 2015</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring requirement only.

C. INSTREAM MONITORING REQUIREMENTS (continued)

Upstream and Downstream Monitoring Sites (SM1 & SM2, respectively)		TABLE C-2. WHOLE EFFLUENT TOXICITY INSTREAM MONITORING REQUIREMENTS				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on August 1, 2015 , and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Acute Whole Effluent Toxicity	TU _a	*	-	-	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2016</u> .						
Chronic Whole Effluent Toxicity	TU _c	*	-	-	once/year	grab
<u>WET TEST</u> REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2016</u> .						

* Monitoring requirement only.

D. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014 and hereby incorporated as though fully set forth herein.

E. SPECIAL CONDITIONS

1. This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section IV of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at <http://dnr.mo.gov/pubs/pub2481.htm>.
2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

E. SPECIAL CONDITIONS (continued)

4. Water Quality Standards

- (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

5. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

6. Report as no-discharge when a discharge does not occur during the report period.

7. Reporting of Non-Detects:

- (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
- (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
- (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
- (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
- (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.

8. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

9. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticides shall be in a manner consistent with its label.

E. SPECIAL CONDITIONS (continued)

10. The permittee shall implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- a. A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
 - b. The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include weather information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department personnel upon request.
 - c. A provision for designating an individual to be responsible for environmental matters.
 - d. A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.
11. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s). Failure to improve BMPs and achieve compliance with the benchmarks is a permit violation.

Outfall #007, #008, & #009	
Parameter	Benchmark Value
Chemical Oxygen Demand	45 mg/L
Biochemical Oxygen Demand ₅	45 mg/L
Total Suspended Solids	50 mg/L

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make tangible progress towards achieving the benchmarks is a permit violation.

12. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
- a. Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 - b. Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - c. Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - d. Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 - e. Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits and monitoring requirements.

E. SPECIAL CONDITIONS (continued)

13. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
14. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. If the presence of hydrocarbons is indicated, this water must be tested for Total Petroleum Hydrocarbons (TPH). The suggested analytical method for testing TPH is non-Halogenated Organic by Gas Chromatography method 8015 (also known as OA1 and OA2). However, if the permittee so desires to use other approved testing methods (i.e. EPA 1664), they may do so. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.
15. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.
16. Acute Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF ACUTE WET TESTING FOR THIS PERMIT					
OUTFALL	AEC	Acute Toxic Unit (TU _a)	FREQUENCY	SAMPLE TYPE	MONTH
#001, #003, #004, #010, S1 and S2	100%	*	once/year	grab	any

* Monitoring only

Outfall	Dilution Series					(Control) 100% upstream, if available	(Control) 100% Lab Water, also called synthetic water
#001	100%	50%	25%	10.86%	5.43%		
#003	100%	50%	25%	12.5%	6.25%		
#004	100%	50%	25%	12.5%	6.25%		
#010	100%	50%	25%	12.5%	6.25%		

(a) Freshwater Species and Test Methods

- (1) Species and short-term test methods for estimating the acute toxicity of NPDES effluents are found in the fifth edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 48-hour static non-renewal toxicity tests with the following vertebrate species:

- The fathead minnow, *Pimephales promelas* (Acute Toxicity Test Method 2000.0).

And the following invertebrate species:

- The daphnid, *Ceriodaphnia dubia* (Acute Toxicity Test Method 2002.0).

- (2) Chemical and physical analysis of an upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available, synthetic laboratory control water may be used.
- (3) Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
- (4) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analysis performed upon any other effluent concentration.
- (5) All chemical analyses shall be performed and results shall be recorded in the appropriate field of the report form. The parameters for chemical analysis include Temperature (°C), pH (SU), Conductivity (µmohs/cm), Dissolved Oxygen (mg/L), Total Residual Chlorine (mg/L), Un-ionized Ammonia (mg/L), Total Alkalinity (mg/L), Total Hardness (mg/L), Nitrate as N, Sulfate as SO₄, Nitroglycerin and Ethylene Glycol Dinitrate.

E. SPECIAL CONDITIONS (continued)

(b) Reporting of Acute Toxicity Monitoring Results

- (1) WET test results shall be submitted to the Southwest Regional Office, or by eDMR, with the permittee's Discharge Monitoring Reports annually by January, 28 of each year. The submittal shall include:
 - (i) A full laboratory report for all toxicity testing.
 - (ii) Copies of chain-of-custody forms.
 - (iii) The WET form provided by the Department upon permit issuance.
- (2) The report must include a quantification of acute toxic units ($TU_a = 100/LC_{50}$) reported according to the test methods manual chapter on report preparation and test review. The Lethal Concentration, 50 Percent (LC_{50}) is the toxic or effluent concentration that would cause death in 50 percent of the test organisms over a specified period of time.

(c) Permit Reopener for Acute Toxicity

In accordance with 40 CFR Parts 122 and 124, this permit may be modified to include effluent limitations or permit conditions to address acute toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to acute toxicity.

17. Chronic Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF CHRONIC WET TESTING FOR THIS PERMIT					
OUTFALL	AEC	Chronic Toxic Unit (TU_c)	FREQUENCY	SAMPLE TYPE	MONTH
004	100%	*	once/year	grab	any

* Monitoring only

Dilution Series						
100%	50%	25%	12.5%	6.25%	(Control) 100% upstream, if available	(Control) 100% Lab Water, also called synthetic water

(a) Freshwater Species and Test Methods

- (1) Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the fourth edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 7-day, static, renewal toxicity tests with the following vertebrate species:
 - The fathead minnow, *Pimephales promelas* (Survival and Growth Test Method 1000.0).

And the following invertebrate species:

 - The daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).
- (2) Chemical and physical analysis of an upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available, synthetic laboratory control water may be used.
- (3) Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
- (4) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analysis performed upon any other effluent concentration.
- (5) All chemical analyses shall be performed and results shall be recorded in the appropriate field of the report form. The parameters for chemical analysis include Temperature (°C), pH (SU), Conductivity ($\mu\text{mohs/cm}$), Dissolved Oxygen (mg/L), Total Residual Chlorine (mg/L), Un-ionized Ammonia (mg/L), Total Alkalinity (mg/L), Total Hardness (mg/L), Nitrate as N, Sulfate as SO_4 , Nitroglycerin and Ethylene Glycol Dinitrate.

E. SPECIAL CONDITIONS (continued)

(b) Reporting of Chronic Toxicity Monitoring Results

- (1) WET test results shall be submitted to the Southwest Regional Office, or by eDMR, with the permittee's Discharge Monitoring Reports annually by January, 28 of each year. The submittal shall include:
 - (i) A full laboratory report for all toxicity testing.
 - (ii) Copies of chain-of-custody forms.
 - (iii) The WET form provided by the Department upon permit issuance.
- (2) The report must include a quantification of chronic toxic units ($TU_c = 100/IC_{25}$) reported according to the *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* chapter on report preparation and test review. The 25 percent Inhibition Effect Concentration (IC_{25}) is the toxic or effluent concentration that would cause 25 percent reduction in mean young per female or in growth for the test populations.

(c) Permit Reopener for Chronic Toxicity

In accordance with 40 CFR Parts 122 and 124, this permit may be modified to include effluent limitations or permit conditions to address chronic toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to chronic toxicity.

F. SCHEDULE OF COMPLIANCE

Final Effluent Limitations

The facility shall attain compliance with final effluent limitations for Outfalls #001, #003, #004, and #010 as soon as reasonably achievable or no later than **five (5) years** of the effective date of this permit.

1. Within six months of the effective date of this permit, the permittee shall report progress made in attaining compliance with the final effluent limits.
2. The permittee shall submit interim progress reports detailing progress made in attaining compliance with the final effluent limits every 12 months from issuance date.
3. Within **5 years** of the effective date of this permit, the permittee shall attain compliance with the final effluent limits.

Evaluation and Reduction of the Number of Outfalls

The permittee is required to reduce the number of outfalls at this site to five discharge points or less. Combining outfalls reduces the uncertainty for adequate control of discharges and protection of waters of the state. In addition to combining outfalls, the permittee must install sampling structures prior to discharge into the receiving streams that will allow proper sampling to occur. Effluent limitations must be met prior to entering the receiving streams. These structures will allow the permittee to determine compliance with the permit. The permittee must comply with the following schedule for reduction of outfalls. All reduction and facility upgrades shall be completed as soon as reasonably achievable or no later than **five (5) years** of the effective date of this permit.

1. Within six months of the effective date of this permit, the permittee shall submit a work plan for conducting the review of the site. This should include the individuals responsible for completing the review, the method for mapping the pipes associated with each outfall, the method for complying with the schedule for reducing the outfalls (i.e. phased approach or completion all at once), and any other pertinent information related to reducing the number of outfalls at this site.
2. The permittee shall submit interim progress reports detailing progress made in attaining compliance with the final effluent limits every 12 months from issuance date.
3. Within **5 years** of the effective date of this permit, the permittee shall attain compliance with the final effluent limits.

Please submit progress reports to the Missouri Department of Natural Resources, Southwest Regional Office, 2040 W. Woodland, Springfield, Missouri, 65807.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0002402
DYNO NOBEL INC. – CARTHAGE PLANT

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

Part I. Facility Information

Facility Type: Industrial – Commercial Explosives Manufacturing Company
Facility SIC Code(s): 2892

Facility Description:

Dyno Nobel Inc. (Carthage Plant) operates a commercial explosive manufacturing facility in Carthage, Missouri. The facility has historically manufactured nitrate esters (NE) and NE based dynamites since the early 1900's. The Carthage facility began to manufacture packaged emulsion explosives and case booster explosives on a production scale in 1990 and 1995, respectively. In addition to explosives, other related products that are manufacturing at the facility include mixed acids, denitrated sulfuric acid, and ammonium nitrate. The facility is also a distribution point for blasting agents, caps, and initiators.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- Yes; the permittee has included an additional outfall for the discharge of non-contact cooling water associated with the paper wrapping operations, Outfall #011. Also, 19 discharges of steam condensate have been incorporated into the permit. Many flows were added to existing outfalls. The flows that could not be incorporated into an existing outfall are now labeled Outfall #012-#016. Appropriate monitoring requirements and/or effluent limitations have been established for these additional outfalls. Per EPA recommendation and Missouri DNR confirmation, the location of Outfall #008 has been moved to a location that will better capture stormwater runoff from the related portion of the property. This is reflected in the new UTM coordinates listed in the permit under Outfall #008. Further, Outfall #001K no longer discharges. The permittee hired Liquid Environmental Services (LES) in Kansas City to pump and haul the wastewater generated at this location for treatment. Due to this change in operation, the permittee will no longer be required to sample from this location as there is no discharge.

Application Date: 03/05/2013
Expiration Date: 09/11/2013
Last Inspection: 05/22/2012 In Compliance ; Non-Compliance

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.053	Primary	Industrial Process Wastewater/Steam Condensate Water
#003	0.519	Primary	Industrial Process Wastewater
#004	2.166	Primary	Industrial Process Wastewater/Steam Condensate Water
#007	1.250	BMPs	Stormwater
#008	6.249	BMPs	Stormwater/Steam Condensate Water
#009	3.101	BMPs	Stormwater/Steam Condensate Water
#010	0.010	Primary	Industrial Process Wastewater/Steam Condensate Water
#011	0.007	Primary	Non-contact Cooling Water/Steam Condensate Water
#012	0.001	BMPs	Steam Condensate Water
#013	0.001	BMPs	Steam Condensate Water
#014	0.001	BMPs	Steam Condensate Water
#015	0.001	BMPs	Steam Condensate Water
#016	0.001	BMPs	Steam Condensate Water
SM1	Stream Flow	None	Instream Monitoring - Upstream
SM2	Stream Flow	None	Instream Monitoring - Downstream

N/A – Dependent upon stormwater runoff.

BMPs – Best Management Practices

Facility Performance History & Comments:

The most recent site inspection to determine compliance with the permit was conducted on May 22, 2012. The facility was found to be in non-compliance during the time of the inspection. The following unsatisfactory features were noted during the site inspection:

- The following Outfalls, 001G, 008, and 009 were not properly marked as required by MSOP Special Condition 2. Failing to properly mark the outfalls constitutes a violation of MCWL section 644.076.1.
- There was a collection basin for steam condensation near but not in Outfall 001C. This basin was observed discharging over the hill. There was no indication this discharge was included in facility description for Outfall 001 and therefore is unpermitted. This discharge constitutes a violation of MCWL sections 644.051.2 and 644.076.1, RSMo and MCWC Regulation 10 CSR 20-6.010(1)(A) and (5)(A). It will be necessary for Dyno Nobel to submit forms A, C, and D if required requesting a modification to your permit adding the steam condensation discharge to your permit. Please also note there will be a fee associated with the modification.
- It was observed that the NG settling basin was not completely being used as designed. At the time it was discharging four inches off the bottom and not using the entire tank. It was also noted this was repaired prior to leaving the site.
- It was noted that the onsite manifests for waste hauling from Outfall 001K were not completely filled out. The onsite manifests did not contain the signature of the facility receiving the wastes. To ensure that proper disposal has occurred, ensure that the final copy of the manifest contains the signature of the receiving facility.
- There was waste material from the burning of a building located just upstream of Outfall 009. This material must be disposed of properly or placed under roof to control stormwater contamination.
- It was observed there was settled and floating material on the basin at Outfall 010. Please be reminded of the MSOP Standard Conditions Part I, Section B, Item 6 which requires the monitoring of the volume of material that is removed and disposed of from this facility.
- Laboratory procedures did not conform to MSOP Standard Conditions Part I, Section A as noted below. Failure to conform to approved analytical and sampling methods is a violation of 644.076.1, RSMo and MCWC Regulation 10 CSR20-7.015 (9)(A)2.

Additionally, the Department’s database notes that the facility had several exceedances of effluent limitations between 2010 and 2014. The following list highlights these violations and resulting Letters of Warning (LOW) or Notices of Violations (NOV).

- June 30, 2014 – failed to meet pH limits, LOW
- May 28, 2014 – failed to meet Nitroglycerin limits, NOV
- February 7, 2014 – failed to meet pH limits, LOW
- October 27, 2014 – failed to meet Oil and Grease limits, LOW
- August 25, 2010 – failed to meet Total Suspended Solids limits and pH limits, LOW

Part II. Receiving Stream Information

Receiving Water Body’s Water Quality

A stream survey was conducted on June 16, 2011 on a tributary to Center Creek (U). However, this stream location is just below a domestic wastewater lagoon discharge. All observations are attributed the that domestic facility and are not representative of the classified segment of Center Creek (P) 3203, that is the receiving stream for Dyno Nobel, Inc. Center Creek (P) 3203 is listed on the 2012 303(d) List of impaired waters. The pollutants are cadmium (S), cadmium (W), and lead (S), with the source of the pollution listed as Tri-State Mining District. The designated use of protection aquatic life and human health – fish consumption (AQL) has been impaired by these pollutants. A Total Maximum Daily Load (TMDL) allocation has been developed for zinc (S). However, this TMDL does not require that this facility meet a Waste Load Allocation (WLA) for zinc.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

As per Missouri’s Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
#003, #004, #010, #011, #012, #013, #014	8-20-13 MUDD V1.0	C	3960	AQL, GEN, HHP, IRR, LWW, SCR, WBC-B	0.0	11070207-0607
#001, #007, #008, #009, #015, #016	Center Creek	P	3203	AQL, CLF, GEN, IND, IRR, LWW, SCR, WBC-A	0.0	

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW), General Criteria (GEN). ** - Hydrologic Unit Code

RECEIVING STREAM(S) LOW-FLOW VALUES:

OUTFALL	RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
		1Q10	7Q10	30Q10
#003, #004, #010, #011, #012, #013, #014	8-20-13 MUDD V1.0 (C)	0.0	0.0	0.1
#001, #007, #008, #009, #015, #016	Center Creek (P)	15.5*	17.4*	22.2*

*DATA COLLECTED USING USGS SURFACE-WATER DATABASE ([HTTP://WATERDATA.USGS.GOV/NWIS/SW](http://waterdata.usgs.gov/nwis/sw))

MIXING CONSIDERATIONS TABLE:

OUTFALL	MIXING ZONE (CFS) [10 CSR 20-7.031(5)(A)4.B.]			ZONE OF INITIAL DILUTION (CFS) [10 CSR 20-7.031(5)(A)4.B.]		
	1Q10	7Q10	30Q10	1Q10	7Q10	30Q10
#003, #004, #010, #011, #012, #013, #014	0.0	0.0	0.0	0.0	0.0	0.0
#001, #007, #008, #009, #015, #016	3.875	4.35	5.55	0.3875	0.435	0.555

RECEIVING STREAM MONITORING REQUIREMENTS:

Site 01. Upstream Monitoring Point SM1 - SIC #2892 - by HH bridge

PARAMETER(S)	UNITS	SAMPLING FREQUENCY	SAMPLE TYPE	LOCATION
Flow	CFS	once/week	Instant estimate	Legal Description: SW ¼, SE ¼, Sec. 13, T28N, R32W, Jasper County UTM Coordinates: X= 378105, Y= 4111676 Receiving Stream: Center Creek (P) First Classified Stream and ID: Center Creek (P) 3203 USGS Basin & Sub-watershed No.: 11070207-0607
Flow	MGD	once/week	24 hr total	
Chemical Oxygen Demand	mg/L	once/week	grab	
Ammonia as N	mg/L	once/week	grab	
Ammonia as N	lbs/day	once/week	grab	
Nitrate as N	mg/L	once/week	grab	
Total Dissolved Oxygen	mg/L	once/week	grab	
Sulfate as SO4	mg/L	once/week	grab	
Sulfate as SO4	lbs/day	once/week	grab	
pH	SU	once/week	grab	
Temperature	°C	once/week	grab	
Zinc, Total Recoverable	mg/L	once/month	grab	
Hardness	mg/L	once/month	grab	
Acute WET Test – dry weather	TUa	once/year	grab	
Chronic WET Test – dry weather	TUc	once/year	grab	

Site 02. Downstream Compliance Point SM2 - SIC #2892 - on section 13 north line

PARAMETER(S)	UNITS	SAMPLING FREQUENCY	SAMPLE TYPE	LOCATION
Flow	CFS	once/week	Instant estimate	Legal Description: NW ¼, NW ¼, Sec. 13, T28N, R32W, Jasper County UTM Coordinates: X= 377159, Y= 4112982 Receiving Stream: Center Creek (P) First Classified Stream and ID: Center Creek (P) 3203 USGS Basin & Sub-watershed No.: 11070207-0607
Flow	MGD	once/week	24 hr total	
Chemical Oxygen Demand	mg/L	once/week	grab	
Ammonia as N	mg/L	once/week	grab	
Ammonia as N	lbs/day	once/week	grab	
Nitrate as N	mg/L	once/week	grab	
Total Dissolved Oxygen	mg/L	once/week	grab	
Sulfate as SO4	mg/L	once/week	grab	
Sulfate as SO4	lbs/day	once/week	grab	
pH	SU	once/week	grab	
Temperature	°C	once/week	grab	
Zinc, Total Recoverable	mg/L	once/month	grab	
Hardness	mg/L	once/month	grab	
Acute WET Test – dry weather	TUa	once/year	grab	
Chronic WET Test – dry weather	TUc	once/year	grab	

Part III, Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- New facility, backsliding does not apply.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

- Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

- Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

- The Department determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).

Some of the previous permit limits or monitoring requirements were established using best professional judgment by the previous permit writer. However, in accordance with current stormwater permitting practices and utilization of benchmark values, best professional judgment has been used to remove some of the effluent limitations set for maximum daily limits (MDL), some of the monitoring only requirements (parameters completely removed from several outfalls) and all of the average monthly limits (AML). Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an AML is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. The following pollutants no longer have effluent limitations, but will have associated benchmark values.

Outfall #007, #008, & #009	
Parameter	Benchmark Value
Chemical Oxygen Demand	45 mg/L
Biochemical Oxygen Demand ₅	45 mg/L
Total Suspended Solids	50 mg/L

There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions are protective of the applicable water quality standards.

Additionally, reasonable potential analyses (RPA's) were conducted for total recoverable zinc from Outfall #004 and total recoverable aluminum from Outfall #010. The RPA's resulted in no reasonable potential to exceed water quality standards for either parameter at either outfall. Therefore, it is the permit writer's best professional judgment to remove effluent limitations for total recoverable zinc and require monitoring only and completely remove total recoverable aluminum from the permit.

Finally, Whole Effluent Toxicity (WET) testing methodology has been clarified since the previous permit was issued. Stormwater related discharges do not qualify for WET testing as they are sporadic and intermittent events that cannot adequately be captured and compared for purposes of WET testing. Therefore, the permit writer has removed the wet weather WET testing requirements from the permit. Now the permittee will just be required to conduct WET testing for the continuous discharge.

ANTIDegradation:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

Not applicable; This condition is not applicable to the permittee for this facility.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable; The permittee/facility is not currently under Water Protection Program enforcement action.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

Applicable; A RPA was conducted on appropriate parameters. Please see **APPENDIX A – RPA RESULTS**.

INDUSTRIAL SLUDGE:

Industrial sludge is solids, semi-solids, or liquid residue generated during the treatment of industrial process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

Not applicable; This condition is not applicable to the permittee for this facility.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Applicable; The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)]. The facility has been given a schedule of compliance to meet final effluent limits for Outfalls #001, #003, #004, and #010. The permittee has been granted five years to complete operational adjustments or install technology capable of meeting the final effluent limitations for Outfall #001, #003, #004, #010. The compliance schedule above shall coincide with a schedule for reduction of outfalls at the site. The permittee shall reduce the number of outfall to five or less discharge points within five years of the effective date of this permit. This will assist in environmental management, compliance and creating a more manageable permit to ensure protection of the water quality.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA’s *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Applicable; A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

SPILL REPORTING:

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department’s 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable; This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Applicable; Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA’s “Technical Support Document For Water Quality-based Toxics Control” (EPA/505/2-90-001).

Number of Samples “n”:

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of “n” for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for “n” must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is “n = 4” at a minimum. For Total Ammonia as Nitrogen, “n = 30” is used.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable; A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones.

Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Applicable;

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A)7. and the Water Quality Standards 10 CSR 20-7.031(4)(D),(F),(G),(I)2.A & B are being met. Under [10 CSR 20-6.010(8)(A)4], the Department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc...); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by all facilities meeting the following criteria:

Facility is a designated Major.

Facility continuously or routinely exceeds its design flow.

Facility that exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.

Facility (whether primarily domestic or industrial) that alters its production process throughout the year.

Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.

Facility has Water Quality-Based Effluent Limitations for toxic substances (other than NH₃)

Facility is a municipality with a Design Flow ≥ 22,500 gpd.

Other – please justify.

303(d) List:

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

✓ Applicable. Center Creek (P) (3203) is listed on the 2014 Missouri 303(d) List for cadmium (S), cadmium (W), and lead (S).

✓ This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of Center Creek (P) (3203). The TMDL notes Tri-State Abandoned Mine Lands as the source of the impairment.

Total Maximum Daily Load (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation.

✓ Applicable. Center Creek (P) (3203) is associated with the 2006 EPA Approved TMDL for zinc.

✓ This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of Center Creek (P) (3203). The TMDL notes Tri-State Abandoned Mine Lands as the source of the impairment.

Part IV. 2013 Water Quality Criteria for Ammonia

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities.

On August 22, 2013, the U.S. Environmental Protection Agency (EPA) finalized new water quality criteria for ammonia, based on toxicity studies of mussels and gill breathing snails. Missouri's current ammonia criteria are based on toxicity testing of several species, but did not include data from mussels or gill breathing snails. Missouri is home to 69 of North America's mussel species, which are spread across the state. According to the Missouri Department of Conservation nearly two-thirds of the mussel species in Missouri are considered to be "of conservation concern". Nine species are listed as federally endangered, with an additional species currently proposed as endangered and another species proposed as threatened.

The adult forms of mussels that are seen in rivers, lakes, and streams are sensitive to pollutants because they are sedentary filter feeders. They vacuum up many pollutants with the food they bring in and cannot escape to new habitats, so they can accumulate toxins in their bodies and die. But very young mussels, called glochidia, are exceptionally sensitive to ammonia in water. As a result of a citizen suit, the EPA was compelled to conduct toxicity testing and develop ammonia water quality criteria that would be protective if young mussels may be present in a waterbody. These new criteria will apply to any discharge with ammonia levels that may pose a reasonable potential to violate the standards. Nearly all discharging domestic wastewater treatment facilities (cities, subdivisions, mobile home parks, etc.), as well as certain industrial and stormwater dischargers with ammonia in their effluent, will be affected by this change in the regulations.

When new water quality criteria are established by the EPA, states must adopt them into their regulations in order to keep their authorization to issue permits under the National Pollutant Discharge Elimination System (NPDES). States are required to review their water quality standards every three years, and if new criteria have been developed they must be adopted. States may be more protective than the Federal requirements, but not less protective. Missouri does not have the resources to conduct the studies necessary for developing new water quality standards, and therefore our standards mirror those developed by the EPA; however, we will utilize any available flexibility based on actual species of mussels that are native to Missouri and their sensitivity to ammonia.

Many treatment facilities in Missouri are currently scheduled to be upgraded to comply with the current water quality standards. But these new ammonia standards may require a different treatment technology than the one being considered by the permittee. It is important that permittees discuss any new and upcoming requirements with their consulting engineers to ensure that their treatment systems are capable of complying with the new requirements. The Department encourages permittees to construct treatment technologies that can attain effluent quality that supports the EPA ammonia criteria.

Ammonia toxicity varies by temperature and by pH of the water. Assuming a stable pH value, but taking into account winter and summer temperatures, Missouri includes two seasons of ammonia effluent limitations. Current effluent limitations in this permit are:

Outfall #001:

Summer – 100.3 mg/L daily maximum, 24.1 mg/L monthly average.

Winter – 100.3 mg/L daily maximum, 38.4 mg/L monthly average.

Outfall #003:

Summer – 4.7 mg/L daily maximum, 1.3 mg/L monthly average.

Winter – 10.7 mg/L daily maximum, 2.7 mg/L monthly average.

Outfall #004:

Summer – 5.9 mg/L daily maximum, 1.3 mg/L monthly average.

Winter – 11.9 mg/L daily maximum, 2.2 mg/L monthly average.

Outfall #010:

Summer – 2.8 mg/L daily maximum, 1.4 mg/L monthly average.

Winter – 6.5 mg/L daily maximum, 2.9 mg/L monthly average.

Under the new EPA criteria, where mussels of the family Unionidae are present or expected to be present, the estimated effluent limitations for a facility in a location such as this that discharges to a receiving stream with the mixing consideration listed in Part IV of the Fact Sheet will be:

Outfall #001:

Summer – 28.3 mg/L daily maximum, 6.8 mg/L monthly average.

Winter – 67.6 mg/L daily maximum, 25.8 mg/L monthly average.

Outfall #003:

Summer – 2.2 mg/L daily maximum, 0.6 mg/L monthly average.
Winter – 8.0 mg/L daily maximum, 2.0 mg/L monthly average.

Outfall #004:

Summer – 2.7 mg/L daily maximum, 0.6 mg/L monthly average.
Winter – 8.1 mg/L daily maximum, 1.5 mg/L monthly average.

Outfall #010:

Summer – 1.3 mg/L daily maximum, 0.7 mg/L monthly average.
Winter – 4.8 mg/L daily maximum, 2.2 mg/L monthly average.

Actual effluent limits will depend in part on the actual performance of the facility.

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations.

For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

Part V. Effluent Limits Determination

Outfall #001 – Main Facility Outfall, Explosives Manufacturing

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

In accordance with federal effluent limitations guidelines (ELG's) for explosives manufacturing facilities, 40 CFR 457.12, effluent limitations for COD, BOD₅, and TSS should be based on the amount of product manufactured at the site, i.e. per 1,000 pounds of product. The following values must be used in the final effluent limitations calculations.

Parameter	Effluent limitations	
	Daily Maximum	Monthly Average
COD	7.77	2.59
BOD ₅	0.72	0.24
TSS	0.25	0.084

All other parameters listed in the permit will be implemented in accordance with state water quality standards.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	NO	*/*
COD	LBS/DAY	1	1,942.5	-	647.5	YES	2,160/720
COD	MG/L	6	*	-	*	NO	*/*
BOD ₅	LBS/DAY	1	180	-	60	YES	209/67
BOD ₅	MG/L	6	*	-	*	NO	*/*
TSS	LBS/DAY	1	62.5	-	21	YES	70/23
TSS	MG/L	6	*	-	*	NO	*/*
pH	SU	1	6.5-9.0	-	6.5-9.0	YES	6.5-9.0
AMMONIA AS N (APRIL 1 – SEPT 30)	MG/L	2, 3	100.3	-	24.1	YES	*/*
AMMONIA AS N (OCT 1 – MARCH 31)	MG/L	2, 3	100.3	-	38.4	YES	*/*
NITRATE AS N	MG/L	6	*	-	*	NO	*/*
SULFATE AS SO ₄	MG/L	6	*	-	*	NO	*/*
NITROGLYCERIN	MG/L	6	*	-	*	NO	*/*
ETHYLENE GLYCOL DINITRATE	MG/L	6	*	-	*	NO	*/*
WHOLE EFFLUENT TOXICITY (WET) TEST	TUa	11	*	-	-	YES	**

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Chemical Oxygen Demand (COD).** In accordance with 40 CFR 457.12, the facility shall not exceed 7.77 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 2.59 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 250,000 pounds of explosives per day.

Daily Maximum:

$$(7.77/1,000) * 250,000 = 1,942.5 \text{ lbs. of BOD}_5 \text{ per day as a daily maximum}$$

Monthly Average:

$$(2.59/1,000) * 250,000 = 647.5 \text{ lbs. of BOD}_5 \text{ per day as a monthly average}$$

The permit writer has used best professional judgment to continue implementing monitoring the concentration in mg/L.

- **Biochemical Oxygen Demand (BOD₅).** In accordance with 40 CFR 457.12, the facility shall not exceed 0.72 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 0.24 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 250,000 pounds of explosives per day.

Daily Maximum:

$$(0.72/1,000) * 250,000 = 180 \text{ lbs. of BOD}_5 \text{ per day as a daily maximum}$$

Monthly Average:

$$(0.24/1,000) * 250,000 = 60 \text{ lbs. of BOD}_5 \text{ per day as a monthly average}$$

The permit writer has used best professional judgment to continue implementing monitoring the concentration in mg/L.

- **Total Suspended Solids (TSS).** In accordance with 40 CFR 457.12, the facility shall not exceed 0.25 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 0.084 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 250,000 pounds of explosives per day.

Daily Maximum:
 $(0.25/1,000) * 250,000 = 62.5$ lbs. of BOD₅ per day as a daily maximum

Monthly Average:
 $(0.084/1,000) * 250,000 = 21$ lbs. of BOD₅ per day as a monthly average

The permit writer has used best professional judgment to continue implementing monitoring the concentration in mg/L.

- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU. Background total ammonia nitrogen = 0.01 mg/L. Due to the actual flow of the facility being greater than the design flow, actual flow was used to calculate final effluent limitations. Development of final effluent limitations must consider the highest reasonable potential for the facility to exceed water quality standards. This includes the largest discharge flow associated with the outfall.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30

Chronic WLA: $C_e = ((0.053 + 5.55)1.5 - (5.55 * 0.01))/0.053$
 $C_e = 157.53$ mg/L

Acute WLA: $C_e = ((0.053 + 0.3875)12.1 - (0.3875 * 0.01))/0.053$
 $C_e = 100.49$ mg/L

$LTA_c = 157.53$ mg/L (0.614) = 96.72 mg/L [CV = 1.22, 99th Percentile, 30 day avg.]
 $LTA_a = 100.49$ mg/L (0.171) = 17.18 mg/L [CV = 1.22, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 17.18 mg/L (5.84) = 100.3 mg/L [CV = 1.22, 99th Percentile]
 AML = 17.18 mg/L (1.40) = 24.1 mg/L [CV = 1.22, 95th Percentile, n = 30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((0.053 + 5.55)3.1 - (5.55 * 0.01))/0.053$
 $C_e = 326.68$ mg/L

Acute WLA: $C_e = ((0.053 + 0.3875)12.1 - (0.3875 * 0.01))/0.053$
 $C_e = 100.49$ mg/L

$LTA_c = 326.68$ mg/L (0.780) = 254.81 mg/L [CV = 0.60, 99th Percentile, 30 day avg.]
 $LTA_a = 100.49$ mg/L (0.321) = 32.26 mg/L [CV = 0.60, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

MDL = 32.26 mg/L (3.11) = 100.3 mg/L [CV = 0.60, 99th Percentile]
 AML = 32.26 mg/L (1.19) = 38.4 mg/L [CV = 0.60, 95th Percentile, n = 30]

- **Nitrate as N.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Sulfate as SO₄.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Nitroglycerin.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Ethylene Glycol Dinitrate.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Acute WET Test.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

Acute Allowable Effluent Concentrations (AECs):

$$\text{Acute AEC\%} = ((\text{design flow}_{\text{cfs}} \text{ or actual flow if greater} + \text{ZID}_{7\text{Q}10}) / \text{design flow}_{\text{cfs}})^{-1}] \times 100 = \#\#\% \\ = ((0.053 + 0.435) / 0.053)^{-1}] \times 100 = 10.86\%$$

• **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/weekday	once/month
COD	once/week	once/month
COD	once/week	once/month
BOD ₅	once/week	once/month
BOD ₅	once/week	once/month
TSS	once/week	once/month
TSS	once/week	once/month
pH	once/week	once/month
Ammonia as N	once/week	once/month
Nitrate as N	once/week	once/month
Sulfate as SO ₄	once/week	once/month
Nitroglycerin	once/week	once/month
Ehtylene Glycol Dinitrate	once/week	once/month
WET Test	once/year	once/year

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department's Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- No less than **ONCE/YEAR:**
- Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
- Facility continuously or routinely exceeds their design flow.
- Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
- Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

• **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Outfall #003 – Non-Contact Cooling Water/Laundry Wastewater/Stormwater

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	NO	*/*
PRECIPITATION	INCHES	6	*	-	-	YES	**
COD	MG/L	6	*	-	*	NO	*/*
TSS	MG/L	6	*	-	*	NO	*/*
pH	SU	1, 4	6.5-9.0	-	6.5-9.0	NO	6.5-9.0
AMMONIA AS N (APRIL 1 – SEPT 30)	MG/L	2, 3, 5	4.7	-	1.3	YES	*/*
AMMONIA AS N (OCT 1 – MARCH 31)	MG/L	2, 3, 5	10.7	-	2.7	YES	*/*
OIL & GREASE	MG/L	1, 6	15	-	10	YES	*/*
NITRATE AS N	MG/L	6	*	-	*	NO	*/*
SULFATE AS SO ₄	MG/L	6	*	-	*	NO	*/*
WHOLE EFFLUENT TOXICITY (WET) TEST	TUa	11	*	-	-	YES	**

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #003 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Measuring the amount of rainfall during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.
- **Chemical Oxygen Demand (COD).** Monitoring only requirement. Although there is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals being discharged or coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.
- **Total Suspended Solids (TSS).** Monitoring only requirement. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate chemicals or uncontrolled materials leaving the site.
- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

- **Oil & Grease.** Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The discharge monitoring report data shows reasonable potential to exceed water quality standards. The data ranges from 0.6-23 mg/L. The renewal application shows a maximum value of 10.3 mg/L and a long term average value of 1.93 mg/L. Therefore, it is the permit writer’s best professional judgment to implement effluent limitations.
- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU. Background total ammonia nitrogen = 0.01 mg/L. Due to the actual flow of the facility being greater than the design flow, actual flow was used to calculate final effluent limitations. Development of final effluent limitations must consider the highest reasonable potential for the facility to exceed water quality standards. This includes the largest discharge flow associated with the outfall.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30

Chronic WLA: $C_e = ((0.52 + 0.0)1.5 - (0.0 * 0.01))/0.52$
 $C_e = 1.5 \text{ mg/L}$

Acute WLA: $C_e = ((0.52 + 0.0)12.1 - (0.0 * 0.01))/0.52$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 1.5 \text{ mg/L} (0.685) = 1.03 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.217) = 2.63 \text{ mg/L}$

[CV = 0.93, 99th Percentile, 30 day avg.]
 [CV = 0.93, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 1.03 mg/L (4.60) = 4.7 mg/L
 AML = 1.03 mg/L (1.30) = 1.3 mg/L

[CV = 0.93, 99th Percentile]
 [CV = 0.93, 95th Percentile, n = 30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((0.52 + 0.0)3.1 - (0.0 * 0.01))/0.52$
 $C_e = 3.1 \text{ mg/L}$

Acute WLA: $C_e = ((0.52 + 0.0)12.1 - (0.0 * 0.01))/0.52$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 3.1 \text{ mg/L} (0.636) = 1.97 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.183) = 2.21 \text{ mg/L}$

[CV = 1.13, 99th Percentile, 30 day avg.]
 [CV = 1.13, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 1.97 mg/L (5.45) = 10.7 mg/L
 AML = 1.97 mg/L (1.37) = 2.7 mg/L

[CV = 1.13, 99th Percentile]
 [CV = 1.13, 95th Percentile, n =30]

- **Nitrate as N.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. The DMR data and permit renewal application indicates the presence of this parameter in the discharge.
- **Sulfate as SO₄.** Monitoring requirement only. The permit writer has used best professional judgment to continue monitoring for this parameter. The DMR data and permit renewal application indicates the presence of this parameter in the discharge.
- **Acute WET Test.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility’s discharge to exceed water quality standards.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

• **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/weekday	once/month
COD	once/week	once/month
TSS	once/week	once/month
pH	once/week	once/month
Oil & Grease	once/week	once/month
Ammonia as N	once/week	once/month
Nitrate as N	once/week	once/month
Sulfate as SO ₄	once/week	once/month
WET Test	once/year	once/year

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- No less than ONCE/YEAR:
- Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
- Facility continuously or routinely exceeds their design flow.
- Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
- Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

• **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Outfall #004 – Discharge from Outfall #001 and Outfall #003, wash water from floor drains and stormwater.

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	NO	*/*
PRECIPITATION	INCHES	6	*	-	-	YES	**
COD	MG/L	6	45	-	30	YES	45/30
BOD ₅	MG/L	6	45	-	22	YES	45/30
TSS	MG/L	6	50	-	30	YES	50/30
pH	SU	1, 4	6.5-9.0	-	6.5-9.0	YES	6.5-9.0
OIL & GREASE	MG/L	1, 6	15	-	10	YES	15/10
AMMONIA AS N (APRIL 1 – SEPT 30)	MG/L	2, 3	5.9	-	1.3	YES	36/14
AMMONIA AS N (APRIL 1 – SEPT 30)	LBS/DAY	6	*	-	*	YES	*/*
AMMONIA AS N (OCT 1 – MARCH 31)	MG/L	2, 3	11.9	-	2.2	YES	68/26
AMMONIA AS N (OCT 1 – MARCH 31)	LBS/DAY	6	*	-	*	YES	*/*
NITRATE AS N	MG/L	6	*	-	*	YES	136/68
SULFATE AS SO ₄	MG/L	6	*	-	*	YES	5,077/2,530
SULFATE AS SO ₄	LBS/DAY	6	*	-	*	YES	*/*
NITROGLYCERIN	MG/L	6	0.6	-	0.2	YES	0.21/0.11
NITROGLYCERIN	LBS/DAY	6	**	-	**	YES	*/*
ETHYLENE GLYCOL DINITRATE	MG/L	6	2.1	-	1.1	YES	2.1/1.1
ETHYLENE GLYCOL DINITRATE	LBS/DAY	6	**	-	**	YES	*/*
ZINC, TOTAL RECOVERABLE	µG/L	6	*	-	*	YES	222/111 MG/L
ZINC, TOTAL RECOVERABLE	LBS/DAY	6	**	-	**	YES	*/*
WHOLE EFFLUENT TOXICITY (WET) TEST	TUa	11	*	-	-		PASS/FAIL

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #004 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Measuring the amount of rainfall during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.
- **Chemical Oxygen Demand (COD).** In accordance with 40 CFR 457.12, the facility shall not exceed 7.77 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 2.59 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 1,084,000 pounds of explosives per day (250,000 pounds of dynamite manufacturing plus 834,000 pounds of emulsion manufacturing). However, the previous permit writer implemented effluent limitations in mg/L. Below, the permit writer has compare the calculated pounds per day, which have been converted to mg/L, to the previous effluent limitations. In an effort to avoid backsliding per CWA §303(d)(4); CWA §402(c); and 40 CFR Part 122.44(I), the permit writer has also reviewed the DMR data to determine if the facility is capable of meeting the previous effluent limitations.

Daily Maximum:

$(7.77/1,000) * 1,084,000 = 8,422.68$ lbs. of BOD₅ per day as a daily maximum

Converting from lbs/day to mg/L: (lbs/day) / (conversion factor of 8.34 * flow in MGD)
 $(8,422.68 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 721.37 \text{ mg/L}$

Monthly Average:

$(2.59/1,000) * 1,084,000 = 2,807.56$ lbs. of BOD₅ per day as a monthly average

Converting from lbs/day to mg/L: (lbs/day) / (conversion factor of 8.34 * flow in MGD)
 $(2,807.56 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 240.46 \text{ mg/L}$

DMR daily maximum data: 2.1-86.2 mg/L, with two data points out of forty-two above 45 mg/L (51.7 mg/L and 86.2 mg/L)

DMR monthly average data: 1.9-43.7 mg/L, with two points out of forty-two above 30 mg/L (34.6 mg/L and 43.7 mg/L)

The permit writer has used best professional judgment to continue implementing final effluent limitations from the previous permit. The DMR data shows that the facility is capable of meeting these limits. The four excursions occurred in 2009, thus the most recent data representing the current operations prove that this facility is capable of meeting existing limits.

- **Biochemical Oxygen Demand (BOD₅).** In accordance with 40 CFR 457.12, the facility shall not exceed 0.72 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 0.24 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 1,084,000 pounds of explosives per day (250,000 pounds of dynamite manufacturing plus 834,000 pounds of emulsion manufacturing). However, the previous permit writer implemented effluent limitations in mg/L. Below, the permit writer has compare the calculated pounds per day, which have been converted to mg/L, to the previous effluent limitations. In an effort to avoid backsliding per CWA §303(d)(4); CWA §402(c); and 40 CFR Part 122.44(I), the permit writer has also reviewed the DMR data to determine if the facility is capable of meeting the previous effluent limitations.

Daily Maximum:

$(0.72/1,000) * 1,084,000 = 780.48$ lbs. of BOD₅ per day as a daily maximum

Converting from lbs/day to mg/L: (lbs/day) / (conversion factor of 8.34 * flow in MGD)
 $(780.48 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 66.84 \text{ mg/L}$

Monthly Average:

$(0.24/1,000) * 1,084,000 = 260.16$ lbs. of BOD₅ per day as a monthly average

Converting from lbs/day to mg/L: (lbs/day) / (conversion factor of 8.34 * flow in MGD)
 $(260.16 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 22.28 \text{ mg/L}$

DMR daily maximum data: 1.1-16.5 mg/L

DMR monthly average data: 1.3-9.3 mg/L

The permit writer has used best professional judgment to implement the more stringent value when comparing the previous permit limits to the calculated limits above. The DMR data proves that the facility can consistently discharge BOD₅ less than 20 mg/L. Therefore, the daily maximum from the previous permit will be implemented. The newly calculated monthly average will replace the previous monthly average limit. Daily Maximum = 45 mg/L; Monthly Average = 22 mg/L.

- **Total Suspended Solids (TSS).** In accordance with 40 CFR 457.12, the facility shall not exceed 0.25 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 0.084 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 1,084,000 pounds of explosives per day (250,000 pounds of dynamite manufacturing plus 834,000 pounds of emulsion manufacturing). However, the previous permit writer implemented effluent limitations in mg/L. Below, the permit writer has compare the calculated pounds per day, which have been converted to mg/L, to the previous effluent limitations. In an effort to avoid backsliding per CWA §303(d)(4); CWA §402(c); and 40 CFR Part 122.44(I), the permit writer has also reviewed the DMR data to determine if the facility is capable of meeting the previous effluent limitations.

Daily Maximum:

$(0.25/1,000) * 1,084,000 = 271$ lbs. of BOD₅ per day as a daily maximum

Converting from lbs/day to mg/L: (lbs/day) / (conversion factor of 8.34 * flow in MGD)
 $(271 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 23.21 \text{ mg/L}$

Monthly Average:

$(0.084/1,000) * 1,084,000 = 91.056$ lbs. of BOD₅ per day as a monthly average

Converting from lbs/day to mg/L: $(\text{lbs/day}) / (\text{conversion factor of } 8.34 * \text{flow in MGD})$
 $(91.056 \text{ lbs/day}) / (8.34 * 1.4 \text{ MGD}) = 7.80 \text{ mg/L}$

DMR daily maximum data: 1.0-66.2 mg/L, with only one data point exceeding 50 mg/L.

DMR monthly average data: 0.6-24 mg/L

The permit writer has used best professional judgment to determine that the facility is not capable of meeting the calculated effluent limitations above. The calculated effluent limitations are unnecessarily stringent. The existing effluent limitations have been deemed achievable and adequately protective. Therefore, the effluent limitations from the previous permit will be implemented in this permit. Daily Maximum = 50 mg/L; Monthly Average = 30 mg/L.

- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Oil & Grease.** Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The discharge monitoring report data shows reasonable potential to exceed water quality standards. The data ranges from 0.6-23 mg/L. The renewal application shows a maximum value of 10.3 mg/L and a long term average value of 1.93 mg/L. Therefore, it is the permit writer's best professional judgment to implement effluent limitations.
- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU. Background total ammonia nitrogen = 0.01 mg/L. Due to the actual flow of the facility being greater than the design flow, actual flow was used to calculate final effluent limitations. Development of final effluent limitations must consider the highest reasonable potential for the facility to exceed water quality standards. This includes the largest discharge flow associated with the outfall.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30

Chronic WLA: $C_e = ((2.166 + 0.0)1.5 - (0.0 * 0.01))/2.166$
 $C_e = 1.5 \text{ mg/L}$

Acute WLA: $C_e = ((2.166 + 0.0)12.1 - (0.0 * 0.01))/2.166$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 1.5 \text{ mg/L } (0.553) = 0.83 \text{ mg/L}$

[CV = 1.56, 99th Percentile, 30 day avg.]

$LTA_a = 12.1 \text{ mg/L } (0.140) = 1.69 \text{ mg/L}$

[CV = 1.56, 99th Percentile]

Use most protective number of LTA_c or LTA_a.

$MDL = 0.83 \text{ mg/L } (7.16) = 5.9 \text{ mg/L}$

[CV = 1.56, 99th Percentile]

$AML = 0.83 \text{ mg/L } (1.52) = 1.3 \text{ mg/L}$

[CV = 1.56, 95th Percentile, n = 30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((2.166 + 0.0)3.1 - (0.0 * 0.01))/2.166$
 $C_e = 3.1 \text{ mg/L}$

Acute WLA: $C_e = ((2.166 + 0.0)12.1 - (0.0 * 0.01))/2.166$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 3.1 \text{ mg/L } (0.372) = 1.15 \text{ mg/L}$

[CV = 2.74, 99th Percentile, 30 day avg.]

$LTA_a = 12.1 \text{ mg/L } (0.097) = 1.17 \text{ mg/L}$

[CV = 2.74, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

$$\begin{aligned}MDL &= 1.15 \text{ mg/L} (10.31) = 11.9 \text{ mg/L} \\AML &= 1.15 \text{ mg/L} (1.95) = 2.2 \text{ mg/L}\end{aligned}$$

$$\begin{aligned}[CV &= 2.74, 99^{\text{th}} \text{ Percentile}] \\[CV &= 2.74, 95^{\text{th}} \text{ Percentile, } n=30]\end{aligned}$$

- **Nitrate as N.** Effluent limitations have been removed and replaced with monitoring only. The previous permit writer established water quality-based effluent limitations using chronic criterion for the protection of drinking water. Due to the fact that the receiving stream has not been designated as a drinking water source or a losing stream, the chronic criterion for protection of drinking water does not apply. Therefore, the permit writer has used best professional judgment to remove effluent limitations and require monitoring only. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge. DMR data supports this decision.

DMR daily maximum data: 0.1-138 mg/L, with only one data point exceeding 136 mg/L.
DMR monthly average data: 0.1-71.2 mg/L, with only one data point exceeding 68 mg/L.

- **Sulfate as SO_4 .** Effluent limitations have been removed and replaced with monitoring only. The previous permit writer established water quality-based effluent limitations using chronic criterion for the protection of drinking water. Due to the fact that the receiving stream has not been designated as a drinking water source or a losing stream, the chronic criterion for protection of drinking water does not apply. Therefore, the permit writer has used best professional judgment to remove effluent limitations and require monitoring only. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge. DMR data supports this decision.

DMR daily maximum data: 0.3-1,697 mg/L
DMR monthly average data: 0.3-464 mg/L

The permit writer has used best professional judgment to continue implementing monitoring in lbs/day.

- **Nitroglycerin.** In accordance with the following guidance documents: EPA NPDES Permit Writer's Manual (http://water.epa.gov/polwaste/npdes/basics/upload/pwm_chapt_06.pdf), Missouri's Water Pollution Control Permits Manual chapter 5.2.1 (http://dnr.mo.gov/env/wpp/permits/manual/5_2_1.pdf), and Missouri's Water Pollution Control Permits Manual chapter 5.2.2 (http://dnr.mo.gov/env/wpp/permits/manual/5_2_2.pdf), the following toxic criteria should be used to develop a WET limit: acute toxicity = 0.3 TU_a ; chronic toxicity = 1.0 TU_c . The acute toxicity considers the percent of effluent that is lethal to fifty percent of the exposed organisms. Therefore, the acute toxicity endpoint is the reciprocal of the TU_a . The chronic toxicity considers the percent of pollutant in the effluent that adversely affects twenty-five percent of the aquatic life, or inhibition concentration (IC25). Therefore, the chronic toxicity endpoint is the reciprocal of the TU_c . For more information on these endpoints, please review Chapter 4, Section 5.5 of EPA's Technical Support Document for Water Quality-Based Toxic Controls (TSD).

Based on the Material Safety Data Sheet (MSDS) revised by Pfizer in 2009 (http://www.pfizer.com/files/products/material_safety_data/PD027.pdf), the LC50 for nitroglycerin is 1.91 mg/L in aquatic life (AQL). From this value, we can complete the following calculations:

Variables and Formulas:

$$LC50 = 1.91 \text{ mg/L}$$

$$TU_a = 0.3$$

$$TU_a = \text{allowable concentration of pollutant in effluent} / LC50$$

$$0.3 = X / 1.91 \text{ mg/L}$$

$$X = 0.3 * 1.91 \text{ mg/L}$$

$$X = 0.573 \text{ mg/L}$$

The allowable concentration of pollutant in the effluent calculated above will be considered the acute wasteload allocation (AWL) allowed for this parameter. With these established values, a mass-balance equation can be completed like any other water quality-based parameter. Due to the actual flow of the facility being greater than the design flow, actual flow was used to calculate final effluent limitations. Development of final effluent limitations must consider the highest reasonable potential for the facility to exceed water quality standards. This includes the largest discharge flow associated with the outfall. Additionally, the MSDS only contained an LC50, which is associated with acute toxicity. Therefore, acute toxicity will drive the calculations below. It is assumed the background concentration of nitroglycerin in the receiving stream is 0 mg/L. An RPA was conducted for the past five years of performance for this parameter. The CV and multipliers from the RPA were used in the final effluent calculations below.

Acute WLA: $C_e = ((2.166 + 0.0)0.573 - (0.0 * 0.0))/2.166$
 $C_e = 0.573 \text{ mg/L}$

$LTA_a = 0.573 (0.088) = 0.050 \text{ mg/L}$ [CV = 3.32, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

$MDL = 0.050 (11.30) = 0.6 \text{ mg/L}$ [CV = 3.32, 99th Percentile]
 $AML = 0.050 (3.42) = 0.2 \text{ mg/L}$ [CV = 3.32, 95th Percentile, n = 4]

The permit writer has used best professional judgment to continue implementing monitoring in lbs/day.

- **Ethylene Glycol Dinitrate.** This parameter is used in the manufacturing of dynamite or is a byproduct of that process. The previous permit writer stated that the LC50 of this parameter is ten times the LC50 of nitroglycerin. However, documentation of this could not be found. The available toxicity determinations for this parameter referred to chronic inhalation and were expressed in terms of air concentrations (mg/M³). Due to the fact that no LC50 for aquatic life could be found, the permit writer has used best professional judgment to continue implementing effluent limitations. In an effort to avoid backsliding per CWA §303(d)(4); CWA §402(c); and 40 CFR Part 122.44(I), the previous permit limits will be implemented in this permit; MDL of 2.1 mg/L and AML of 1.1 mg/L.

The permit writer has used best professional judgment to continue implementing monitoring in lbs/day.

- **Total Recoverable Zinc.** Effluent limitations have been removed and replaced with monitoring only. The RPA conducted for this parameter resulted in no reasonable potential to exceed water quality standards. Therefore, it is the permit writer's best professional judgment to removed effluent limitations and require monitoring only.

The permit writer has used best professional judgment to continue implementing monitoring in lbs/day.

- **Acute WET Test.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

- **Chronic WET Test.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

• **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/weekday	once/month
Precipitation	once/week	once/month
COD	once/week	once/month
BOD ₅	once/week	once/month
TSS	once/week	once/month
pH	once/week	once/month
Oil & Grease	once/week	once/month
Ammonia as N	once/week	once/month
Nitrate as N	once/week	once/month
Sulfate as SO ₄	once/week	once/month
Nitroglycerin	once/week	once/month
Ethylene Glycol Dinitrate	once/week	once/month
Zinc, Total Recoverable	once/week	once/month
WET Test	once/year	once/year

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- **No less than ONCE/YEAR:**
 - Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
 - Facility continuously or routinely exceeds their design flow.
 - Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
 - Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

Chronic Whole Effluent Toxicity

- **NO LESS THAN ONCE/YEAR:**
 - POTW facilities with a design flow of greater than 10 million gallons per day), and which have less than 15:1 dilution available in mixing zone shall conduct and submit to the Department a chronic WET test no less than once per calendar year.
 - Discharges with pollutants that pose a strong probability of causing chronic toxicity, such as pesticides or certain other chemicals.
 - Industrial dischargers with toxic parameters in the discharge; that may alter production processes; or facilities which handle large quantities of toxic substances or substances that are toxic in large amounts shall conduct chronic WET test at a frequency establish frequency appropriate to facility operations.

• **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Outfall #007, #008 and #009 – Stormwater Outfalls

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

Benchmarks

Benchmark concentrations are **not** effluent limitations; benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the technology based effluent limitations (TBEL). Failure to take corrective action is a violation of the permit. Benchmark exceedance alone is not a permit violation.

The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the EPA MSGP. The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will be necessary to protect water quality.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	****	NO	*/*
PRECIPITATION	INCHES	6	*	-	-	YES	***
COD	MG/L	6	**	-	****	NO	45/30
BOD ₅	MG/L	6	**	-	****	NO	45/30
TSS	MG/L	6	**	-	****	NO	50/30
pH	SU	1, 4	6.5-9.0	-	****	NO	6.5-9.0
NITRATE AS N	MG/L	6	*	-	****	NO	*/*
SULFATE AS SO ₄	MG/L	6	*	-	****	NO	*/*
SULFATE AS SO ₄	LBS/DAY	6	****	-	****	NO	*/*

- * - Monitoring requirement only
- ** - Monitoring with associated benchmark
- *** - Parameter not previously established in previous state operating permit.
- **** - Parameter removed from permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 5. State or Federal Regulation/Law | 5. Water Quality Model |
| 6. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 7. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 8. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #007, #008, & #009 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Measuring the amount of rainfall during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.

- **Chemical Oxygen Demand (COD)**. Effluent limitations have been removed and replaced with monitoring only. There are no water quality standards for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. It is the permit writer's best professional judgment to remove the effluent limitations and require monitoring only. Additionally, a benchmark value will be established for this parameter. Because the facility has proven that it can meet the previous effluent limitations, the benchmark will be set at 45 mg/L.

DMR data Outfall #007: 6.8-28 mg/L
DMR data Outfall #008: 4-21.8 mg/L
DMR data Outfall #009: 1.1-23 mg/L

- **Biochemical Oxygen Demand (BOD₅)**. Effluent limitations have been removed and replaced with monitoring only. There are no water quality standards for BOD₅ associated with stormwater runoff; however, increased oxygen demand may impact instream water quality. Much like COD, BOD₅ is also a valuable indicator parameter. BOD₅ monitoring allows the permittee to identify increases in BOD₅ that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand, which may indicate a need for maintenance or improvement of BMPs. It is the permit writer's best professional judgment to remove the effluent limitations and require monitoring only. Additionally, a benchmark value will be established for this parameter. Because the facility has proven that it can meet the previous effluent limitations, the benchmark will be set at 45 mg/L.

DMR data Outfall #007: 1.4-14 mg/L
DMR data Outfall #008: 0.5-24.7 mg/L
DMR data Outfall #009: 0.9-15.3 mg/L

- **Total Suspended Solids (TSS)**. Effluent limitations have been removed and replaced with monitoring only. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. It is the permit writer's best professional judgment to remove the effluent limitations and require monitoring only. Additionally, a benchmark value will be established for this parameter. Because the facility has proven that it can meet the previous effluent limitations, the benchmark will be set at 50 mg/L.

DMR data Outfall #007: 1.2-18.6 mg/L
DMR data Outfall #008: 0.6-165.9 mg/L (165.9 mg/L reported 03/31/2009; range without this value is 0.6-28 mg/L)
DMR data Outfall #009: 0.3-29.6 mg/L

- **pH**. – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Nitrate as N**. Monitoring only requirement. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Sulfate as SO₄**. Monitoring only requirement. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge. The permit writer has used best professional judgment to remove monitoring in lbs/day. Due to the fact that monitoring only is required, there is no reason to report in both mg/L and lbs/day.

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Precipitation	once/quarter	once/quarter
COD	once/quarter	once/quarter
BOD ₅	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter
Ammonia as N	once/quarter	once/quarter
Nitrate as N	once/quarter	once/quarter
Sulfate as SO ₄	once/quarter	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

- **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Outfall #010 – Packaging Plant Outfalls

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

In accordance with federal effluent limitations guidelines (ELG’s) for explosives manufacturing facilities, 40 CFR 457.12, effluent limitations for Oil and Grease and TSS should be based on the amount of product manufactured at the site, i.e. per 1,000 pounds of product. The following values must be used in the final effluent limitations calculations.

Parameter	Effluent limitations	
	Daily Maximum	Monthly Average
Oil & Grease	0.11	0.035
TSS	0.26	0.088

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	NO	*/*
COD	MG/L	6	*	-	*	YES	***
TSS	MG/L	1, 6	*	-	*	NO	*/*
TSS	LBS/DAY	1	217	-	73	NO	217/73
pH	SU	1	6.5-9.0	-	6.5-9.0	NO	6.5-9.0
AMMONIA AS N (APRIL 1 – SEPT 30)	MG/L	2, 3, 5	2.8	-	1.4	YES	*/*
AMMONIA AS N (OCT 1 – MARCH 31)	MG/L	2, 3, 5	6.5	-	2.9	YES	*/*
OIL & GREASE	MG/L	1, 6	*	-	*	NO	*/*
OIL & GREASE	LBS/DAY	1	92	-	29	NO	92/29
NITRATE AS N	MG/L	6	*	-	*	YES	***
SULFATE A SO ₄	MG/L	6	*	-	*	YES	***
ALUMINUM, TOTAL RECOVERABLE	MG/L	6	****	-	****	YES	*/*
WHOLE EFFLUENT TOXICITY (WET) TEST	TUa	11	*	-	-	YES	***

* - Monitoring requirement only

** - Monitoring with associated benchmark

*** - Parameter not previously established in previous state operating permit.

**** - Parameter removed from permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #010 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Chemical Oxygen Demand (COD).** Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.
- **Total Suspended Solids (TSS).** In accordance with 40 CFR 457.12, the facility shall not exceed 0.26 pounds of BOD₅ per 1,000 pounds of production as a Daily Maximum, and 0.088 pounds of BOD₅ per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 834,000 pounds of explosives per day.

Daily Maximum:

$$(0.26/1,000) * 834,000 = 216.84 \text{ lbs. of BOD}_5 \text{ per day as a daily maximum}$$

Monthly Average:

$$(0.088/1,000) * 834,000 = 73.39 \text{ lbs. of BOD}_5 \text{ per day as a monthly average}$$

The permit writer has used best professional judgment to continue implementing monitoring the concentration in mg/L.

- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU. Background total ammonia nitrogen = 0.01 mg/L. Due to the actual flow of the facility being greater than the design flow, actual flow was used to calculate final effluent limitations. Development of final effluent limitations must consider the highest reasonable potential for the facility to exceed water quality standards. This includes the largest discharge flow associated with the outfall.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30

Chronic WLA: $C_e = ((0.010 + 0.0)1.5 - (0.0 * 0.01))/0.010$
 $C_e = 1.5 \text{ mg/L}$

Acute WLA: $C_e = ((0.010 + 0.0)12.1 - (0.0 * 0.01))/0.010$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 1.5 \text{ mg/L} (0.852) = 1.28 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.452) = 5.47 \text{ mg/L}$

[CV = 0.38, 99th Percentile, 30 day avg.]
 [CV = 0.38, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 1.28 mg/L (2.21) = 2.8 mg/L
 AML = 1.28 mg/L (1.12) = 1.4 mg/L

[CV = 0.38, 99th Percentile]
 [CV = 0.38, 95th Percentile, n = 30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((0.010 + 0.0)3.1 - (0.0 * 0.01))/0.010$
 $C_e = 3.1 \text{ mg/L}$

Acute WLA: $C_e = ((0.010 + 0.0)12.1 - (0.0 * 0.01))/0.010$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 3.1 \text{ mg/L} (0.823) = 2.55 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.393) = 4.76 \text{ mg/L}$

[CV = 0.47, 99th Percentile, 30 day avg.]
 [CV = 0.47, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 2.55 mg/L (2.54) = 6.5 mg/L
 AML = 2.55 mg/L (1.15) = 2.9 mg/L

[CV = 0.47, 99th Percentile]
 [CV = 0.47, 95th Percentile, n = 30]

- **Oil & Grease.** In accordance with 40 CFR 457.12, the facility shall not exceed 0.11 pounds of Oil & Grease per 1,000 pounds of production as a Daily Maximum, and 0.035 pounds of Oil & Grease per 1,000 pounds of production as a Monthly Average. The permittee has indicated on the permit renewal application that they manufacture approximately 834,000 pounds of explosives per day.

Daily Maximum:
 $(0.11/1,000) * 834,000 = 91.74 \text{ lbs. of BOD}_5 \text{ per day as a daily maximum}$

Monthly Average:
 $(0.035/1,000) * 834,000 = 29.19 \text{ lbs. of BOD}_5 \text{ per day as a monthly average}$

The permit writer has used best professional judgment to continue implementing monitoring the concentration in mg/L.

- **Nitrate as N.** Monitoring requirement only. The permit writer has used best professional judgment to require monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.

- **Sulfate as SO₄**. Monitoring requirement only. The permit writer has used best professional judgment to require monitoring for this parameter. This parameter is used in the manufacturing of dynamite or is a byproduct of that process. Monitoring will indicate the presence of manufacturing products and byproducts in the discharge.
- **Total Recoverable Aluminum**. Monitoring only requirement removed from the permit. The RPA conducted for this parameter resulted in no reasonable potential to exceed water quality standards. Therefore, it is the permit writer’s best professional judgment to remove this parameter from the permit.
- **Acute WET Test**. Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility’s discharge to exceed water quality standards.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/weekday	once/month
COD	once/week	once/month
TSS	once/week	once/month
pH	once/week	once/month
Ammonia as N	once/week	once/month
Nitrate as N	once/week	once/month
Sulfate as SO ₄	once/week	once/month
WET Test	once/year	once/year

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- **No less than ONCE/YEAR:**
- Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
- Facility continuously or routinely exceeds their design flow.
- Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
- Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

- **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Outfall #011 – Non-contact Cooling Water Outfall

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	YES	**
COD	MG/L	6	*	-	*	YES	**
TSS	MG/L	6	*	-	*	YES	**
pH	SU	1	6.5-9.0	-	6.5-9.0	YES	**

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 5. State or Federal Regulation/Law | 5. Water Quality Model |
| 6. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 7. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 8. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #011 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Chemical Oxygen Demand (COD).** Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.
- **Total Suspended Solids (TSS).** Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site.
- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
COD	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency shall be quarterly. The permit writer has used best professional judgment to determine that quarterly sampling and reporting will provide adequate monitoring of the discharge, as this is non-contact cooling water.

• **Sampling Type Justification.**

Sampling Type shall be grab samples. Due to the nature of the discharge, the permit writer has used best profession judgment to determine that grab samples provide adequate representation of the discharge.

Outfall #012-#016 – Steam Condensate Water Outfalls

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*	-	*	YES	**
COD	MG/L	6	*	-	*	YES	**
TSS	MG/L	6	*	-	*	YES	**
pH	SU	1	6.5-9.0	-	6.5-9.0	YES	**

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #012 - #030 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Chemical Oxygen Demand (COD).** Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.
- **Total Suspended Solids (TSS).** Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site.
- **pH.** – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
COD	once/quarter	once/quarter
TSS	once/quarter	once/quarter
pH	once/quarter	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency shall be quarterly. The permit writer has used best professional judgment to determine that quarterly sampling and reporting will provide adequate monitoring of the discharge, as this is stream condensate water.

• **Sampling Type Justification.**

Sampling Type shall be grab samples. Due to the nature of the discharge, the permit writer has used best profession judgment to determine that grab samples provide adequate representation of the discharge.

Instream Monitoring – Upstream and Downstream Monitoring Point

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

MONITORING TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	CFS	6	*	-	*	NO	*/*
FLOW	MGD	6	*	-	*	NO	*/*
COD	MG/L	6	*	-	*	NO	*/*
TOTAL DISSOLVED OXYGEN	MG/L	6	*	-	*	NO	*/*
pH	SU	6	*	-	*	NO	*/*
AMMONIA AS N	LBS/DAY	6	*	-	*	NO	*/*
AMMONIA AS N	MG/L	6	*	-	*	NO	*/*
NITRATE AS N	MG/L	6	*	-	*	NO	*/*
KJELDAHL NITROGEN	MG/L	6	***	-	***	YES	*/*
SULFATE AS SO ₄	LBS/DAY	6	*	-	*	NO	*/*
SULFATE AS SO ₄	MG/L	6	*	-	*	NO	*/*
TEMPERATURE	°C	6	*	-	*	NO	*/*
HARDNESS	MG/L	6	*	-	*	NO	*/*
ZINC, TOTAL RECOVERABLE	MG/L	6	*	-	*	YES	*/*
ACUTE WET TEST – DRY WEATHER	TU _A	6	*	-	*	NO	*/*
ACUTE WET TEST – WET WEATHER	TU _A	6	***	-	***	YES	*/*
CHRONIC WET TEST – DRY WEATHER	TU _C	6	*	-	*	NO	*/*
CHRONIC WET TEST – WET WEATHER	TU _C	6	***	-	***	YES	*/*

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

***- Parameter removed from permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

UPSTREAM AND DOWNSTREAM MONITORING POINTS – DERIVATION AND DISCUSSION OF LIMITS:

- In order to adequately monitor the characteristics of the receiving stream and determine the impact of the discharges to the receiving stream, the following parameters will remain in the permit for monitoring at the upstream and downstream sampling locations: flow, COD, total dissolved oxygen, pH, ammonia as N, nitrate as N, sulfate as SO₄, temperature, hardness, and dry weather acute and chronic WET tests.
- The permit writer has used best professional judgment to remove the following parameters from the instream monitoring requirements. Kjeldahl nitrogen has been removed because it does not apply to instream water quality. This parameter more adequately represents nutrient management for land application of wastewater and/or sludge. Wet weather WET testing has also been removed. Stormwater related discharges or flows do not qualify for WET testing as they are sporadic and intermittent events that cannot adequately be captured and compared for purposes of WET testing.

• **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/week	once/month
COD	once/week	once/month
Total Dissolved Oxygen	once/week	once/month
pH	once/week	once/month
Ammonia as N	once/week	once/month
Nitrate as N	once/week	once/month
Sulfate as SO ₄	once/week	once/month
Temperature	once/week	once/month
Hardness	once/month	once/month
Zinc, Total Recoverable	once/month	once/month
WET Test	once/year	once/year

Sampling Frequency Justification:

Sampling and Reporting Frequency was retained from previous permit.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department’s Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- **No less than ONCE/YEAR:**
 - Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
 - Facility continuously or routinely exceeds their design flow.
 - Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
 - Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

Chronic Whole Effluent Toxicity

- NO LESS THAN ONCE/YEAR:**
 - POTW facilities with a design flow of greater than 10 million gallons per day), and which have less than 15:1 dilution available in mixing zone shall conduct and submit to the Department a chronic WET test no less than once per calendar year.
 - Discharges with pollutants that pose a strong probability of causing chronic toxicity, such as pesticides or certain other chemicals.
 - Industrial dischargers with toxic parameters in the discharge; that may alter production processes; or facilities which handle large quantities of toxic substances or substances that are toxic in large amounts shall conduct chronic WET test at a frequency establish frequency appropriate to facility operations.

• **Sampling Type Justification.**

Sampling Type was retained from previous permit.

Part VI. Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than three years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☒ - The Public Notice period for this operating permit began on April 24, 2015 and ended on May 26, 2015. Missouri Department of Natural Resources' Water Protection Section staff submitted comments during this Public Notice period. Staff provided clarification on the 303(d) List and TMDL information for Center Creek. The permit factsheet has been revised to reflect these corrections. These comments have not changed any conditions or limits in the permit. Additionally, the permit writer corrected typographical errors in the permit and factsheet. No other comments were submitted.

DATE OF FACT SHEET: OCTOBER 8, 2014

COMPLETED BY:

**LOGAN COLE, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
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APPENDIX A – RPA RESULTS:

OUTFALL #001

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	12.38	1.5	0.98	24.00	27.4/0.02	1.22	3.77	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	22.43	3.1	1.77	5.00	44.6/0.8	0.60	4.20	YES

OUTFALL #003

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	43.97	1.5	43.97	30.00	16.3/0.08	0.93	2.70	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	105.89	3.1	105.89	27.00	32.1/0.05	1.13	3.30	YES

OUTFALL #004

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	310.50	1.5	310.50	20.00	58.3/0.2	1.56	5.33	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	1075.26	3.1	1075.26	15.00	89.9/0.1	2.74	11.96	YES
Nitroglycerin mg/L	0.6	16.17	NA	16.17	34.00	2.5/0	3.32	6.47	YES
Zinc, Total Recoverable	174.6	32.17	174.6	32.17	34.00	8/0	1.73	4.02	NO

OUTFALL #010

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	4665.45	1.5	4665.45	30.00	2928/529.2	0.38	1.59	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	5783.88	3.1	5783.88	30.00	3312/500	0.47	1.75	YES
Aluminum, Total Recoverable	750.0	38.24	NA	NA	60.00	21.4/0	0.74	1.79	NO

N/A – Not Applicable

* - Units are (µg/L) unless otherwise noted.

** - If the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent.

*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.

RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).

n – Is the number of samples.

MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.

RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.



STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1);
 - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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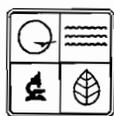
- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittee with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

AP 14707



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT
 UNDER MISSOURI CLEAN WATER LAW**

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED

Note y PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- An operating permit and antidegradation review public notice
- A construction permit following an appropriate operating permit and antidegradation review public notice
- A construction permit and concurrent operating permit and antidegradation review public notice
- A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- An operating permit for a new or unpermitted facility Construction Permit # _____
- An operating permit renewal: permit # MO- 0002402 Expiration Date 9/11/2013
- An operating permit modification: permit # MO- Reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

NAME Dyno Nobel Inc. (Carthage Plant)		TELEPHONE WITH AREA CODE (417) 358-4061	
ADDRESS (PHYSICAL) 17562 Gum Road		FAX (417) 358-1383	
CITY Carthage	STATE MO	ZIP CODE 64836	

3. OWNER

NAME Dyno Nobel Inc.		E-MAIL ADDRESS	TELEPHONE WITH AREA CODE (801) 364-4800	
ADDRESS (MAILING) 2795 East Cottonwood Parkway, Suite 500		FAX (801) 321-6706		
CITY Salt Lake City	STATE UT	ZIP CODE 84121		

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

NAME Dyno Nobel Inc. (Carthage Plant)		TELEPHONE WITH AREA CODE (417) 358-4061		
ADDRESS (MAILING) 17562 Gum Road		FAX (417) 358-1383		
CITY Carthage	STATE MO	ZIP CODE 64836		

5. OPERATOR

NAME Dyno Nobel Inc.		CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE (417) 358-4061	
ADDRESS (MAILING) 17562 Gum Road		FAX (417) 358-1383		
CITY Carthage	STATE MO	ZIP CODE 64836		

6. FACILITY CONTACT

NAME Scott A. Kolb		TITLE Environmental Manager	TELEPHONE WITH AREA CODE (417) 359-2202	
			FAX (417) 359-2215	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

See attached Table 1.1.

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

All Outfalls: SIC 2892 NAICS 325920

Dyno Nobel Inc.
Carthage Plant
NPDES Permit Renewal Form A
7.1 Legal Description of Outfalls
Table 1.1

001B	NW 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377471	Northing: 4112618		Zone: 15
001C	NE 1/4	SW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377838	Northing: 4112102		Zone: 15
001F	SE 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377652	Northing: 4112336		Zone: 15
001G	SW 1/4	NE 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 378042	Northing: 4112207		Zone: 15
001H	NE 1/4	SW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377847	Northing: 4111834		Zone: 15
001J	NW 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377516	Northing: 4112542		Zone: 15
001K	SE 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377828	Northing: 4112258		Zone: 15
003	SW 1/4	NE 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 378053	Northing: 4112236		Zone: 15
004	SE 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377652	Northing: 4112337		Zone: 15
007	SE 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377652	Northing: 4112336		Zone: 15
008	NW 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377419	Northing: 4112721		Zone: 15
009	NW 1/4	NW 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 377370	Northing: 4112829		Zone: 15
010	SW 1/4	NE 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 378066	Northing: 4112217		Zone: 15
011	SW 1/4	SE 1/4	Sec: 13	T: 28N	R: 32W	Jasper County
	UTM Coordinates		Easting: 378105	Northing: 4111676		Zone: 15

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
(Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES NO
 If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).
- B. Is your facility considered a "Primary Industry" under EPA guidelines: YES NO
 If yes, complete Forms C and D.
- C. Is application for storm water discharges only? YES NO
 If yes, complete EPA Form 2F.
- D. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale. **See Figure 1.1**
- E. Is wastewater land applied? If yes, complete Form I. YES NO
- F. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES NO
 If yes, complete Form R.

9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
(PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

See Attached Figure 1.3 and Table 1.2.

10. 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 to the Missouri Clean Water Commission.

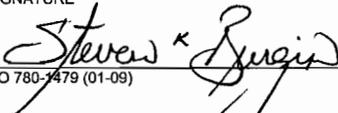
NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Steven K. Burgin, Plant Manager

TELEPHONE WITH AREA CODE

(417) 359-2221

SIGNATURE



DATE SIGNED

3-1-2013

MO 780-7479 (01-09)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?

A map of the facility property boundaries is also included as Figure 2.

**INSTRUCTIONS FOR COMPLETING FORM A
APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT**

1. Check which option is applicable. **Do not check more than one item.** Construction and operating permit refer to permits issued by the Department of Natural Resources' Water Protection Program, Water Pollution Control Branch. Effective Sept. 1, 2008, a facility will be required to use *MISSOURI'S ANTIDegradation Rule AND IMPLEMENTATION PROCEDURE*. For more information, this document can be reviewed at www.dnr.mo.gov/env/wpp/docs/aip-cwc-appr-050708.pdf. This procedure will be applicable to new and expanded wastewater facilities and requires the proposed discharge to a water body to undergo a level of Antidegradation Review, which documents that the use of a water body's available assimilative capacity is justified.
- 1.1 An operating permit and antidegradation review public notice requires a Water Quality/Antidegradation Review Sheet to be submitted with the application (No fee required).

CONSTRUCTION PERMIT FEES

 - A. \$750 for a sewage treatment facility with a design flow of less than 500,000 gallons per day.
 - B. \$2,200 for a sewage treatment facility with a design flow of 500,000 gallons per day or more.

Different application and construction fees are applicable if only sewer and/or lift stations are to be constructed.

OPERATING PERMIT FEES

If the application is for a site-specific permit re-issuance, send no fees.. You will be invoiced separately by the department.

Discharges covered by section 644.052.4 RSMo. (Primary or Categorical Facilities)

 - \$3,500 for a design flow under 1 mgd
 - \$5,000 for a design flow of 1 mgd or more
 - A. Discharges covered by section 644.052.5 RSMo. (Secondary or Non-Categorical Facilities).
 - \$1,500 for a design flow under 1 million gallons per day (mpg)
 - \$2,500 for a design flow of 1 mgd or more

SITE-SPECIFIC STORM WATER DISCHARGE FEES

 - A. \$1,350 for a design flow under 1 mgd.
 - B. \$2,350 for a design flow of 1 mgd or more.

OPERATING PERMIT MODIFICATIONS, including transfers, are subject to the following fees:

 - A. Municipals - \$200 each.
 - B. All others - 25 percent of annual fee.

Note: Facility name and address changes where owner, operator and continuing authority remain the same are not considered transfers.

Incomplete permit applications and/or related engineering documents will be returned by the department if they are not completed in the time frame established in a comment letter from the department to the owner. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.
2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersection, highway, county road, etc.
3. Owner - Provide the legal name and address of owner.
- 3.1 Prior to submitting a permit to public notice, the department shall provide the permit applicant 10 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice. Check YES to review the draft permit prior to public notice. Check NO to waive the process and expedite the permit.
4. Continuing Authority - Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf or contact the appropriate Department of Natural Resources Regional Office.
5. Operator - Provide the name, certificate number and telephone number of the person operating the facility.
6. Provide the name, title and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department, if necessary.
- 7.1 An outfall is the point at which wastewater is discharged. Outfalls should be given in terms of the legal description of the facility. Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used at the outfall pipe and the displayed coordinates submitted. If access to a GPS receiver is not available, please use a mapping system to approximate the coordinates; the department's mapping system is available at www.dnr.mo.gov/internetmapviewer/.
- 7.2 List only your primary Standard Industrial Classification, or SIC, and North American Industry Classification System code for each outfall. The SIC system was devised by the U.S. Office of Management and Budget to cover all economic activities. To find the correct SIC code, an applicant may check his or her unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is that of the operation that generates the most revenue. If this information is not available, the number of employees or, secondly, production rate may be used to determine your SIC code. Additional information is on the Web for Standard Industrial Codes at www.osha.gov/pls/imis/sicsearch.html and for the North American Industry Classification System at www.census.gov/naics or contact the appropriate Department of Natural Resources Regional Office.
- 7.3

**INSTRUCTIONS FOR COMPLETING FORM A
APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT
(CONTINUED)**

8. If you answer yes to A, B, C, D, E or F, then you must complete and file the supplementary form(s) indicated. A U.S. Geological Survey 1" = 2,000' scale map must be submitted with the permit application showing all outfalls, the receiving stream and the location of the downstream property owners. This type of map is available on the Web at www.dnr.mo.gov/internetmapviewer/ or from the Missouri Department of Natural Resources' Division of Geology and Land Survey in Rolla at 573-368-2125.
9. Please provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, please indicate the location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner that the discharge flows to after leaving the right-of-way. For no discharge facilities, provide this information for the location where discharge would flow if there was one. For land application sites, include the owners of the land application sites and all adjacent landowners.
10. Signature - All applications must be signed as follows and the signature must be **original**:
 - A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
 - B. For a partnership or sole proprietorship, by a general partner or the proprietor.
 - C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

This completed form, along with the applicable permit fees, should be submitted to the appropriate Regional Office. Submittal of an incomplete application may result in the application being returned. A map of the department's regional offices with addresses and phone numbers can be viewed on the Web at www.dnr.mo.gov/regions/ro-map.pdf. If there are any questions concerning this form, contact the appropriate Regional Office or the Department of Natural Resources' Water Protection Program, Water Pollution Control Branch, Permits and Engineering Section at 573-751-6825.

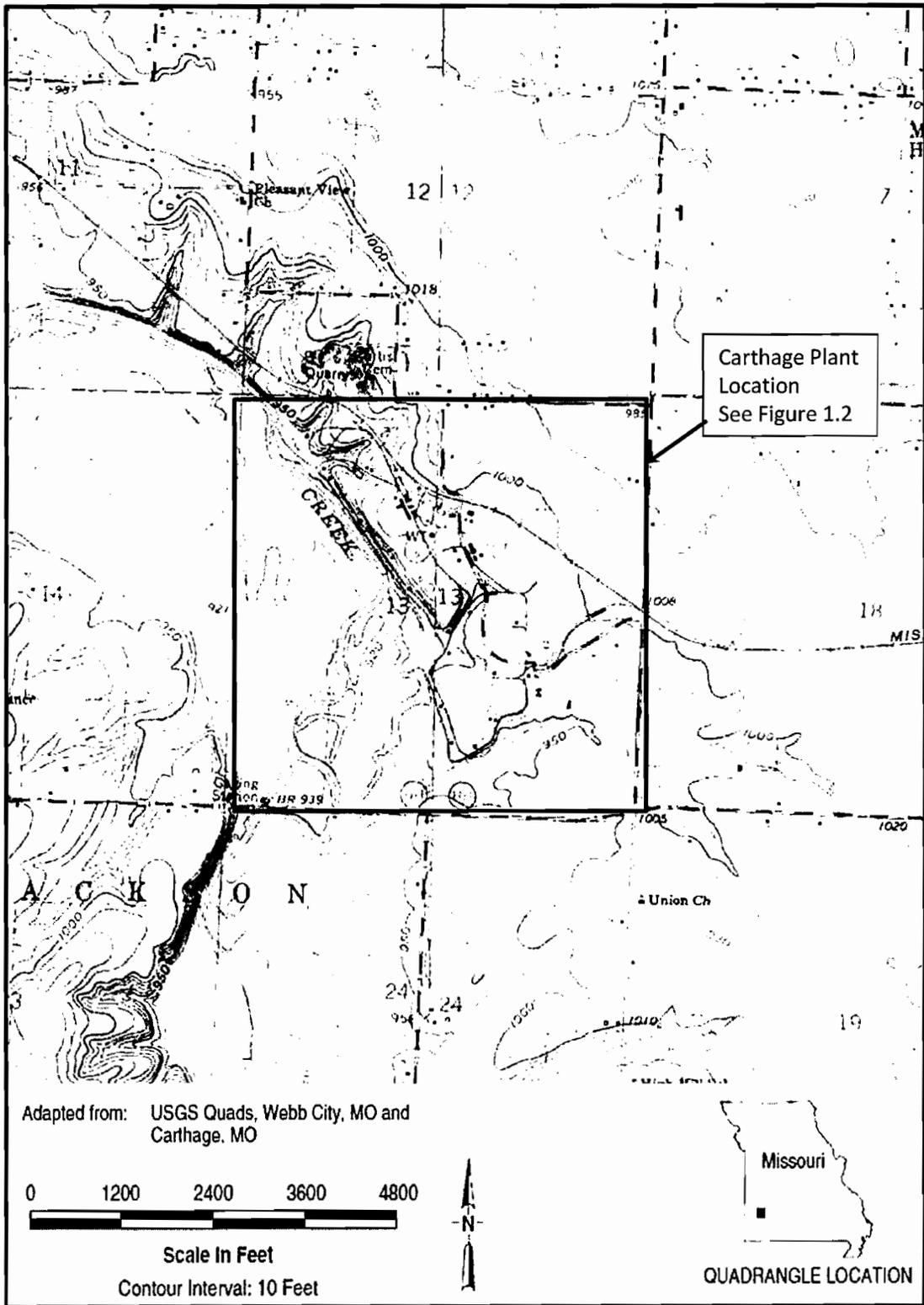


Figure 1.1
 Dyno Nobel Inc.
 Carthage, Missouri
 Permit No. MO-0002402
 Form A Section 8.00

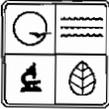
Please see
map in
file.

**Dyno Nobel Inc.
 Carthage Plant
 NPDES Permit Renewal Form A
 9.00 Downstream Landowner(s)
 Table 1.2**

Parcel #	Property Owner					
	Last Name	First Name	Address	City	State	Zip Code
93-15-1-11-6	Quinn	Louis F. Jr. & Carol A.	7448 Count Lane 185	Carthage	MO	64836
93-15-1-11-6.01	Heikes	James & Elayne K.	7295 Count Lane 183	Carthage	MO	64836
93-15-1-11-8	Boggs			Carthage	MO	64836
93-15-1-11-9	Petty	John C. & Ruby E.	18672 Hackberry Lane	Carthage	MO	64836
93-15-1-11-10	Spencer	Barbar J.	7497 County Road 185	Carthage	MO	64836
93-15-1-11-10.01	Athey	William D. & Sonja R.	19367 Gum Road	Carthage	MO	64836
93-15-1-11-13	Dyno Nobel, Inc.		17562 Gum Road	Carthage	MO	64836
93-15-1-11-14	Athey	William D. & Sonja R.	19367 Gum Road	Carthage	MO	64836
933-15-1-11-15	Dyno Nobel, Inc.		17562 Gum Road	Carthage	MO	64836
93-15-1-11-16	Heikes	James & Elayne K.	7295 Count Lane 183	Carthage	MO	64836
93-15-1-11-17	McCall	Carl W. & Felicia V.	18188 Harvest Lane	Carthage	MO	64836
93-15-1-11-18	Blackford	Robert & Mary	18138 Harvest Lane	Carthage	MO	64836
93-15-1-11-19	Blackford	Robert & Mary	18138 Harvest Lane	Carthage	MO	64836

Note:
 See attached Figure 1.3 for location of parcels.

PLEASE SEE
MAP IN FILE



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS & STORM WATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY
 Dyno Nobel, Inc. (Carthage Plant)

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
 MO-0002402

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 (FOUR DIGIT CODE)

A. FIRST 2892 (Explosive Manufacturing) B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

**See Table 1.1 from Form A
 (Section 7.1 Legal Description of Outfalls)**

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
#001 to Outfall #004 and Center Creek (Grand Neosho River Basin)	#007 to Center Creek (Grand Neosho River Basin)
#003 to Outfall #004	#008 to Center Creek (Grand Neosho River Basin)
#004 to Center Creek (Grand Neosho River Basin)	#009 to Center Creek (Grand Neosho River Basin)
#010 to Outfall #004	#011 to Outfall #004

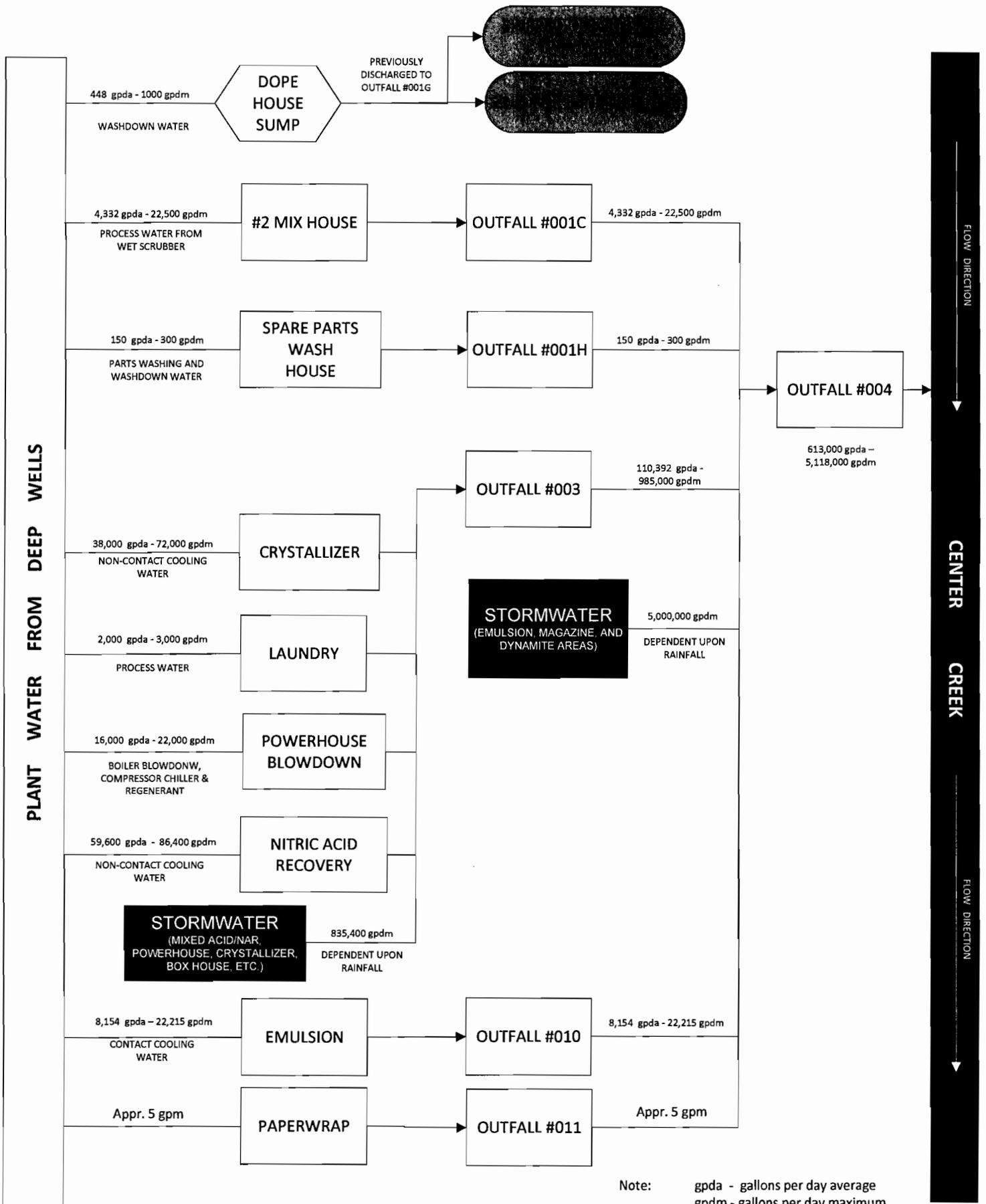
2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Dyno Nobel operates a commercial explosive manufacturing facility in Carthage, Missouri. The facility has historically manufactured nitrate esters (NE) and NE based dynamites since the early 1900s. The Carthage facility began to manufacture packaged emulsion explosives and cast booster explosives on a production scale in 1990 and 1995, respectively. In addition to explosives, other related products that are manufactured at the facility include mixed acids, denitrated sulfuric acid, and ammonium nitrate. The facility is also a distribution point for blasting agents, caps, and initiators.

Note: Outfalls 007 and 009 require significant rainfall and have not flowed in several months. Samples will be collected and submitted as an addendum to the renewal application when a flow is obtained.

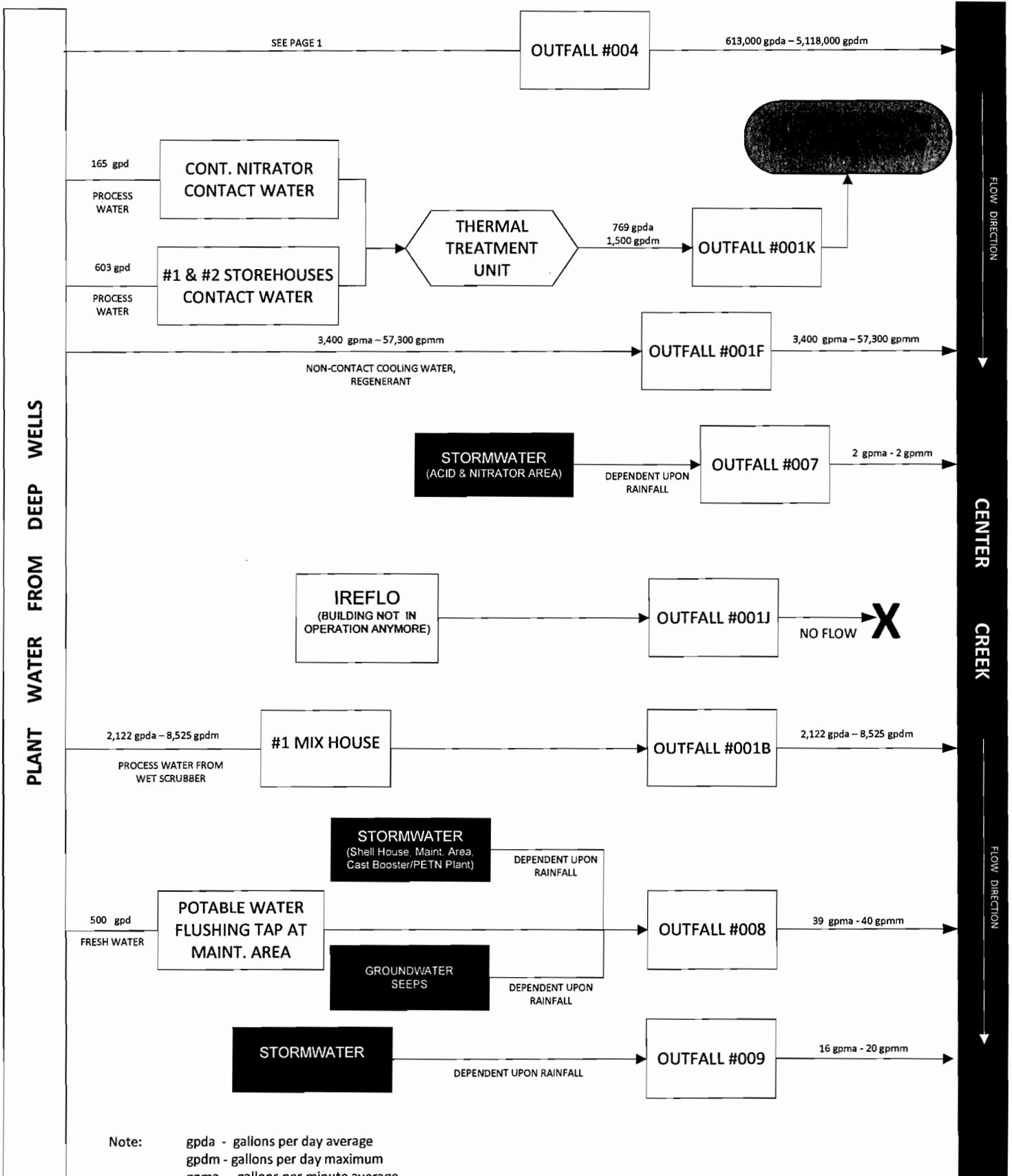
The Paperwrap non-contact cooling water is included as a proposed outfall, Outfall #011.

**DYNO NOBEL, INC.
CARTHAGE MISSOURI
CURRENT PLANT WATER FLOW DIAGRAM 2013**



Note: gpda - gallons per day average
gpdm - gallons per day maximum
gpm - gallons per minute

DYNO NOBEL, INC.
 CARTHAGE MISSOURI
 CURRENT PLANT WATER FLOW DIAGRAM 2013



Note: gpda - gallons per day average
 gpdm - gallons per day maximum
 gpma - gallons per minute average
 gpmm - gallons per minute maximum

2.40 CONTINUED

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 (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				C. DURATION (in days)
		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	A. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
001B	Wet Scrubber	0	0	0	0			
001F	Non-Contact Cooling Water	5	12	0.0034	0.057			5/week
001H	Spare Parts Washing	1	12	.00015	.00030			1/week
001J	Wash Water	0	0	0	0			

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 GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

YES (COMPLETE c.) **NO (GO TO SECTION 2.60)**

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT 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 (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
250,000	Pounds	Dynamite Manufacture	Outfalls 001, 003, 004, 008, and 009
834,000	Pounds	Emulsion Manufacture	Outfalls 010, 004
The dynamite and emulsion manufacturing processes have mass limits.			
60,000	Pounds	Cast Explosives	Outfall 008
28,000	Pounds	PETN Manufacture	Outfall 008

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 WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

YES (COMPLETE THE FOLLOWING TABLE) **NO (GO TO 3.00)**

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	A. REQUIRED	B. PROJECTED		A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

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 RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) NO (GO TO 3.20)

Whole Effluent Toxicity (WET) Tests (Acute and Chronic)

Permit Requirement

3.20 CONTRACT ANALYSIS INFORMATION

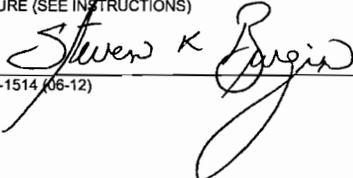
WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

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 and number)	D. POLLUTANTS ANALYZED (list)
Pace Analytical Services, Inc.	9608 Loiret Blvd. Lenexa, KS 66219	(913) 563-1404	WET Tests

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 the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Steven K. Burgin	TELEPHONE NUMBER WITH AREA CODE (417) 359-2221
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 3-1-2013

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 001	
-------------------------------------	--	----------------------------	--

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

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)		B. NO. OF ANALYSES	
	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 AVRG. VALUE		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Biochemical Oxygen Demand (BOD)	29.1	4.61			10.6	1.20	26	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	182	24.5			40.8	4.24	26	mg/L	lbs/day			
C. Total organic Carbon (TOC)	21.5	2.43					1	mg/L	lbs/day			
D. Total Suspended Solids (TSS)	64.6	6.56			9.90	1.01	26	mg/L	lbs/day			
E. Ammonia (as N)	27.4	7.04			8.56	0.97	26	mg/L	lbs/day			
F. Flow	VALUE 21.4				VALUE 9.42		26	gpm		VALUE		
G. Temperature (winter)	VALUE 15.9				VALUE		1	°C		VALUE		
H. Temperature (summer)	VALUE 25.0				VALUE		1	°C		VALUE		
I. pH	MINIMUM 6.98	MAXIMUM 8.34		MAXIMUM			26	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	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 ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (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											
F. Nitrate-Nitrate (as N)	X		21.3	5.46			5.18	0.59	26	mg/L	lbs/day		

Outfall 001

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
G. Nitrogen Total Organic (as N)	X		3.9						mg/L			
H. Oil and Grease		X										
I. Phosphorus (as P) Total (7723-14-0)		X										
J. Sulfate (as SO ₄) (14808-79-8)	X		27.0	6.94			16.1	1.82	mg/L	lbs/day		
K. Sulfide (as S)		X										
L. Sulfite (as SO ₃) (14265-45-3)		X										
M. Surfactants		X										
N. Aluminum Total (7429-90-5)		X										
O. Barium Total (7440-39-3)		X										
P. Boron Total (7440-42-8)		X										
Q. Cobalt Total (7440-48-4)		X										
R. Iron Total (7439-89-6)	X		<50.0						ug/L			
S. Magnesium Total (7439-95-4)	X		15,300						ug/L			
T. Molybdenum Total (7439-98-7)		X										
U. Manganese Total (7439-96-5)		X	<5.0						ug/L			
V. Tin Total (7440-31-5)		X	<50.0						ug/L			
W. Titanium Total (7440-32-6)		X	<10.0						ug/L			

Outfall 001

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE <i>(optional)</i>	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)		X	<10.0						ug/L			
2M. Beryllium, Total (7440-41-7)		X	<1.0						ug/L			
3M. Magnesium, Total (7439-95-4)	X		15,300						ug/L			
4M. Molybdenum, Total (7439-98-7)		X										
5M. Tin, Total (7440-31-5)		X	<50.0						ug/L			
6M. Titanium, Total (7440-32-6)		X	<10.0						ug/L			
7M. Mercury, Total (7439-97-6)		X	<0.20						ug/L			
8M. Selenium, Total (7782-49-2)		X	<15.0						ug/L			
9M. Thallium, Total (7440-28-0)		X	<20.0						ug/L			
10M. Phenols, Total		X	<0.020						mg/L			
RADIOACTIVITY												
(1) Alpha Total		X										
(2) Beta Total		X										
(3) Radium Total		X										
(4) Radium 226 Total		X										

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 003
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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	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	3. UNITS <i>(specify if blank)</i>		4. INTAKE <i>(optional)</i>		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		A. CONCENTRATION	B. MASS	(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	10.5	9.79					1	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	14.8	13.8			6.58	6.13	37	mg/L	lbs/day			
C. Total organic Carbon (TOC)	<1.0						1	mg/L				
D. Total Suspended Solids (TSS)	31.0	28.9			3.06	2.86	37	mg/L	lbs/day			
E. Ammonia (as N)	9.73	9.07			3.11	2.90	37	mg/L	lbs/day			
F. Flow	VALUE 684		VALUE		VALUE 77.6		37	gpm		VALUE		
G. Temperature (winter)	VALUE 24.4		VALUE		VALUE 20		13	°C		VALUE		
H. Temperature (summer)	VALUE 32.8		VALUE		VALUE 26		13	°C		VALUE		
I. pH	MINIMUM 1.2	MAXIMUM 8.91	MINIMUM	MAXIMUM			37	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE <i>(optional)</i>		B. NO. OF ANALYSES	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>	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 AVRG. VALUE <i>(if available)</i>	B. 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												
F. Nitrate—Nitrate (as N)	X		12.9	12.0	2.75	2.57	37	mg/L	lbs/day					

Outfall 003

1. POLLUTANT AND CAS NUMBER (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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)	X		<0.20						1	mg/L				
H. Oil and Grease	X		10.3	9.60			1.93	1.80	37	mg/L	lbs/day			
I. Phosphorus (as P) Total (7723-14-0)		X												
J. Sulfate (as SO ₄) (14808-79-8)	X		92.0	85.8			51.8	48.3	37	mg/L	lbs/day			
K. Sulfide (as S)		X												
L. Sulfite (as SO ₃) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)		X												
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		<50.0						1	ug/L				
S. Magnesium Total (7439-95-4)	X		14,400						1	ug/L				
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X	<5.0						1	ug/L				
V. Tin Total (7440-31-5)		X	<50.0						1	ug/L				
W. Titanium Total (7440-32-6)		X	<10.0						1	ug/L				

Outfall 003

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE <i>(optional)</i>				
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X	<10.0									ug/L		
2M. Beryllium, Total (7440-41-7)		X	<1.0									ug/L		
3M. Magnesium, Total (7439-95-4)	X		14,400									ug/L		
4M. Molybdenum, Total (7439-98-7)		X												
5M. Tin, Total (7440-31-5)		X	<50.0									ug/L		
6M. Titanium, Total (7440-32-6)		X	<10.0									ug/L		
7M. Mercury, Total (7439-97-6)		X	<0.20									ug/L		
8M. Selenium, Total (7782-49-2)		X	<15.0									ug/L		
9M. Thallium, Total (7440-28-0)		X	<20.0									ug/L		
10M. Phenols, Total		X	<0.020									mg/L		
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 004
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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 AVRG. 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)	10.4	53.0			5.4	27.7	17	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	29.6	151			12.7	65.2	17	mg/L	lbs/day			
C. Total organic Carbon (TOC)	3.5						1	mg/L				
D. Total Suspended Solids (TSS)	22.4	115			5.44	27.8	17	mg/L	lbs/day			
E. Ammonia (as N)	13.8	44.4			4.28	9.16	17	mg/L	lbs/day			
F. Flow	VALUE 3554		VALUE		VALUE 426		17	gpm				
G. Temperature (winter)	VALUE 15.5		VALUE		VALUE 13.0		8	°C				
H. Temperature (summer)	VALUE 25.0		VALUE		VALUE 22.0		9	°C				
I. pH	MINIMUM 6.82	MAXIMUM 7.77	MINIMUM	MAXIMUM			17	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (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 AVRG. 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										
F. Nitrate-- Nitrate (as N)	X		81.0	133	13.3	14.6	17	mg/L	lbs/day			

Outfall 004

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED 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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)	X		3.3						1	mg/L				
H. Oil and Grease	X		12.1	517			2.40	20.2	17	mg/L	lbs/day			
I. Phosphorus (as P) Total (7723-14-0)		X												
J. Sulfate (as SO ₄) (14808-79-8)	X		118	1153			43.5	148	17	mg/L	lbs/day			
K. Sulfide (as S)		X												
L. Sulfite (as SO ₃) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)		X												
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		<50.0						1	ug/L				
S. Magnesium Total (7439-95-4)	X		14,200						1	ug/L				
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X	<5.0						1	ug/L				
V. Tin Total (7440-31-5)		X	<50.0						1	ug/L				
W. Titanium Total (7440-32-6)		X	<10.0						1	ug/L				

Outfall 004

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	C. LONG TERM AVRG. VALUE <i>(if available)</i>		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)		X	<10.0					ug/L				
2M. Beryllium, Total (7440-41-7)		X	<1.0					ug/L				
3M. Magnesium, Total (7439-95-4)	X		14,200					ug/L				
4M. Molybdenum, Total (7439-98-7)		X										
5M. Tin, Total (7440-31-5)		X	<50.0					ug/L				
6M. Titanium, Total (7440-32-6)		X	<10.0					ug/L				
7M. Mercury, Total (7439-97-6)		X	<0.20					ug/L				
8M. Selenium, Total (7782-49-2)		X	<15.0					ug/L				
9M. Thallium, Total (7440-28-0)		X	<20.0					ug/L				
10M. Phenols, Total		X	<0.020					mg/L				
RADIOACTIVITY												
(1) Alpha Total		X										
(2) Beta Total		X										
(3) Radium Total		X										
(4) Radium 226 Total		X										

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 007	
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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 AVRG. 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)	13.8	0.27			7.4	0.15	3	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	28.1	0.56			20.2	0.40	3	mg/L	lbs/day			
C. Total organic Carbon (TOC)	N/A											
D. Total Suspended Solids (TSS)	9.00	0.18			6.73	0.13	3	mg/L	lbs/day			
E. Ammonia (as N)	N/A											
F. Flow	VALUE 2		VALUE		VALUE 1.66		3	gpm		VALUE		
G. Temperature (winter)	VALUE 17.1		VALUE		VALUE		1	°C		VALUE		
H. Temperature (summer)	VALUE 23.9		VALUE		VALUE		1	°C		VALUE		
I. pH	MINIMUM 7.40	MAXIMUM 7.82	MINIMUM	MAXIMUM			3	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	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- TRATION	B. MASS	A. LONG TERM AVRG. 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)														
B. Chlorine Total Residual														
C. Color														
D. Fecal Coliform														
E. Fluoride (16984-48-8)														
F. Nitrate-Nitrate (as N)	X		20.9	0.42			8.17	0.16	3	mg/L	lbs/day			

Outfall #007 requires a significant rainfall and has not flowed for several months. A sample will be collected and submitted as an addendum to the renewal, whenever runoff begins.

Outfall 007

1. POLLUTANT AND CAS NUMBER (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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)														
H. Oil and Grease														
I. Phosphorus (as P) Total (7723-14-0)														
J. Sulfate (as SO ₄) (14808-79-8)	X		30.0	0.72			13.33	0.28	3	mg/L	lbs/day			
K. Sulfide (as S)														
L. Sulfite (as SO ₃) (14265-45-3)														
M. Surfactants														
N. Aluminum Total (7429-90-5)														
O. Barium Total (7440-39-3)														
P. Boron Total (7440-42-8)														
Q. Cobalt Total (7440-48-4)														
R. Iron Total (7439-89-6)														
S. Magnesium Total (7439-95-4)														
T. Molybdenum Total (7439-98-7)														
U. Manganese Total (7439-96-5)														
V. Tin Total (7440-31-5)														
W. Titanium Total (7440-32-6)														

Outfall 007

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE <i>(optional)</i>		B. NO. OF ANALYSES
			A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-36-9)													
2M. Beryllium, Total (7440-41-7)													
3M. Magnesium, Total (7439-95-4)													
4M. Molybdenum, Total (7439-98-7)													
5M. Tin, Total (7440-31-5)													
6M. Titanium, Total (7440-32-6)													
7M. Mercury, Total (7439-97-6)													
8M. Selenium, Total (7782-49-2)													
9M. Thallium, Total (7440-28-0)													
10M. Phenols, Total													
RADIOACTIVITY													
(1) Alpha Total													
(2) Beta Total													
(3) Radium Total													
(4) Radium 226 Total													

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

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 008	
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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)		B. NO. OF ANALYSES
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	2.47	0.87			3	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	10.5	5.05			3	mg/L	lbs/day			
C. Total organic Carbon (TOC)	1.4				1	mg/L				
D. Total Suspended Solids (TSS)	7.60	2.68			3	mg/L	lbs/day			
E. Ammonia (as N)	1.1				1	mg/L	lbs/day			
F. Flow	VALUE 3554		VALUE		3	gpm		VALUE		
G. Temperature (winter)	VALUE 17.1		VALUE		1	°C		VALUE		
H. Temperature (summer)	VALUE 23.9		VALUE		1	°C		VALUE		
I. pH	MINIMUM 7.15	MAXIMUM 7.58	MINIMUM	MAXIMUM	3	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (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 AVRG. VALUE		
			(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												
F. Nitrate—Nitrate (as N)	X		6.07	0.58			3.39	1.20	3	mg/L	lbs/day			

Outfall 008

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>		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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)	X		1.1						1	mg/L				
H. Oil and Grease	X		<0.1						1	mg/L				
I. Phosphorus (as P) Total (7723-14-0)		X												
J. Sulfate (as SO ₄) (14808-79-8)	X		63.0	17.8		44.0	13.1		3	mg/L	lbs/day			
K. Sulfide (as S)		X												
L. Sulfite (as SO ₃) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)		X												
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		<50.0						1	ug/L				
S. Magnesium Total (7439-95-4)	X		51,400						1	ug/L				
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X	<5.0						1	ug/L				
V. Tin Total (7440-31-5)		X	<50.0						1	ug/L				
W. Titanium Total (7440-32-6)		X	<10.0						1	ug/L				

Outfall 008

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE <i>(optional)</i>	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS										
1M. Antimony, Total (7440-36-9)		X	<10.0					ug/L		
2M. Beryllium, Total (7440-41-7)		X	<1.0					ug/L		
3M. Magnesium, Total (7439-95-4)	X		5,140					ug/L		
4M. Molybdenum, Total (7439-98-7)		X								
5M. Tin, Total (7440-31-5)		X	<50.0					ug/L		
6M. Titanium, Total (7440-32-6)		X	<10.0					ug/L		
7M. Mercury, Total (7439-97-6)		X	<0.20					ug/L		
8M. Selenium, Total (7782-49-2)		X	<15.0					ug/L		
9M. Thallium, Total (7440-28-0)		X	<20.0					ug/L		
10M. Phenols, Total		X	<0.020					mg/L		
RADIOACTIVITY										
(1) Alpha Total		X								
(2) Beta Total		X								
(3) Radium Total		X								
(4) Radium 226 Total		X								

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS										OUTFALL NO.
										Outfall 009

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)		B. NO. OF ANALYSES	
	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 AVRG. VALUE		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Biochemical Oxygen Demand (BOD)	1.98	0.48			1.54	0.37	2	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	15.1	3.63			9.34	2.24	2	mg/L	lbs/day			
C. Total organic Carbon (TOC)	N/A											
D. Total Suspended Solids (TSS)	13.1	3.15			9.85	2.37	2	mg/L	lbs/day			
E. Ammonia (as N)	N/A											
F. Flow	VALUE 20				VALUE 20		2	gpm		VALUE		
G. Temperature (winter)	VALUE 17.1				VALUE		1	°C		VALUE		
H. Temperature (summer)	VALUE 23.9				VALUE		1	°C		VALUE		
I. pH	MINIMUM 7.44	MAXIMUM 7.48			MAXIMUM		2	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (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 AVRG. VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION		(2) MASS
A. Bromide (24959-67-9)														
B. Chlorine Total Residual														
C. Color														
D. Fecal Coliform														
E. Fluoride (16984-48-8)														
F. Nitrate—Nitrate (as N)	X		5.98	1.44			5.05	1.21	2	mg/L	lbs/day			

Outfall #009 requires a significant rainfall and has not flowed for several months. A sample will be collected and submitted as an addendum to the renewal, whenever runoff begins.

Outfall 009

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "x"		3. EFFLUENT						4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED 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. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)														
H. Oil and Grease														
I. Phosphorus (as P) Total (7723-14-0)														
J. Sulfate (as SO ₄) (14808-79-8)	X		42.0	10.09			41.0	9.85	2	mg/L	lbs/day			
K. Sulfide (as S)														
L. Sulfite (as SO ₃) (14265-45-3)														
M. Surfactants														
N. Aluminum Total (7429-90-5)														
O. Barium Total (7440-39-3)														
P. Boron Total (7440-42-8)														
Q. Cobalt Total (7440-48-4)														
R. Iron Total (7439-89-6)														
S. Magnesium Total (7439-95-4)														
T. Molybdenum Total (7439-98-7)														
U. Manganese Total (7439-96-5)														
V. Tin Total (7440-31-5)														
W. Titanium Total (7440-32-6)														

Outfall 009

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>		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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)														
2M. Beryllium, Total (7440-41-7)														
3M. Magnesium, Total (7439-95-4)														
4M. Molybdenum, Total (7439-98-7)														
5M. Tin, Total (7440-31-5)														
6M. Titanium, Total (7440-32-6)														
7M. Mercury, Total (7439-97-6)														
8M. Selenium, Total (7782-49-2)														
9M. Thallium, Total (7440-28-0)														
10M. Phenols, Total														
RADIOACTIVITY														
(1) Alpha Total														
(2) Beta Total														
(3) Radium Total														
(4) Radium 226 Total														

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS		OUTFALL NO. Outfall 010
--	--	----------------------------

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)	D. NO. OF ANALYSES	4. INTAKE (optional)		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)				A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					
A. Biochemical Oxygen Demand (BOD)					mg/L	1			
B. Chemical Oxygen Demand (COD)	80				mg/L	1			
C. Total organic Carbon (TOC)	1.4				mg/L	1			
D. Total Suspended Solids (TSS)	56.9	8.12		24.2	mg/L	37	1.58	lbs/day	
E. Ammonia (as N)	2928	205		1131	mg/L	37	79.0	lbs/day	
F. Flow	VALUE 15.4		VALUE	5.81	gpm	37		VALUE	
G. Temperature (winter)	VALUE 18.4		VALUE	10.0	°C	15		VALUE	
H. Temperature (summer)	VALUE 27.7		VALUE	20.0	°C	15		VALUE	
I. pH	MINIMUM 6.55	MAXIMUM 8.48	MINIMUM	MAXIMUM	STANDARD UNITS	37			

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 for 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 NUMBER (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 (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. Bromide (24959-67-9)		X										
B. Chlorine Total Residual		X										
C. Color		X										
D. Fecal Coliform		X										
E. Fluoride (16984-48-8)		X										
F. Nitrate-Nitrate (as N)	X		1940	136			1021	71.3	mg/L	lbs/day	37	

Outfall 010

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen Total Organic (as N)	X		1907				1	mg/L				
H. Oil and Grease	X		<0.1				1	mg/L				
I. Phosphorus (as P) Total (7723-14-0)		X										
J. Sulfate (as SO ₄) (14808-79-8)	X		5.0	0.35			1	mg/L	lbs/day			
K. Sulfide (as S)		X										
L. Sulfite (as SO ₃) (14265-45-3)		X										
M. Surfactants		X										
N. Aluminum Total (7429-90-5)		X										
O. Barium Total (7440-39-3)		X										
P. Boron Total (7440-42-8)		X										
Q. Cobalt Total (7440-48-4)		X										
R. Iron Total (7439-89-6)	X		<50.0				1	ug/L				
S. Magnesium Total (7439-95-4)	X		51,400				1	ug/L				
T. Molybdenum Total (7439-98-7)		X										
U. Manganese Total (7439-96-5)		X	<5.0				1	ug/L				
V. Tin Total (7440-31-5)		X	<50.0				1	ug/L				
W. Titanium Total (7440-32-6)		X	<10.0				1	ug/L				

Outfall 010

1. POLLUTANT AND CAS NUMBER (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)		A. CONCENTRATION	B. MASS	D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X	<10.0						ug/L					
2M. Beryllium, Total (7440-41-7)		X	<1.0						ug/L					
3M. Magnesium, Total (7439-95-4)	X		5,140						ug/L					
4M. Molybdenum, Total (7439-98-7)		X												
5M. Tin, Total (7440-31-5)		X	<50.0						ug/L					
6M. Titanium, Total (7440-32-6)		X	<10.0						ug/L					
7M. Mercury, Total (7439-97-6)		X	<0.20						ug/L					
8M. Selenium, Total (7782-49-2)		X	<15.0						ug/L					
9M. Thallium, Total (7440-28-0)		X	<20.0						ug/L					
10M. Phenols, Total		X	<0.020						mg/L					
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

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

FORM C
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS										OUTFALL NO. Outfall 011
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)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	<1.0				1	mg/L				
B. Chemical Oxygen Demand (COD)	<1.0				1	mg/L				
C. Total organic Carbon (TOC)	<0.50				1	mg/L				
D. Total Suspended Solids (TSS)	<0.10				1	mg/L	lbs/day			
E. Ammonia (as N)	<0.10				1	mg/L	lbs/day			
F. Flow	VALUE 5.0				1	gpm	VALUE			
G. Temperature (winter)	VALUE 17.0				1	°C	VALUE			
H. Temperature (summer)	VALUE				0	°C	VALUE			
I. pH	MINIMUM 7.1	MAXIMUM 7.1			1	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for 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 NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	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. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES	
	(1) CONCENTRATION	(2) MASS	(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										
F. Nitrate—Nitrate (as N)		X	<0.1			1	mg/L					

Outfall 011

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED 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 AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)	X		4.6						1	mg/L				
H. Oil and Grease	X		<0.1						1	mg/L				
I. Phosphorus (as P) Total (7723-14-0)		X												
J. Sulfate (as SO ₄ ²⁻) (14808-79-8)	X		5.0	0.35					1	mg/L	lbs/day			
K. Sulfide (as S)		X												
L. Sulfite (as SO ₃ ²⁻) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum Total (7429-90-5)		X												
O. Barium Total (7440-39-3)		X												
P. Boron Total (7440-42-8)		X												
Q. Cobalt Total (7440-48-4)		X												
R. Iron Total (7439-89-6)	X		<50.0						1	ug/L				
S. Magnesium Total (7439-95-4)	X		51,400						1	ug/L				
T. Molybdenum Total (7439-98-7)		X												
U. Manganese Total (7439-96-5)		X	<5.0						1	ug/L				
V. Tin Total (7440-31-5)		X	<50.0						1	ug/L				
W. Titanium Total (7440-32-6)		X	<10.0						1	ug/L				

Outfall 011

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE <i>(optional)</i>	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE <i>(if available)</i>	B. MAXIMUM 30 DAY VALUE <i>(if available)</i>	C. LONG TERM AVRG. VALUE <i>(if available)</i>		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
			(1) CONCENTRATION	(1) CONCENTRATION	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		
METALS AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)		X	<10.0							ug/L		
2M. Beryllium, Total (7440-41-7)		X	<1.0							ug/L		
3M. Magnesium, Total (7439-95-4)	X		5,140							ug/L		
4M. Molybdenum, Total (7439-98-7)		X										
5M. Tin, Total (7440-31-5)		X	<50.0							ug/L		
6M. Titanium, Total (7440-32-6)		X	<10.0							ug/L		
7M. Mercury, Total (7439-97-6)		X	<0.20							ug/L		
8M. Selenium, Total (7782-49-2)		X	<15.0							ug/L		
9M. Thallium, Total (7440-28-0)		X	<20.0							ug/L		
10M. Phenols, Total		X	<0.020							mg/L		
RADIOACTIVITY												
(1) Alpha Total		X										
(2) Beta Total		X										
(3) Radium Total		X										
(4) Radium 226 Total		X										

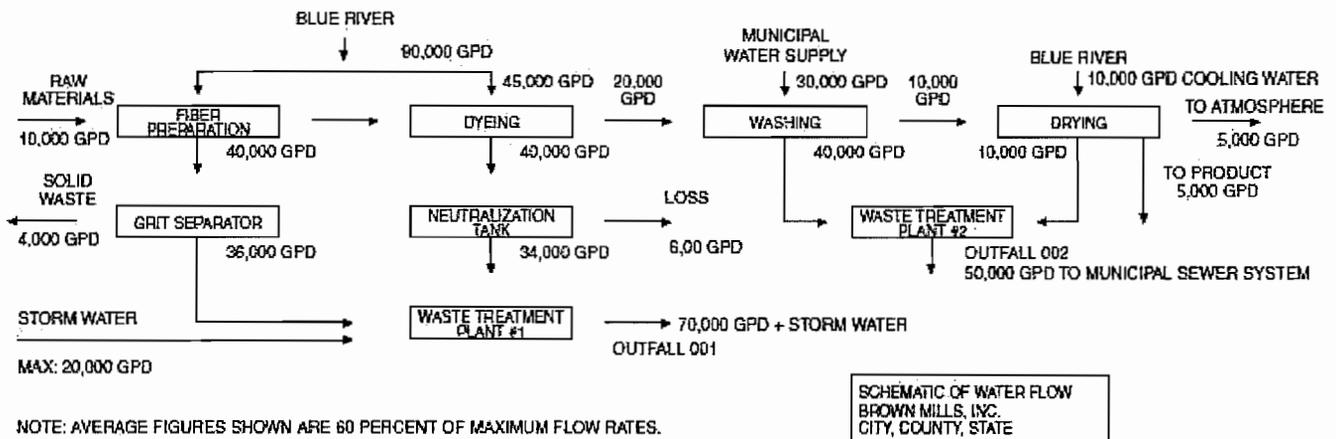
**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE
PERMIT FORM C – MANUFACTURING, COMMERCIAL,
MINING AND SILVICULTURE OPERATIONS.**

All blanks must be filled in when the application is submitted to the appropriate regional office (see map). The form must be signed as indicated.

This application is to be completed only for wastewater facilities with a discharge. Include any facility with possibility of discharge, even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, then sufficient information should be attached so that an evaluation of the discharge can be made.

- 1.00 Name of Facility – By what title or name is this facility known locally?
- 1.10 and 1.20 Self-explanatory.
- 2.00 List in descending order of significance the four digit Standard Industrial Classification (SIC) codes that best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words.

SIC code numbers are descriptions that may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, that is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, contact the Missouri Department of Natural Resources Regional office in your area (see map).
- 2.10 Point of discharge should be given in terms of the legal description of the waste treatment plant, location or sufficient information so that it may be located by the Missouri Clean Water Commission staff.
- 2.20 Receiving Water – the name of the stream to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.
- 2.30 Self-explanatory.
- 2.40 A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water and storm water runoff. You may group similar operations into a single unit labeled to correspond to the more detailed listing. The water balance should show average and maximum flows. Show all significant losses of water to products, atmosphere, discharge and public sewer systems. You should use actual measurements whenever available; otherwise, use your best estimate. An example of any acceptable line drawing appears below.



B. List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or a distillation tower"). You may estimate the flow contributed by each source if no data is available, and for storm water, you may use any reasonable measure of duration, volume or frequency. For each treatment unit, indicate its size, flow rate and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table A to fill in column 3B for each treatment unit. Insert "XX" into column 3B if no code corresponds to a treatment unit you list.

TABLE A – CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

1-A	.....Ammonia Stripping	1-M	.....Grit Removal
1-B	.....Dialysis	1-N	.....Microstraining
1-C	.....Diatomaceous Earth Filtration	1-O	.....Mixing
1-D	.....Distillation	1-P	.....Moving Bed Filters
1-E	.....Electrodialysis	1-Q	.....Multimedia Filtration
1-F	.....Evaporation	1-R	.....Rapid Sand Filtration
1-G	.....Flocculation	1-S	.....Reverse Osmosis (Hyperfiltration)
1-H	.....Flotation	1-T	.....Screening
1-I	.....Foam Fractionation	1-U	.....Sedimentation (Settling)
1-J	.....Freezing	1-V	.....Slow Sand Filtration
1-K	.....Gas-Phase Separation	1-W	.....Solvent Extraction
1-L	.....Grinding (Comminutors)	1-X	.....Sorption

CHEMICAL TREATMENT PROCESSES

2-A	.....Carbon Absorption	2-G	.....Disinfection (Ozone)
2-B	.....Chemical Oxidation	2-H	.....Disinfection (Other)
2-C	.....Chemical Precipitation	2-I	.....Electrochemical Treatment
2-D	.....Coagulation	2-J	.....Ion Exchange
2-E	.....Dechlorination	2-K	.....Neutralization
2-F	.....Disinfection (Chlorine)	2-L	.....Reduction

BIOLOGICAL TREATMENT PROCESSES

3-A	.....Activated Sludge	3-E	.....Pre-Aeration
3-B	.....Aerated Lagoons	3-F	.....Spray Irrigation/Land Application
3-C	.....Anaerobic Treatment	3-G	.....Stabilization Ponds
3-D	.....Nitrification-Denitrification	3-H	.....Trickling Filtration

OTHER PROCESSES

4-A	.....Discharge to Surface Water	4-C	.....Reuse/Recycle of Treated Effluent
4-B	.....Ocean Discharge Through Outfall	4-D	.....Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5-A	.....Aerobic Digestion	5-M	.....Heat Drying
5-B	.....Anaerobic Digestion	5-N	.....Heat Treatment
5-C	.....Belt Filtration	5-O	.....Incineration
5-D	.....Centrifugation	5-P	.....Land Application
5-E	.....Chemical Conditioning	5-Q	.....Landfill
5-F	.....Chlorine Treatment	5-R	.....Pressure Filtration
5-G	.....Composting	5-S	.....Pyrolysis
5-H	.....Drying Beds	5-T	.....Sludge Lagoons
5-I	.....Elutriation	5-U	.....Vacuum Filtration
5-J	.....Flotation Thickening	5-V	.....Vibration
5-K	.....Freezing	5-W	.....Web Oxidation
5-L	.....Gravity Thickening		

2.40 C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measures during days when discharge occurred within the last year in the "Long Term Average" columns.

2.50 A. All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by BPT, BCT, or BAT guidelines. If you are unsure whether you are covered by a promulgated effluent guideline, check with your Missouri Department of Natural Resources' Regional Office. You must check yes if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check no.

B. An effluent guideline is expressed in terms of production (or other measure of operation) if the limitations are expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

C. This item must be completed only if you checked yes to item B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated.

Report quantities in the units of measurement used in the applicable effluent guideline. The figures provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation, but may not be based on design capacity or on predictions of future increases in operation.

2.60 A. If you check yes to this question, complete all parts of the chart, or attach a copy of any previous submission you have made containing the same information.

B. You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

3.00 These items require you to collect and report data on the pollutants discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

GENERAL INSTRUCTIONS. Part A requires you to report at least one analysis for each pollutant. Part B requires you to mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2A or 2B, Part B) based on your best estimate, and test for those which you believe to be present. Part C requires you to list any of a group of pollutants which you believe to be present, with a brief explanation of why you believe it to be present. (See specific instructions on the form and below Parts A through C).

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as a concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper. (Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Part B).

CONCENTRATION

ppm	.....	parts per million
mg/L	.....	milligrams per liter
ppb	.....	parts per billion
ug/L	.....	micrograms per liter

MASS

lbs	.....	pounds
ton	.....	tons (English tons)
mg	.....	Milligrams
g	.....	grams
kg	.....	kilograms
T	.....	tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "number of analyses" columns (columns 2A and 2B, Part A, and columns 3A and 3D, Part B). The Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a complete sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns (column 2C, Part A, and column 3C, Part B), and the total number of daily values under the "Number of Analyses" columns (column 2D, Part A, and column 3D, Part B). Also, determine the average of all daily values taken during each calendar month, and report the highest average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Values" columns (column 2B, Part A, and column 3B, Part B).

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLE. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the Intake columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
 2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
 3. When applicable, a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.
- 3.00 Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Missouri Department of Natural Resources may waive the requirements to test for one or more of these pollutants, upon a determination that testing for the pollutant(s) is not appropriate for your effluent.
- Use composite samples for all pollutants in this part, except use grab samples for pH and temperature. See discussion in instructions above for definitions of the columns in Part A. The "Long Term Average Values" column (column 2C) and "Maximum 30 Day Values" column (column 2B) are not compulsory but should be filled out if data is available.
- 3.00 Part B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff.
- Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease and fecal coliform. The Long Term Average Values column (column 3C) and Maximum 30 Day Values column (column 3B) are not compulsory but should be filled out if data is available.
- 3.00 List any pollutants in Table B that you believe to be present and explain why you believe them to be present in part C. No analysis is required, but you have analytical, you must report it.

TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dichlorvos	Nalad
	Diethylamine	Napthenic acid
HAZARDOUS SUBSTANCES	Dimethylamine	Nitrotoluene
	Dintrobenzene	Parathion
Acetaldehyde	Diquat	Phenolsulfonate
Allyl alcohol	Disulfoton	Phosgene
Allyl chloride	Diuron	Propargite
Amyl acetate	Epichlorohydrin	Propylene oxide
Aniline	Ethion	Pyrethrins
Benzonitrile	Ethylene diamine	Quinoline
Benzyl chloride	Ethylene dibromide	Resorcinol
Butyl acetate	Formaldehyde	Strontium
Butylamine	Furfural	Strychnine
Captan	Guthion	Styrene

TABLE B – (continued)

HAZARDOUS SUBSTANCES

Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
2,4-D (2,4-Dichloro-
Phenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
2,2-Dichloropropionic acid

HAZARDOUS SUBSTANCES

Isoprene
Isopropanolamine
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl parathion
Mevinphos
Mexacarbate
Monethyl amine
Monomethyl amine

HAZARDOUS SUBSTANCES

2, 4, 5-T (2,4,5-Trichloro-
phenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2, 4, 5-TP (2-(2,4,5-Trichloro-
phenoxy) propanoic acid)
Trichlorofon
Triethanolamine
Triethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

3.10 Self-explanatory. Additional information may be requested by the Missouri Department of Natural Resources.

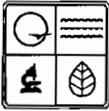
3.20 Self-explanatory.

3.30 The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application . . . shall upon conviction, be punished by a fine of no more \$10,000 or by imprisonment for not more than six months, or both.

All applications must be signed as follows and the signature must be original.

- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor.
- C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORMD-APPLICATION FOR DISCHARGE PERMIT
PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Dyno Nobel Inc. - Carthage Plant

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO - 0002402

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the 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 and 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 |
| Landfill | Textile mills |
| Mechanical products manufacturing | Timber products processing |
| Nonferrous metals manufacturing | |

Note: Outfalls 007 and 009 require significant rainfall and have not flowed in several months. Samples will be collected and submitted as an addendum to the renewal application when a flow is obtained.

The Paperwrap non-contact cooling water is included as a proposed outfall, Outfall #011.

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	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 (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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<10.0					1	ug/L	
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<1.0					1	ug/L	
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		15,300					1	ug/L	
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<50.0					1	ug/L	
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<10.0					1	ug/L	
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<0.20					1	ug/L	
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<15.0					1	ug/L	
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<20.0					1	ug/L	
10M. Phenols, Total	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<0.050					1	ug/L	
DIOXIN												
2,3,7,8 – Tetra – chlorodibenzo-p-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

DESCRIBE RESULTS

Outfall #001

CONTINUED FROM PAGE 3

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)		A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS														
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
13V. Dichloro- difluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0						ug/L				
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L				

MO 780-1516 (02-12)

PAGE 3

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				D. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		C. LONG TERM AVRG. VALUE (if available)		A. CONC-TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION						(2) MASS
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)												
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
27V. 1,1,1 – Tri-chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
28V. 1,1,2 – Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								

GC/MS FRACTION – ACID COMPOUNDS

1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							
4A. 4,6 – Dinitro - O-Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532							
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532							
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532							
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532							
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106							

Outfall #001

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. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
15B. Butyl Benzyl Phthalate (85-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
20B. 1,2-Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
21B. 1,3-Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		

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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)												
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213						1	ug/L	
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	

Outfall #001

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)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)											
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L		
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L		
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L		
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L		
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L		
GC/MS FRACTION - PESTICIDES											
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								

CONTINUED FROM THE PAGE 7

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#001

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. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - PESTICIDES (continued)												
17P. Heptachlor Epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18P. PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19P. PBC-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20P. PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21P. PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
22P. PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
23P. PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
24P. PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
25P. Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
J. RADIOACTIVITY												
(1) Alpha Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(2) Beta Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(3) Radium Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(4) Radium 226 Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	OUTFALL NUMBER #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. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE CONCENTRATION	B. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS											
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>					1			
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0				1	ug/L		
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L		
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14,400				1	ug/L		
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<50.0				1	ug/L		
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0				1	ug/L		
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.20				1	ug/L		
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<15.0				1	ug/L		
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<20.0				1	ug/L		
10M. Phenols, Total	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.050				1	ug/L		
DIOXIN											
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>								

Outfall #003

CONTINUED FROM PAGE 3

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)		A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - VOLATILE COMPOUNDS											
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0						ug/L	1
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						ug/L	1

CONTINUED FROM THE FRONT

NPDES # (IF ASSIGNED) MO-0002402

OUTFALL NUMBER #003

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)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG.	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)												
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
27V. 1,1,1 – Tri-chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
28V. 1,1,2 – Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L			
GC/MS FRACTION – ACID COMPOUNDS												
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			
4A. 4,6 – Dinitro – O-Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1	ug/L			
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1	ug/L			
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1	ug/L			
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1	ug/L			
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L			

Outfall #003

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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
20B. 1,2-Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
21B. 1,3-Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	

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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)												
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213						1	ug/L	
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

Outfall #003

CONTINUED FROM THE FRONT

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. LONG TERM AVRG. VALUE		B. MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS					(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)													
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
46B. 1,2,4-Trichlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
GC/MS FRACTION - PESTICIDES													
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
5P. δ-BHC (319-86-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	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-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. 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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES (2) MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0						1	ug/L	
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14,200						1	ug/L	
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<50.0						1	ug/L	
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0						1	ug/L	
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.20						1	ug/L	
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<15.0						1	ug/L	
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<20.0						1	ug/L	
10M. Phenols, Total	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.050						1	ug/L	
DIOXIN												
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

DESCRIBE RESULTS

Outfall #004

CONTINUED FROM PAGE 3

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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS												
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0						1	ug/L	
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT		D. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	B. MAXIMUM 30 DAY VALUE (if available)		A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				A. MAXIMUM DAILY VALUE (1) CONCENTRATION						(2) MASS	(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)										
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
23V. 1,1,2,2 - Tetra- chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
26V. 1,2 - Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
27V. 1,1,1 - Tri - chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
28V. 1,1,2 - Tri- chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
29V. Trichloro - ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			
30V. Trichloro - fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0			ug/L			

GC/MS FRACTION - ACID COMPOUNDS										
1A. 2 - Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			
2A. 2,4 - Dichloro - phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			
3A. 2,4 - Dimethyl - phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			
4A. 4,6 - Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532			ug/L			
5A. 2,4 - Dinitro - phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532			ug/L			
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532			ug/L			
8A. P - Chloro - M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
9A. Pentachloro - phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532			ug/L			
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			
11A. 2,4,6 - Trichloro- phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106			ug/L			

Outfall #004

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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
20B. 1,2-Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		
21B. 1,3-Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1		

CONTINUED FROM THE PAGE 5

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#004

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. LONG TERM VALUE CONCENTRATION (1)	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GCMS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)												
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213						1	ug/L	
24B. Diethyl Phthalate (84-56-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
40B. Nitrobenzene (98-96-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

Outfall #004

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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. MASS (2) MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)												
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
GC/MS FRACTION - PESTICIDES												
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

CONTINUED FROM THE PAGE 7

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#004

3. EFFLUENT

2. MARK "x"

1. POLLUTANT AND CAS NUMBER (if available)	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	4. UNITS		5. INTAKE (optional)		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
18P. PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
19P. PBC-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
20P. PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
21P. PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
22P. PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
23P. PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
24P. PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
25P. Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
J. RADIOACTIVITY															
(1) Alpha Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
(2) Beta Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
(3) Radium Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
(4) Radium 226 Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	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. 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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO. OF ANALYSES (2) MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input type="checkbox"/>									
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input type="checkbox"/>									
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input type="checkbox"/>									
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input type="checkbox"/>									
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input type="checkbox"/>									
6M. Thallium Total (7440-32-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input type="checkbox"/>									
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input type="checkbox"/>									
10M. Phenols, Total	—	<input type="checkbox"/>	<input type="checkbox"/>									
DIOXIN												
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									

Outfall #007 requires a significant rainfall and has not flowed for several months. A sample will be collected and submitted as an addendum to the renewal, whenever runoff begins.

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	OUTFALL NUMBER #008

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. 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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<10.0					1			
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<1.0					1			
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		5,140					1			
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<50.0					1			
6M. Thallium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<10.0					1			
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<0.20					1			
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<15.0					1			
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<20.0					1			
10M. Phenols, Total	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<0.050					1			
DIOXIN													
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Outfall #008

CONTINUED FROM PAGE 3

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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - VOLATILE COMPOUNDS												
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0						1	ug/L	
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	

CONTINUED FROM THE FRONT

NPDES # (IF ASSIGNED) MO-0002402

OUTFALL NUMBER #008

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. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)												
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
27V. 1,1,1 – Tri-chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
28V. 1,1,2 – Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
GC/MS FRACTION – ACID COMPOUNDS												
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
4A. 4,6 – Dinitro – O-Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532						1	ug/L	
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532						1	ug/L	
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532						1	ug/L	
8A. P – Chloro – M Cresol (99-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532						1	ug/L	
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	

Outfall #008

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 (if available)		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS													
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
12B. Bis (2-Chloropropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
19B. Dibenz (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
20B. 1,2 - Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
21B. 1,3 - Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		

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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)												
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213						1	ug/L	
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
35B. Hexachloro-cyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

Outfall #008

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 AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					1	ug/L					
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					1	ug/L					
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					1	ug/L					
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					1	ug/L					
46B. 1,2,4-Trichlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					1	ug/L					
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

CONTINUED FROM THE PAGE 7

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#008

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 (if available)		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION - PESTICIDES (continued)												
17P. Heptachlor Epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18P. PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19P. PBC-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20P. PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21P. PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
22P. PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
23P. PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
24P. PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
25P. Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
J. RADIOACTIVITY												
(1) Alpha Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(2) Beta Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(3) Radium Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(4) Radium 226 Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	OUTFALL NUMBER #009

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. 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. LONG TERM AVRG. VALUE (1) CONCENTRATION	B. NO OF ANALYSES (2) MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input type="checkbox"/>									
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input type="checkbox"/>									
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input type="checkbox"/>									
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input type="checkbox"/>									
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input type="checkbox"/>									
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input type="checkbox"/>									
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input type="checkbox"/>									
10M. Phenols, Total	—	<input type="checkbox"/>	<input type="checkbox"/>									
DIOXIN												
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input type="checkbox"/>									

Outfall #009 requires a significant rainfall and has not flowed for several months. A sample will be collected and submitted as an addendum to the renewal, whenever runoff begins.

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II	
NPDES # (IF ASSIGNED) MO-0002402	OUTFALL NUMBER #010

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. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	B. MAXIMUM 30 DAY VALUE (1) CONCENTRATION	C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
METALS, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0				1	ug/L				
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L				
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22,000				1	ug/L				
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<50.0				1	ug/L				
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10.0				1	ug/L				
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.20				1	ug/L				
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<15.0				1	ug/L				
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<20.0				1	ug/L				
10M. Phenols, Total	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.050				1	ug/L				
DIOXIN													
2,3,7,8 – Tetra – chlorodibenzo-P-dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

DESCRIBE RESULTS

Outfall #010

CONTINUED FROM PAGE 3

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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS												
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0						1	ug/L	
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0						1	ug/L	

MO 780-1516 (02-12)

PAGE 3

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

NPDES # (IF ASSIGNED)
MO-0002402OUTFALL NUMBER
#010

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)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC:MS FRACTION - VOLATILE COMPOUNDS (continued)										
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
23V. 1,1,2,2 - Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16.3				1		
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
26V. 1,2 - Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
27V. 1,1,1 - Tri-chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
28V. 1,1,2 - Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
29V. Trichloro-ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
30V. Trichloro - fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1		
GC:MS FRACTION - ACID COMPOUNDS										
1A. 2 - Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
2A. 2,4 - Dichloro - phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
3A. 2,4 - Dimethyl - phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
4A. 4,6 - Dinitro - O-Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1		
5A. 2,4 - Dinitro - phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1		
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1		
8A. P - Chloro - M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
9A. Pentachloro - phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532				1		
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
11A. 2,4,6 - Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		

Outfall #010

CONTINUED FROM THE FRONT

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 AVRG. VALUE	B. MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS														
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.3						1	ug/L			
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
20B. 1,2 - Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			
21B. 1,3 - Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L			

CONTINUED FROM THE PAGE 5

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#010

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)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213				1		
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
35B. Hexachloro-cyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1	ug/L	

Outfall #010

CONTINUED FROM THE FRONT

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		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES		A. LONG TERM AVRG. VALUE	B. MASS
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)													
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L		
GC/MS FRACTION - PESTICIDES													
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

CONTINUED FROM THE PAGE 7

NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#010

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 AVRG. VALUE	(1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
GC/MS FRACTION – PESTICIDES (continued)																
17P. Heptachlor Epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
18P. PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
19P. PBC-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
20P. PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
21P. PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
22P. PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
23P. PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
24P. PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
25P. Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
J. RADIOACTIVITY																
(1) Alpha Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
(2) Beta Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
(3) Radium Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
(4) Radium 226 Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													

**APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES**

TABLE II

NPDES # (IF ASSIGNED) MO-0002402	OUTFALL NUMBER #011
-------------------------------------	------------------------

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. 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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
METALS AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
2M. Beryllium, Total (7440-41-7)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
3M. Magnesium Total (7439-95-4)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
4M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input type="checkbox"/>									
5M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
6M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
7M. Mercury, Total (7439-97-6)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
8M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
9M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
10M. Phenols, Total	—	<input type="checkbox"/>	<input type="checkbox"/>							1		
DIOXIN												
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

Outfall #011

CONTINUED FROM PAGE 3

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)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - VOLATILE COMPOUNDS										
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<5.0				1	ug/L	
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0				1	ug/L	

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PAGE 3

CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				D. NO. OF ANALYSES	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)		A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES				
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION		(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
26V. 1,2-Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
27V. 1,1,1-Tri-chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
28V. 1,1,2-Tri-chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
29V. Trichloro-ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
30V. Trichloro-fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<1.0								1	ug/L		
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		
2A. 2,4-Dichloro-phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		
3A. 2,4-Dimethyl-phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		
4A. 4,6-Dinitro-O-Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532								1	ug/L		
5A. 2,4-Dinitro-phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532								1	ug/L		
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532								1	ug/L		
8A. P-Chloro-M Cresol (69-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9A. Pentachloro-phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<532								1	ug/L		
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		
11A. 2,4,6-Trichloro-phenol (68-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106								1	ug/L		

Outfall #011

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. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
19B. Dibenz (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
20B. 1,2-Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	
21B. 1,3-Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106						1	ug/L	

CONTINUED FROM THE PAGE 5

NPDES # (IF ASSIGNED)
MO-0002402

3. EFFLUENT
#011

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)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<213				1		
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
35B. Hexachloro-cyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106				1		

Outfall #011

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				D. NO. OF ANALYSES	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)	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						(1) CONCENTRATION	(2) MASS
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)														
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					ug/L					
43B. N-Nitro-sodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					ug/L					
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					ug/L					
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					ug/L					
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<106					ug/L					
GC/MS FRACTION - PESTICIDES														
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

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NPDES # (IF ASSIGNED)
MO-0002402

OUTFALL NUMBER
#011

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. LONG TERM AVRG. VALUE (1)	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
GC/MS FRACTION – PESTICIDES (continued)												
17P. Heptachlor Epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18P. PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19P. PBC-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20P. PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21P. PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
22P. PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
23P. PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
24P. PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
25P. Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
J. RADIOACTIVITY												
(1) Alpha Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(2) Beta Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(3) Radium Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
(4) Radium 226 Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

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 FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

YES (LIST ALL SUCH POLLUTANTS BELOW) NO (GO TO B)

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE 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 THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

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 SECTION 4.00)

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED (list)
Pace Analytical Services, Inc.	9608 Loiret Blvd. Lenexa, KS 66219	(913) 563-1404	Metals. Volatiles, Semivolatiles, Total Phenols

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.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Steven K. Burgin Plant Manager	TELEPHONE NUMBER WITH AREA CODE (417) 358-4061
SIGNATURE 	DATE SIGNED 3-1-2013

**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE
PERMIT FORM D – PRIMARY INDUSTRIES**

All blanks must be filled in when the applications is submitted to the appropriate Regional Office (see map). The form **must be signed** as indicated.

This application is to be completed only for wastewater facilities from which there is a discharge. Include any facility that it is possible to discharge from even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, the sufficient information should be attached so that an evaluation of the discharge can be made.

1.00 Name of Facility – By what title or name is this facility known locally?

1.10 and 1.20 Self-explanatory.

1.30 GENERAL INSTRUCTIONS. For some pollutants, you may be required to mark "X" in the "Testing Required" column (column 2-A) and test (sample and analyze) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2-B or 2-C) based on your best estimate, and test for those which you believe to be present.

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff). If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out Table II if the separate sheets contain all the required information in a format which is consistent with Table II in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format). Use the following abbreviations in the columns headed "Units". (column 4)

CONCENTRATION

ppm.....parts per million
mg/l.....milligrams per liter
ppb.....parts per billion
µg/l.....micrograms per liter

MASS

lbs.....pounds
ton.....tons (English tons)
mg.....milligrams
g.....grams
kg.....kilograms
T.....tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "Number of Analyses" columns (columns 3-A and 3-D). Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" column (column 3-C), and the total number of daily values under the "Number of Analyses" columns (column 3-D). Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Value" column (column 3-B)

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes that contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLES. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. For the purposes of this application, A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutant in the intake vary physically, chemically or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

SPECIFIC INSTRUCTIONS. Table A lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes that contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2-A) and test for: A. All of the toxic metals, cyanide and total phenols; and B. The organic toxic pollutants contained in the gas chromatography/mass spectrometry (GS/MS) fractions indicated in Table A as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS fractions in Table II in 1.30. For example, the Organic Chemicals Industry has an "X" in all four

fractions; therefore, applicants in this category must test for all organic toxic pollutants in 1.30. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued.

TABLE A – TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	VOLATILE	GC/MS FRACTION		PESTICIDE
		ACID	BASE/NEUTRAL	
Adhesives and sealants	X	X	X	-
Aluminum forming	X	X	X	-
Auto and other laundries	X	X	X	X
Battery manufacturing	X	-	X	-
Coal mining	X	X	X	X
Coil coating	X	X	X	-
Copper forming	X	X	X	-
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	-
Explosives manufacturing	X	X	X	-
Foundries	X	X	X	-
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	-
Iron and steel manufacturing	X	X	X	-
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	-
Nonferrous metals manufacturing	X	X	X	X
Ore Mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	-
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials mfg.	X	X	X	X
Plastic processing	X	-	-	-
Porcelain enameling	X	-	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	-
Soap and detergent manufacturing	X	X	X	-
Stream electric power plants	X	X	X	-
Textile mills	X	X	X	X
Timber products	X	X	X	X

1 The pollutants in each fraction are listed in Item 1.30

X = Testing required

- = Testing not required

For all other cases (nonprocess wastewater outfalls and nonrequired GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2-B) or the "Believed Absent" column (column 2-C) for each pollutant, and test for those you believe present (those marked "X" in column 2-B). If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants, listed in Table II. For pollutants in intake water, see discussion above. The "Long Term Average Values" column (column 5-2) are not compulsory but should be filled out if data is available.

Use composite samples for all pollutants in this part, except use grab samples for total phenols and cyanide.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

1. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T);
2. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP);
3. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon);
4. O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel);
5. Hexachlorophene (HCP).

If you mark "Testing Required" or "Believe Present," you must perform a screening analysis for dioxins, using gas chromatography with an electron capture detector. A TCDD standard for quantification is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result.

The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents were sampled and analyzed as part of this program in the last three years, you may use this data to answer provided that the Missouri Department of Natural Resources approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

SMALL BUSINESS EXEMPTION. If you qualify as a "small business" you are exempt from the reporting requirements for the organic toxic pollutants, listed in Table II. If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR Section 795.14(c)) instead of conducting analysis for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year, in second quarter 1980 dollars, you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants.

The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intra-corporate transfers of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national produce price deflator (second quarter of 1980 = 100). This index is available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

- 2.00 A. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts. Under NPDES regulations your permit will contain limits to control all pollutants you report in answer to this question, as well as all pollutants reported in item 1.30 to 2.00 B at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to Missouri Department of Natural Resources if you, in the future, begin or expect that you will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which you did not report here. Your permit may be modified at that time if necessary to control that pollutant.
- B. For this item, consider only those variations which may result in concentrations of pollutants in effluents which may exceed two times the maximum values you reported in 1.30. These variations may be part of your routine operations or part of your regular cleaning cycles.

Under NPDES regulations your permit will contain limits to control any pollutant you report in answer to this question at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to the Missouri Department of Natural Resources if you know or have reason to believe that any activity has occurred or will occur which would make your discharge of any toxic pollutant five times the maximum values reported in 1.30 or in this item, and your permit may be modified at that time if necessary to control the pollutant.

Do not consider variations which are the result of bypasses or upsets. Increased levels of pollutants that are discharged as a result of bypasses or upsets are regulated separately under NPDES regulations.

C. Examples of the types of variations to be described here include:

Changes in raw or intermediate materials;
Changes in process equipment or materials;
Changes in product lines;
Significant chemical reactions between pollutants in waste streams; and
Significant variation in removal efficiencies of pollution control equipment.

You may indicate other types of variations as well, except those which are the result of bypasses or upsets. Missouri Department of Natural Resources may require you to further investigate or document variations you report here.

Base your prediction of expected levels of these pollutants upon your knowledge of your processes, raw materials, past and projected product ranges, etc., or upon any testing conducted upon your effluents that indicates the range of variability that can be expected in your effluent over the next five years.

EXAMPLE: Outfall 001 discharges water used to clean six 500 gallon tanks. These tanks are used for formulation of dispersions of synthetic resins in water (adhesives). Use of toxic pollutants that can be expected in the next five years is:

1. Copper acetate inhibitor, ½ lb. per tank;
2. Dibutyl phthalate, 50 lbs. per tank;
3. Toulene, 5 lbs. per tank; and
4. Antimony oxide, 1 lb. per tank.

Based on normal cleaning an average of 1 percent and a maximum of 3 percent of the contents of each tank is collected and discharged once every two weeks in the 150 gallons of water used for cleaning. Treatment (pH adjustment, flocculation, filtration) removes 85 percent of metals and 50 percent of organic compounds.

3.00 Self-explanatory.

4.00 The Federal Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Federal Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application..... shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

STATE REGULATIONS REQUIRE THE CERTIFICATION TO BE SIGNED AS FOLLOWS

1. For a corporation, by an officer of at least the level of plant manager;
2. For a partnership or sole proprietorship, by a general partner or the proprietor; or
3. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking public official.



MISSOURI DEPARTMENT OF NATURAL RESOURCES

REGIONAL AND SATELLITE OFFICES

Kansas City Area

- **Kansas City Regional Office**
500 NE Colbern Rd.
Lee's Summit, MO 64086-4710
816-622-7000
FAX: 816-622-7044
- **Northwest Missouri Satellite Office**
Northwest Missouri State University
Environmental Services Building,
800 University Dr.
Maryville, MO 64468-6015
660-562-1876 or 660-562-1877
FAX: 660-562-1878
- **Truman Lake Satellite Office**
Harry S Truman State Park
28761 State Park Road West
Warsaw, MO 65355
660-438-3039
FAX: 660-438-5271

Southwest Area

- **Southwest Regional Office**
2040 W. Woodland
Springfield, MO 65807-5912
417-891-4300
FAX: 417-891-4399
- **Lake of the Ozarks Satellite Office**
Camden County, 5570 Hwy. 54,
Osage Beach, MO 65065
2040 W. Woodland
Springfield, MO 65807-5912
573-348-2442
FAX: 573-348-2568
- **Newton County Satellite Office**
Crowder College
601 Laclede, Smith Hall, Room 201
Neosho, MO 64850
417-455-5180 or 417-455-5158
FAX: 417-455-5157

Northeast Area

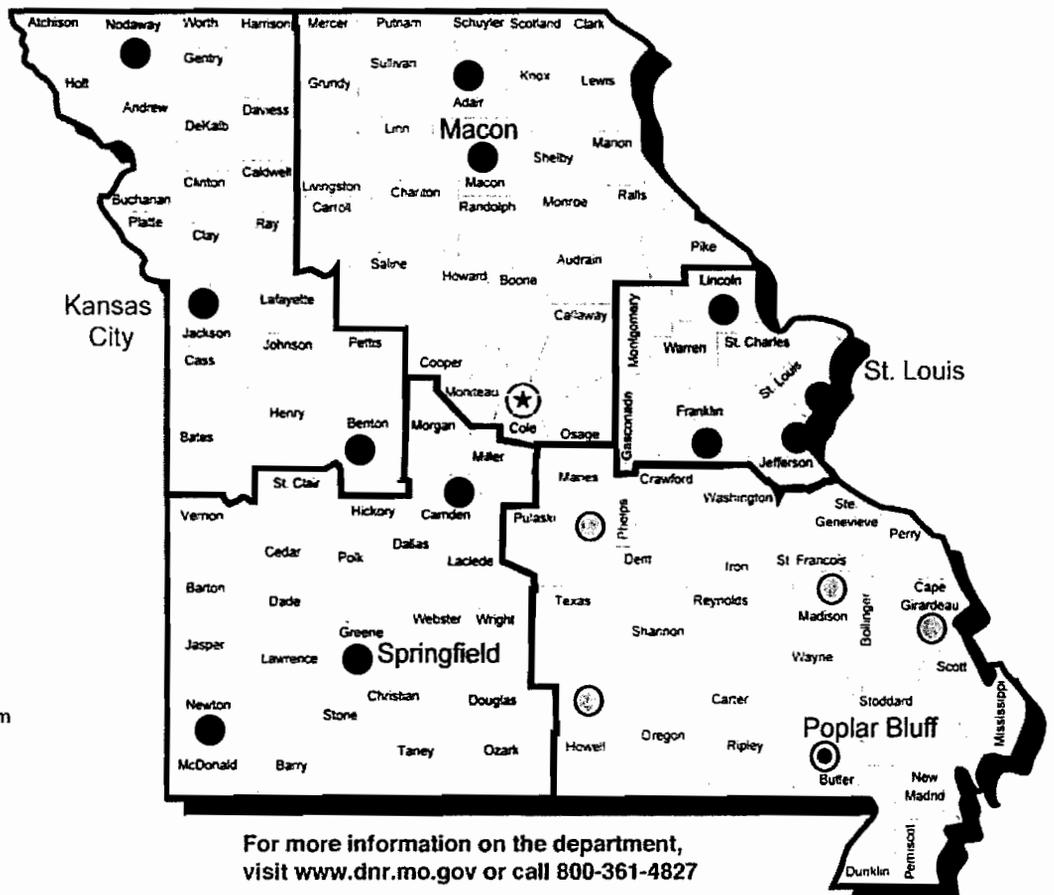
- **Northeast Regional Office**
1709 Prospect Drive
Macon, MO 63552-2602
660-385-8000
FAX: 660-385-8090
- **Kirksville Satellite Office**
Truman State University
Magruder Hall, Room 3068
100 E. Normal St.
Kirkville, MO 63501
660-785-4610
- ★ **Department Central Offices**
P.O. Box 176
Jefferson City, MO 65102-0176
573-751-3443
www.dnr.mo.gov/shared/map-jeffcity.htm

St. Louis Area

- **St. Louis Regional Office**
7545 S. Lindbergh, Ste 210
St. Louis, MO 63125
314-416-2960
FAX: 314-416-2970
- **Franklin County Satellite Office**
Meramec State Park
Hwy. 185 S.
Sullivan, MO 63080
573-860-4308
FAX: 573-468-5051
- **Jefferson County Satellite Office**
Eastern District Parks Office
Hwy. 61
Festus, MO 63028
636-931-5200
FAX: 636-931-5204
- **Lincoln County Satellite Office**
Cuivre River State Park
678 State Rt. 147
Troy, MO 63379
636-528-4779
FAX: 636-528-5817

Southeast Area

- **Southeast Regional Office**
2155 North Westwood Blvd.
Poplar Bluff, MO 63901
573-840-9750
FAX: 573-840-9754
- **Cape Girardeau County Satellite Office**
2007 Southern Expressway
Cape Girardeau, MO 63701
573-651-3008 (phone and FAX)
- **Howell County Satellite Office**
700 W. Main St.
Willow Springs, MO 65793
417-469-0025 (phone and FAX)
- **Madison County Satellite Office**
120 W. Main St.
Fredericktown, MO 63645
573-783-2385
FAX: 573-783-6294
- **Rolla Satellite Office**
111 Fairgrounds Rd.
Rolla, MO 65402
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For more information on the department,
visit www.dnr.mo.gov or call 800-361-4827