

# AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

El Paso Electric Company P.O. Box 982 El Paso, TX 79960-0982

is authorized to receiving water named Rio Grande in Segment No. 20.6.4.101 of the Rio Grande Basin, from Rio Grande Power Station located at 3501 Doniphan, in Sunland Park, Dona Ana County, New Mexico

The discharge is located at the following coordinates:

Outfall 001: Latitude: 31° 48' 13" North and Longitude 106° 32' 47" West
Outfall 002: Latitude: 31° 48' 16" North and Longitude 106° 32' 59" West
Internal Outfall 106: Latitude: 31° 48' 16" North and Longitude 106° 32' 52.5" West
Internal Outfall 107: Latitude: 31° 48' 50" North and Longitude 106° 32' 53.5" West
Internal Outfall 108: Latitude: 31° 48' 17.4" North and Longitude 106° 32' 55.4" West
Internal Outfall 109: Latitude: 31° 48' 17.9" North and Longitude 106° 32' 56.5" West

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Part I, Part II, and Part III hereof.

This permit supersedes and replaces NPDES Permit No. NM0000108 issued August 8, 2018, with an effective date of January 1, 2019, and an expiration date of December 31, 2023.

This permit, prepared by Aron K. Korir, Physical Scientist, Permitting Section (6WD-PE), shall become effective on November 1, 2024

This permit and the authorization to discharge shall expire at midnight, October 31, 2029

Issued on September 30, 2024

Troy C. Hill, P.E. Director Water Division (6WD)

#### DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3 Lowest four-day average flow rate expected to occur once every three-years

BAT Best available technology economically achievable BCT Best conventional pollutant control technology

BPT Best practicable control technology currently available

BMP Best management plan

BOD Biochemical oxygen demand (five-day unless noted otherwise)

BPJ Best professional judgment

CBOD Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)

CD Critical dilution
cfs Cubic feet per second
COD Chemical oxygen demand
COE United States Corp of Engineers

CWA Clean Water Act

DMR Discharge monitoring report ELG Effluent limitation guidelines

EPA United States Environmental Protection Agency

ESA Endangered Species Act FCB Fecal coliform bacteria

F&WS United States Fish and Wildlife Service

mg/l Milligrams per liter
ug/l Micrograms per liter
MGD Million gallons per day

NMAC New Mexico Administrative Code NMED New Mexico Environment Department

NMIP New Mexico NPDES Permit Implementation Procedures

NMWQS New Mexico State Standards for Interstate and Intrastate Surface Waters

NPDES National Pollutant Discharge Elimination System

MQL Minimum quantification level

O&G Oil and grease

POTW Publicly owned treatment works PFAS Per- and Polyfluoroalkyl Substances

RP Reasonable potential

SIC Standard industrial classification s.u. Standard units (for parameter pH) SWQB Surface Water Quality Bureau

TDS Total dissolved solids
TMDL Total maximum daily load
TRC Total residual chlorine
TSS Total suspended solids
UAA Use attainability analysis

USFWS United States Fish & Wildlife Service USGS United States Geological Service

WLA Wasteload allocation WET Whole effluent toxicity

WQCC New Mexico Water Quality Control Commission

WQMP Water Quality Management Plan WWTP Wastewater treatment plant

# PART I – REQUIREMENTS FOR NPDES PERMITS

# A. LIMITATIONS AND MONITORING REQUIREMENTS

# 1. Outfall 001

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge from Outfalls 001 (\*1). Such discharges shall be limited and monitored by the permittee as specified below:

		DISCHARGE LIMITATIONS			
EFFLUENT CHAI	RACTERISTICS	Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
рН	00400	6.6	9.0	1/Week	Grab

		DISCHARGE LIMITATIONS					
EFFLUENT CHARACTERISTICS		lbs/day, unless noted		mg/l, unless noted (*2)		MONITORING REQUIREMENTS	
PPOLLUTANT	STORET	30-DAY	DAILY	30-DAY	DAILY	MEASUREMENT	SAMPLE TYPE
	CODE	AVG	MAX	AVG	MAX	FREQUECY	
Flow	50050	Report	Report MGD	***	***	Continuous	Totalizing Meter
Total Suspended Solids	00530	N/A	N/A	30	100	1/Week	Grab
Oil and Grease	00556	N/A	N/A	15	20	1/Week	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.011 (*3)	1/Week	Instantaneous Grab
Total Copper	01042	N/A	N/A	0.0753	0.0113	1/week	Grab
Total Dissolved Solids	70300	N/A	N/A	Report	Report	1/Quarter (*4)	Grab
Dissolved Boron	00945	Report	N/A	Report	Report	1/Quarter	Grab
Chloride (*3)	00940	N/A	N/A	Report	Report	1/Quarter (*4)	Grab

WHOLE EFFLUENT TOXICITY TESTING (*5)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
(7-Day Chronic Static Renewal/NOEC)			
Ceriodaphnia dubia	Report	Quarterly	24-Hr Composite

Pimephales promelas Report (	Quarterly	24-Hr Composite
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#### Footnotes:

- \*1 Monitoring from each outfall discharging is required. If an outfall is not discharging during the month, note on the DMR for no Discharge.
- \*2 See Appendix A of Part II of the permit for the required Minimum Quantification Level.
- \*3 Regulations at 40CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation fir TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*4 Monitor of total dissolved solids (TDS) and chloride shall be year-round at once per quarter.
- \*5 WET testing is required from only one outfall for each reporting period. If both Outfalls 001 and 002 are discharging process wastewater, the testing from Outfall 002 shall be required. Only when Outfall 002 is not discharging process wastewater and outfall 001 shall WET samples be obtained from Outfall 001.

## SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfalls 001

## 2. Outfall 002

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge from Outfalls 002 (\*1). Such discharges shall be limited and monitored by the permittee as specified below:

		DISCHAR	DISCHARGE LIMITATIONS							
EFFLUENT CHARACTERISTICS Standard Units			MONITORING REQUIREMENTS							
POLLUTANT	STORET CODE	MINIMUM	[	MAXIN	MUM	Ml	EASUREME	NT FREQUENCY	SAI	MPLE TYPE
рН	00400	6.6		9.0		1/\	Week		Gra	b
		DISCHARC	ISCHARGE LIMITATIONS							
EFFLUENT CHAI	RACTERISTICS	lbs/day, unle	ess no	ted	mg/l, unle	ess 1	noted (*2)	MONITORING REQU	IRE	MENTS
POLLUTANT	STORET	30-DAY	DA	ILY	30-DAY		DAILY	MEASUREMENT		SAMPLE TYPE
	CODE	AVG	MA	X	AVG		MAX	FREQUECY		
Flow	50050	Report	Rep	ort	***		***	Continuous		Totalizing Meter
			MG	D						
Total Suspende	ed 00530	N/A	N/A		30		100	1/Week		Grab
Solids										
Oil and Grease	00556	N/A	N/A		15		20	1/Week		Grab
Total Residu	al 50060	N/A	N/A		N/A		0.011 (*3)	1/Week		Instantaneous Grab
Chlorine										
Total Dissolv	ed 70300	N/A	N/A		Report		Report	1/Quarter (*4)		Grab

Solids							
Dissolved Boron	00945	Report	N/A	Report	Report	1/Quarter	Grab
Chloride	00940	N/A	N/A	Report	Report	1/Quarter (*4)	Grab

WHOLE EFFLUENT TOXICITY	VALUE	MEASUREMENT	SAMPLE TYPE
TESTING (*5)		FREQUENCY	
(7-Day Chronic Static Renewal/NOEC)			
Ceriodaphnia dubia	Report	Quarterly	24-Hr Composite
Pimephales promelas	Report	Quarterly	24-Hr Composite

#### Footnotes:

- \*1 Monitoring from each outfall discharging is required. If an outfall is not discharging during the month, note on the DMR for no Discharge.
- \*2 See Appendix A of Part II of the permit for the required Minimum Quantification Level.
- \*3 Regulations at 40CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation fir TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*4 Monitor of total dissolved solids (TDS) and chloride shall be year-round at once per quarter.
- \*5 WET testing is required from only one outfall for each reporting period. If both Outfalls 001 and 002 are discharging process wastewater, the testing from Outfall 002 shall be required. Only when Outfall 002 is not discharging process wastewater and outfall 001 shall WET samples be obtained from Outfall 001.

# SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfalls 002

# 3. Internal Outfalls 106, 107, 108 & 109

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge metal cleaning wastewater from Internal Outfalls 106, 107, 108 and 109. Such discharges shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS							
EFFLUENT CHARACTERISTICS		Standard Units			MONITORING REQUIREMENTS		
POLLUTANT	STORET CODE	MINIMUM MAXIMUM		MEASUREMENT FREQUENCY		SAMPLE TYPE	
рН	00400	6.6	9.0		1/Week		Grab
		DISCHARGE LIMITATIONS					
EFFLUENT CHARACTERISTICS		lbs/day, unless noted mg/l, unless		ess noted (*2)	MONITORING REQU	TREMENTS	

POLLUTANT	STORET		DAILY			MEASUREMENT	SAMPLE TYPE
	CODE	AVG	MAX	AVG	MAX	FREQUECY	
Flow	50050	Report	Report MGD	***	***	1/day	Estimate (*1)
Total Suspended Solids	00530	N/A	N/A	30	100	1/day	Grab
Oil and Grease	00556	N/A	N/A	15	20	1/day	Grab
Total Copper	01042	N/A	N/A	1.0	1.0	1/day	Grab
Total Iron	01045	N/A	N/A	1.0	1.0	1/day	Grab

#### Footnotes:

- \*1. Estimate flow measurements shall not be subject to accuracy provisions established at part III.C.6. Flow may be estimate using sound analytical techniques.
- \*2. See **Appendix A of Part II** of the permit for the required Minimum Quantification Level.

## 4. Outfall 110

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge from Outfalls 001 and 002 (\*1). Such discharges shall be limited and monitored by the permittee as specified below:

		DISCHARG	E LIMITATI	ONS			
EFFLUENT CHARACTERISTICS		lbs/day, unless noted		mg/l, unless i	noted (*2)	MONITORING REQUIREMENTS	
POLLUTANT	STORET	30-DAY	DAILY	30-DAY	DAILY	MEASUREMENT	SAMPLE TYPE
	CODE	AVG	AVG MAX		MAX	FREQUECY	
Dissolved Boron	00945	3.72 (*3)	N/A	Report	Report	1/Quarter	Grab

#### Footnotes:

- \*1 Outfall 110 is a virtual outfall for reporting and limit for dissolved Boron on the combined loading of dissolved Boron from Outfalls 001 and 002. The combined loading is the sum of the loadings from Outfalls 001 and 002.
- \*2 See **Appendix A of Part II** of the permit for the required Minimum Quantification Level.
- \*3 Limit effective three (3) years plus one (1) day from the effective date of the final permit; prior to that date, the requirement is report only. See Schedule of Compliance at Part I.B.1.

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# SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfalls 001 and 002.

#### FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

There shall be no discharge of floating solids or visible foam in other than trace amounts.

There shall be no discharge of visible films of oil, globules of oil, grease or so solids in or on the water, or coatings on stream banks.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge after the final treatment unit and prior to the receiving stream. Any addition of pre-coagulant generated solids to the effluent shall be added upstream of the sample point.

#### B. SCHEDULE OF COMPLIANCE

#### I. Dissolved Boron

Conduct a survey to identify sources of dissolved boron being contributed to the collection system. The survey must include sample collection at representative locations throughout the collection systems and within the facility. Samples must be analyzed for boron using 40 CFR 136 sufficiently sensitive test methods with a ML at or below the New Mexico Water Quality Standard.

a. The Permittee shall achieve compliance with the pollutant effluent limitations specified discharges in accordance with the following Schedule:

Dissolved Boron (30-Day Average 3.72 lbs/day): Three (3) years plus one (1) day from the effective date of the final permit.

- b. The Permittee shall develop and submit a water quality sampling plan within three (3) months from the effective date of the final permit.
- c. The Permittee shall collect and evaluate water quality samples within nine (9) months from the effective date of the final permit.
- d. The Permittee shall evaluate control treatment options within nine (9) months of the effective date from effective date of the final permit.
- e. The Permittee shall select the control treatment option within twelve (12) months from the effective date of the final permit. Once a control treatment is identified, the Permittee shall complete the procurement process to select a control treatment system vendor and construction company, secure the appropriate contracts, purchase control treatment system equipment, and obtain any additional permits, as needed.
- f. The Permittee shall install and implement the control treatment system within 30 months from the effective date of the final permit. Once the control treatment system is installed and implemented, the Permittee shall undergo troubleshooting and adapt the new control treatment equipment.

- g. The Permittee shall achieve compliance with the effluent limitations within 36 months from the effective date of the final permit.
- h. The Permittee shall submit quarterly Compliance Status Reports to EPA, with a copy to NMED, that highlight actions being taken to comply with effluent limitations for dissolved boron. Reporting quarters shall end on the last day of the months March, June, September, and December. The reports should be submitted per Part III.D.4.
- i. No later than 14 calendar days following the date for compliance for pollutant effluent limitations, the Permittee shall submit a final written report that details all tasks that were done to achieve compliance. The report should be submitted per Part III.D.4.

#### C. MONITORING AND REPORTING (MINOR DISCHARGERS)

Applicable reports (DMRs, Biosolids/Sewage Sludge, Sewer Overflow/Bypass Event Pretreatment Program) shall be electronically reported to EPA at https://cdx.epa.gov/. The permittee may seek a waiver from electronic reporting or until approved for electronic reporting, the permittee shall first submit an electronic reporting waiver request to: U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-7179. If paper reporting is granted, the permittee shall submit reports on paper in accordance with signature and certification as required by Part III.D.11, and all other reports required by Part III.D. to the EPA and copies to NMED (under Part III.D.4 of the permit).

Applicable e-Reporting Program	e-Reporting Compliance Date	Reporting Frequency
DMRs	Permit effective date	Quarterly
Biosolids/Sewage Sludge Report	Permit effective date	Annually for major permit
Pretreatment Program Report	By 21 December 2025	Annually
Sewer Overflow/Bypass Event Reports and Anticipated Bypass Notices	By 21 December 2025	Quarterly

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at <a href="https://usepa.servicenowservices.com/oeca\_icis?id=netdmr\_homepage">https://usepa.servicenowservices.com/oeca\_icis?id=netdmr\_homepage</a>. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-6468. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and NMED as required (See Part III.D.IV of the permit). Reports shall be submitted quarterly.

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

- 1. Reporting periods shall end on the last day of the months March, June, September, and December.
- 2. The permittee is required to submit regular monthly reports as described above <u>postmarked no later</u> than the 28th day of the month following each reporting period.
- 3. NO DISCHARGE REPORTING: If there is no discharge at Outfall 001 during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report
- 4. If any 7-day average or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.
- 5. Any 30-day average, 7-day average, or daily maximum value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.
- 6. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five-day Biochemical Oxygen Demand (BOD<sub>5</sub>) or for five-day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), as applicable, where the permittee can demonstrate long-term correlation of the method with BOD<sub>5</sub> or CBOD<sub>5</sub> values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.

#### PART II - OTHER CONDITIONS

## A. MINIMUM QUANTIFICATION LEVEL (MQL)

EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA approved methods with a published ML at or below the effluent limit, if specified

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4, 6-Dinitro-0-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

Similar to the MQL, ML is defined as "The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). Minimum levels maybe obtained in several ways: They may be published in a method, they may be sample concentrations equivalent to the lowest acceptable calibration point used by a laboratory; or may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor." The factor and the MDL determined by a lab should be documented properly with QA/QC.

## B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6 (email accepted), Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, and concurrently to NMED within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

- Dissolved Boron
- Total Copper
- Total Iron

## C. TRANSFORMER FLUID DISCHARGE

There shall be no discharge of transformer fluid containing polychlorinated biphenyl (PCB) compounds.

#### D. LOW-VOLUME WASTE SOURCES

The term "low-volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established. Low volume waste sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included.

#### E. COOLING TOWER MAINTENANCE CHEMICALS

If cooling tower maintenance chemicals are required, the permittee must not use chemicals that contain the 126 priority pollutants (listed at 40<u>CFR</u>423, Appendix A).

The use of chemical additives which may contain any of the 126 priority pollutants or may adversely impact aquatic lives is not authorized unless approval is obtained and limitations are established on a case-

by-case basis.

## F. OPERATION OF COOLING TOWER

The facility shall operate the cooling tower properly pursuant to the manufacturer's operating manual.

## G. PERMIT MODIFICATION AND REOPENER

In accordance with 40 CFR Part 122.44(c), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, or new State of New Mexico water quality standards are established and/or remanded or/and if any changes are made to Texas surface quality standards applicable to the stream segment.

In accordance with 40 CFR Part 122.62(s)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

# H. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC STATIC RENEWAL/NOEC)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

### 1) SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S): 001 and 002

REPORTED AS FINAL OUTFALL: 001 and 002

CRITICAL DILUTION (%): 100%

EFFLUENT DILUTION SERIES (%): 32%, 42% 56%, 75%, and 100%

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA 821 R 02 013, or the most recent update thereof. This test should be terminated when 60% of the surviving females

in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA 821 R 02 013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sublethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.
- c. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to NMED, Surface Water Quality Bureau, and the EPA WET Coordinator (6WQ-PO) in writing, within 5 business days of notification of the test failure. NMED and EPA will review the test results and determine the appropriate action necessary, if any.
- d. This permit may be reopened to require WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

# 2) REQUIRED TOXICITY TESTING CONDITIONS

# a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 80%.
- ii. The mean number of *Ceriodaphnia dubia* neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods.
- iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.

- vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vii. a PMSD range of 13 47 for *Ceriodaphnia dubia* reproduction;
- viii. a PMSD range of 12 30 for Fathead minnow growth.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

## b. Statistical Interpretation

For the *Ceriodaphnia dubia* survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.

For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the reporting requirements found in Item 3 below

#### c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;
- (A)toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
- (B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
  - (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was

run concurrently with the receiving water control;

- (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
- (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
- (D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

# d. Samples and Composites

- i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above.
- ii. The permittee shall collect a second and third composite sample for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.
- iii. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

#### 3) REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this part in accordance with the Report Preparation Section of the most current publication of the method manual, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report and submit them upon the specific request of the Agency. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review.
- b. A valid test for each species must be reported during each reporting period specified in PART I of

this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. One set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. Additional results are reported under the retest codes below.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

Reporting Requirement	Parameter STORET CODE	
	Ceriodaphnia	Pimephales
	dubia	promelas
Enter a "1" if the No Observed Effect Concentration (NOEC) for	TLP3B	TLP6C
survival is less than the critical dilution, otherwise enter a "0".		
Report the NOEC value for survival	TOP3B	TOP6C
Report the LOEC value for survival	TXP3B	TXP6C
Enter a "1" if the NOEC for growth or reproduction is less than	TGP3B	TGP6C
the critical dilution, otherwise enter a "0".		
Report the NOEC value for growth or reproduction	TPP3B	TPP6C
Report the LOEC value for growth	TYP3B	TYP6C
Report the highest (critical dilution or control) Coefficient of	TQP3B	TQP6C
Variation		
(If required) Retest 1 – Enter a "1" if the NOEC for survival,	22418	22415
growth or reproduction is less than the critical dilution, otherwise enter "0".		
(If required) Retest 2- Enter a "1" if the NOEC for survival,	22419	22416
growth or reproduction is less than the critical dilution, otherwise		
enter "0".		
(If required) Retest 3- Enter a "1" if the NOEC for survival,	51444	51443
growth or reproduction is less than the critical dilution, otherwise		
enter "0".		