



**REGION 6**  
**1445 ROSS AVENUE**  
**DALLAS, TEXAS 75202-2733**

**NPDES Permit No NM0027987**

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## 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"),

City of Rio Rancho  
Utility Operation Division  
3200 Civic Center Circle NE  
Rio Rancho, NM 87144

is authorized to discharge from a facility located at 101 Industrial Park Loop, Rio Rancho, Sandoval County, New Mexico. The discharge will be to receiving water named Rio Grande River in Segment 20.6.4.106 of the Middle Rio Grande Basin, from a point located approximately

Outfall 001: Latitude 35° 15' 23" North and Longitude 106° 35' 32" West

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

This permit supersedes and replaces NPDES Permit No. NM0027987 with an effective date of November 1, 2010.

This permit shall become effective on

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

Issued on

Prepared by

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William K. Honker, P.E.  
Director  
Water Division (6WQ)

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Tung Nguyen  
Environmental Engineer  
Permitting Section (6WQ-PP)

## 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
CFR	Code of Federal Regulations
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
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
lbs	Pounds
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	Publically owned treatment works
RP	Reasonable potential
SS	Settleable solids
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
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****1A. OUTFALL 001 - FINAL Effluent Limits – 8.2 MGD Design Flow**

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 treated domestic wastewater from Outfall 001 to the Rio Grande River, in Segment 20.6.4.106 of the Middle Rio Grande Basin. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	Daily	Instantaneous Grab (*5)

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	lbs/day, unless noted		mg/l, unless noted (*1)			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG (*11)	7-DAY AVG (*12)	30-DAY AVG	7-DAY AVG	DAILY MAX		
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
BOD <sub>5</sub>	684	1026	10	15	N/A	5/Week	12-hr Composite
TSS	1026	1573	15	23	N/A	5/Week	12-hr Composite
BOD <sub>5</sub> % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation
TSS % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation
E. coli bacteria	9.8 x10 <sup>9</sup> cfu/day	N/A	47 cfu/100 ml	N/A	88 cfu/100 ml	Daily	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
DO (*6)	N/A	N/A	Report	N/A	Report	5/Week	Instantaneous Grab (*5)
PCB (*9)	N/A	N/A	N/A	N/A	Report	Once	Grab
Arsenic, total	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
Ammonia, total (as N)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
Adjusted gross alpha (*10)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
TDS	108117	N/A	1580	N/A	2372	5/Week	12-hr Composite
O&G	684	N/A	10	N/A	15	5/Week	12-hr Composite
Phosphorus, total (TP)	34	N/A	0.49	N/A	0.74	5/Week	12-hr Composite
Hexachlorobenzene (*13)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS
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WHOLE EFFLUENT TOXICITY TESTING 48-HR ACUTE NOEC FRESHWATER (*7)	30-DAY AVG	48-HR MINIMUM	MEASUREMENT FREQUENCY (*8)	SAMPLE TYPE
Daphnia pulex	Report	Report	Once/Quarter	24-hr Composite
Pimephales promelas	Report	Report	Once/Quarter	24-hr Composite

1B. OUTFALL 101 (Internal) - FINAL Effluent Limits – Seasonal Discharges from WWTP #1

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 treated domestic wastewater from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	lbs/day, unless noted		mg/l, unless noted (*1)			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX		
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
BOD <sub>5</sub>	N/A	N/A	30	45	N/A	5/Week	12-hr Composite
TSS	N/A	N/A	30	45	N/A	5/Week	12-hr Composite
BOD <sub>5</sub> % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation
TSS % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation

1C. OUTFALL 601 (Internal) - FINAL Effluent Limits – 1.2 MGD Design Flow

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 treated domestic wastewater from Outfall 601 to the Rio Grande River, in Segment 20.6.4.106 of the Middle Rio Grande Basin. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	Daily	Instantaneous Grab (*5)

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	lbs/day, unless noted		mg/l, unless noted (*1)			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX		
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
BOD <sub>5</sub>	N/A	N/A	10	15	N/A	5/Week	12-hr Composite
TSS	N/A	N/A	15	23	N/A	5/Week	12-hr Composite
BOD <sub>5</sub> % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation
TSS % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	1/Week	Calculation
E. coli bacteria	N/A	N/A	47 cfu/100 ml	N/A	88 cfu/100 ml	Daily	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
DO (*6)	N/A	N/A	Report	N/A	Report	5/Week	Instantaneous Grab (*5)
PCB (*9)	N/A	N/A	N/A	N/A	Report	Once	Grab
Arsenic, total	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
Ammonia, total (as N)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
Adjusted gross alpha (*10)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab
TDS	N/A	N/A	1580	N/A	2372	5/Week	12-hr Composite
O&G	N/A	N/A	10	N/A	15	5/Week	12-hr Composite
Phosphorus, total (TP)	N/A	N/A	0.49	N/A	0.74	5/Week	12-hr Composite
Hexachlorobenzene (*13)	N/A	N/A	N/A	N/A	Report	1/Quarter	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
	30-DAY AVG	48-HR MINIMUM	MEASUREMENT FREQUENCY (*8)	SAMPLE TYPE
WHOLE EFFLUENT TOXICITY TESTING 48-HR ACUTE NOEC FRESHWATER (*7)				
Daphnia pulex	Report	Report	Once/Quarter	24-hr Composite
Pimephales promelas	Report	Report	Once/Quarter	24-hr Composite

## Footnotes for 1A, 1B and 1C:

- \*1 See **Appendix A of Part II** of the permit for minimum quantification limits.
- \*2 Percent removal is calculated using the following equation:  

$$[\text{average monthly influent concentration (mg/l)} - \text{average monthly effluent concentration (mg/l)}] \div [\text{average monthly influent concentration (mg/l)}] \times 100.$$
- \*3 TRC shall be measured during periods when chlorine is used as either backup bacteria control or when disinfection of plant treatment equipment is required.
- \*4 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*5 Analyzed within 15 minutes of collection.
- \*6 Field kit (probe) can be used to measure.
- \*7 Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements for additional WET monitoring and reporting conditions.
- \*8 The test shall take place between November 1 and April 30, if possible. 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 failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

- \*9 PCB Testing shall be one time during the first 12-months after the permit effective date or first discharge; whichever comes first. Test shall use Method 1668A, as revised: Chlorinated Biphenyl Congeners in Water, Soil, Sediment and Tissue by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS).
- \*10 Test method ML/MDL shall be sensitive to 15 pCi/L.
- \*11 Mass loadings shall be calculated using flows from WWTPs #2 and #6 with respective concentrations (consistent units) on 30-day averages as follow:  
[(Flow, MGD x Effluent Concentration, mg/L)<sub>WWTP #2</sub> + (Flow, MGD x Effluent Concentration, mg/L)<sub>WWTP #6</sub>] x 8.345  
For E. coli: [(Flow, MGD x Effluent Concentration, cfu/100 ml)<sub>WWTP #2</sub> + (Flow, MGD x Effluent Concentration, cfu/100 ml)<sub>WWTP #6</sub>] x 3.79 x 10<sup>7</sup>
- \*12 Mass loadings shall be calculated using flows from WWTPs #2 and #6 with respective concentrations on 7-day averages as follow:  
[(Flow, MGD x Effluent Concentration, mg/L)<sub>WWTP #2</sub> + (Flow, MGD x Effluent Concentration, mg/L)<sub>WWTP #6</sub>] x 8.345
- \*13 Analysis shall be performed using EPA Method 612.

### 3. 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 solids in or on the water, or coatings on stream banks.

### 4. SAMPLE LOCATION

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream. The sample point shall be clearly marked by the facility if it is not at the final outfall location. There shall be no flow from any source into the piping system after the sample point and prior to the final outfall. The locations shall be as follow:

Outfall 001: at UV channel of the WWTP #2

Internal Outfall 101: right after Effluent Pond #1 of WWTP #1

Internal Outfall 601: right after final treatment of WWTP #6 and before coming to WWTP #2 effluent

## B. SCHEDULES OF COMPLIANCE

The permittee shall comply with the following schedule of activities for the attainment of state water quality standards-based final effluent limitations for TDS, O&G and TP:

- a. Determine exceedance cause(s);
- b. Develop control options, if needed;
- c. Evaluate and select control mechanisms;
- d. Implement corrective action; and
- e. Attain final effluent limitations no later than 6 months from the permit effective date.

The permittee shall submit quarterly progress reports, to both EPA and NMED, in accordance with the following schedule. The permittee shall also include the following in its quarterly progress reports: design completion, construction start and construction completion if any. The requirement to submit quarterly progress reports shall expire after written final report has been submitted. No later than 14-days after the date compliance with the final limits have been met, the permittee shall submit a written final report both to EPA and the State, stating that compliance has been completed. If at any time during the compliance periods the permittee determines that full compliance will not be met within the time allowed, a separate report shall be sent to both EPA and NMED stating the explanation for this delay and proposed remedial actions.

PROGRESS REPORT DATES: January 30, April 30, July 30, October 30

The permittee should note that each date applies to the prior three month period.

Progress and final reports shall be sent to the agencies (EPA, Pueblo of Sandia, NMED) mentioned in the Part I.C below.

## C. MONITORING AND REPORTING (MAJOR DISCHARGERS)

Monitoring results shall be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper

DMR Form. All DMRs shall be electronically reported effective December 21, 2016 per 40 CFR 127.16. To submit electronically, access the NetDMR website at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and contact the [R6NetDMR@epa.gov](mailto:R6NetDMR@epa.gov) in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA. No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, 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 copies to Pueblo of Sandia as required (See Part III.D.IV of the permit). Reports shall be submitted monthly.

1. Reporting periods shall end on the last day of the month.
2. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 15<sup>th</sup> day of the month following each reporting period.
3. The annual sludge report required in part IV of the permit is due on February 19 of each year and covers the previous calendar year from January 1 through December 31.
4. 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.
5. If any 7-day average or 30-day average 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.
6. Any 7-day average or 30-day average 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.
7. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for the five day Biochemical Oxygen Demand (BOD5), or for the five-day Carbonaceous Biochemical Oxygen Demand (CBOD5), as applicable, where the permittee can demonstrate long term correlation of the method with BOD5 or CBOD5 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.
8. The permittee shall submit a copy of an annual summary of the data that results from WET testing to the agencies (EPA, Pueblo of Sandia, NMED)

#### **D. OVERFLOW REPORTING**

The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary).

Overflows that endanger health or the environment shall be orally reported at (214) 665-6595, Pueblo of Sandia at (505)867-4533 and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows that endanger health or the environment shall be provided to EPA, Pueblo of Sandia and the NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

#### **E. POLLUTION PREVENTION REQUIREMENTS**

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

- a. The influent loadings, flow and design capacity;
- b. The effluent quality and plant performance;
- c. The age and expected life of the wastewater treatment facility's equipment;
- d. Bypasses and overflows of the tributary sewerage system and treatment works;
- e. New developments at the facility;
- f. Operator certification and training plans and status;
- g. The financial status of the facility;
- h. Preventative maintenance programs and equipment conditions and;
- i. An overall evaluation of conditions at the facility.

#### **F. POLLUTANTS SCAN**

The permittee shall submit 3 scans for each parameter below during the permit term. This submittal is additional pollutants requirement to Part D, Form 2A in the next permit renewal.

Pollutant	CAS Number	Pollutant	CAS Number	Pollutant	CAS Number
Aluminum, dissolved	7429-90-5	Tritium		Dioxin	
Aluminum, total recoverable	7429-90-5	Aldrin	309-00-2	alpha-Endosulfan	959-98-8
Asbestos	1332-21-4	Benzo(b)fluoranthene	205-99-2	beta-Endosulfan	33213-65-9
Barium, dissolved	7440-39-3	alpha-BHC	319-84-6	Endosulfan sulfate	1031-07-8
Boron, dissolved	7440-42-8	beta-BHC	319-85-7	Endrin	72-20-8
Cadmium, dissolved	7440-43-9	Gamma-BHC (Lindane)	58-89-9	Endrin aldehyde	7421-93-4
Chlorine residual	7782-50-5	Chlordane	57-74-9	Heptachlor	76-44-8
Chromium III, dissolved	16065-83-1	Diazinon	333-41-5	Heptachlor epoxide	1024-57-3
Chromium VI, dissolved	18540-29-9	4,4'-DDT and derivatives		2-Methyl-4,6-dinitrophenol	534-52-1
Cobalt, dissolved	7440-48-4	Dieldrin	60-57-1	Nonylphenol	84852-15-3
Manganese, dissolved	7439-96-5	Bis(chloromethyl)Ether*	542-88-1	Polychlorinated Byphenyls (PCBs)	1336-36-3
Methylmercury	22967-92-6	3-Methyl-4-Chlorophenol*	59-50-7	Toxaphene	8001-35-2
Molybdenum, dissolved	7439-98-7	Chlorpyrifos*	2921-88-2	1,2-Trans-dichloroethylene	156-60-5
Molybdenum, total recoverable	7439-98-7	Demeton*	8065-48-3	Flouride*	16984-48-8
Nitrate as N		2-(2,4,5-Trichlorophenoxy) Propionic acid (Silvex)*	93-72-1	Guthion*	86-50-0
Uranium, dissolved	7440-61-1	TTHM (Sum of total Trihalomethanes)*		Methoxychlor*	72-43-5
Vanadium, dissolved	7440-62-2	Sulfates*		Mirex*	2385-85-5
Adjusted gross alpha		Chlorides*		Nitrosamines*	
Radium 226 + Radium 228				Nitrosodibutylamine N*	924-16-3
Strontium 90				Nitrosodiethylamine N*	55-18-5
Lithium, dissolved*				N-Nitrosopyrrolidine*	930-55-2
Cyanide, weak acid dissociable*		Dissolved Hardness (as CaCO <sub>3</sub> )		Parathion*	56-38-2
Iron, dissolved*	7439-89-6			Pentachlorobenzene*	608-93-5
Malathion*	121-75-5			Sulfide-Hydrogen sulfide*	7783-06-4
				Tetrachlorobenzene-1,2,3,4*	95-94-3

\* Per Pueblo of Sandia WQS

**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 O, 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:

<b>POLLUTANT</b>	<b>CAS Number</b>	<b>STORET Code</b>
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.

**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, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, Pueblo of Sandia 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.

TDS, O&G, TRC and E. coli and TP

### **C. PERMIT MODIFICATION AND REOPENER**

In accordance with [40 CFR Part 122.44(d)], 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 Pueblo of Sandia/State water quality standards are established and/or remanded by Pueblo of Sandia/New Mexico Water Quality Control Commission, respectively.

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].

### **D. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS**

See attached Appendix B of Part II

**E. WHOLE EFFLUENT TOXICITY TESTING (48-HR ACUTE NOEC FRESHWATER)**

*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
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	50
EFFLUENT DILUTION SERIES (%):	21, 28, 38, 50 and 67
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA 821-R-02-012, or the latest 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.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA 821-R-02-012, or the latest 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 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. Acute 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.
- c. The conditions of this item are effective beginning with the effective date of the WET limit. When the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at or below the critical dilution, the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until such time compliance with the Lethal No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in PART I of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.
- d. The purpose of additional tests (also referred to as 'retests' or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates

significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

- e. This permit may be reopened to require 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:

- ✓ Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ✓ The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the *Daphnia pulex* survival test and fathead minnow survival test.
- ✓ The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal effects are exhibited for the *Daphnia pulex* survival test and/or the fathead minnow survival test.

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 *Daphnia pulex* 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 in accordance with the methods EPA 821-R-02-012 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 90% 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 an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 below.

### c. Dilution Water

- ✓ 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 where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.

- ✓ If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 2.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 synthetic dilution water control which fulfills the test acceptance requirements of Item 2.a was run concurrently with the receiving water control;
  - the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
  - the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3.a below; and
  - 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

- ✓ The permittee shall collect two flow weighted composite samples from the outfall(s) listed at Item 1.a above.
- ✓ The permittee shall collect second composite sample for use during the 24 hour renewal of each dilution concentration for both tests. 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.
- ✓ 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.
- ✓ 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 EPA 821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports 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. The permittee shall report the Whole Effluent Lethality values for the 30 Day Average Minimum and the 48 Hr. Minimum under Parameter No. 22414 on the DMR for that reporting period in accordance with PART III.D.4 of this permit.

If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the DAILY AVERAGE MINIMUM NOEC for that reporting period.

If more than one species is tested during the reporting period, the permittee shall report the lowest 30 Day Average Minimum NOEC and the lowest 48 Hr. Minimum NOEC for Whole Effluent Lethality.

A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

- c. The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period in accordance with PART III.D.4 of this permit, 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.

✓ Pimephales promelas (Fathead minnow)

- If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
- Report the NOEC value for survival, Parameter No. TOM6C.
- Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

✓ Daphnia pulex

- If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
- Report the NOEC value for survival, Parameter No. TOM3D.

- Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

#### 4. MONITORING FREQUENCY REDUCTION

- a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test species, with no lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).
- b. **CERTIFICATION** - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.
- c. **SURVIVAL FAILURES** - If any test fails the survival endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.
- d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is reissued.