



**REGION 6**  
**1201 ELM STREET, SUITE 500**  
**DALLAS, TEXAS 75270**

NPDES Permit No NM0020672

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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 Gallup  
WWTP  
P.O. Box 1270  
Gallup, NM 87305

is authorized to discharge to receiving waters named Puerco River Segment 20.6.4.99 thence to the Lower Colorado River of the Lower Colorado River Basin, from a facility located at 800 Sweetwater Place, City of Gallup, McKinley County, New Mexico.

The discharge is located on that water at the following coordinates:

Outfall 001: Latitude 35° 31' 03" North, Longitude 108° 49' 02" West,

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

This permit supersedes and replaces NPDES Permit No. NM0020672 issued September 27, 2017, with an effective date of November 1, 2017, and an expiration date of October 31, 2022.

This is a new permit, prepared by Tung Nguyen, NPDES Permitting and Wetlands Section (6WD-PE), and shall become effective on

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

Issued on

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

## 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 <sub>5</sub>	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD <sub>5</sub>	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
ML	Minimum level
MPN	Most probable number
MQL	Minimum quantification level
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
O&G	Oil and grease
PFAS	Per- and polyfluoroalkyl substances
POI	Pueblo of Isleta
POTW	Publicly 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
TRE	Toxicity Reduction Evaluation
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 plan

## PART I – REQUIREMENTS FOR NPDES PERMITS

### SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

#### 1. FINAL Effluent Limits – 3.5 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 municipal wastewater to the Puerco River Segment 20.6.4.99 NMAC thence to the Lower Colorado River from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT	DISCHARGE LIMITATIONS MINIMUM	DISCHARGE LIMITATIONS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 su	9.0 su	Daily	Instantaneous Grab (*2)

Effluent Characteristic	30-DAY AVG lbs/day, unless noted	DAILY MAX lbs/day, unless noted	7-DAY AVG lbs/day, unless noted	30-DAY AVG mg/L, unless noted	DAILY MAX mg/L, unless noted	7-DAY AVG mg/L, unless noted	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	Report MGD	N/A	N/A	N/A	Continuous	Totalizing Meter
Biological Oxygen Demand, 5- day, Influent	Report	N/A	N/A	N/A	N/A	N/A	Once/Week	6-Hour Composite
Biological Oxygen Demand, 5- day, Effluent	789	N/A	964	27	N/A	33	Once/Week	6-Hour Composite
Total Suspended Solids, Effluent	876	N/A	1314	30	N/A	45	Once/Week	6-Hour Composite
Total Suspended Solids, Influent	Report	N/A	N/A	N/A	N/A	N/A	Once/Week	6-Hour Composite
Percent Removal (minimum), BOD <sub>5</sub>	≥ 85%	N/A	N/A	N/A	N/A	N/A	Once/Week	Calculation (*9)
Percent Removal (minimum), TSS	≥ 85%	N/A	N/A	N/A	N/A	N/A	Once/Week	Calculation (*9)
E. Coli Bacteria	N/A	N/A	N/A	126 MPN/100 ml (*1)	235 MPN/100 ml (*1)	N/A	Once/Week	Grab

Effluent Characteristic	30-DAY AVG lbs/day, unless noted	DAILY MAX lbs/day, unless noted	7-DAY AVG lbs/day, unless noted	30-DAY AVG mg/L, unless noted	DAILY MAX mg/L, unless noted	7-DAY AVG mg/L, unless noted	MEASUREMENT FREQUENCY	SAMPLE TYPE
Total Residual Chlorine	N/A	N/A	N/A	N/A	11 ug/L (*2)	N/A	Daily	Instantaneous Grab (*2)
Total Ammonia (as N), interim	N/A	N/A	N/A	11.8	N/A	N/A	3/Week	Grab
Total Ammonia (as N), final	4.38	6.42	N/A	0.15	0.22	N/A	3/Week	Grab
Fluoride, interim	N/A	N/A	N/A	1750 ug/l	N/A	N/A	3/Week	Grab
Fluoride, final	44	66	N/A	1512 ug/l	2268 ug/l	N/A	3/Week	Grab
Copper, Total	0.42	0.64	N/A	14.5 ug/l	21.8 ug/l	N/A	Once/month	Grab
Chlorodibromomethane	0.012	0.012	N/A	0.4 ug/l	0.4 ug/l	N/A	3/Week	Grab
Chloroform	0.166	0.166	N/A	5.7 ug/l	5.7 ug/l	N/A	3/Week	Grab
Bis (2-Ethylhexyl) Phthalate	0.035	0.035	N/A	1.2 ug/l	1.2 ug/l	N/A	3/Week	Grab
Total Dissolved Solids, Discharge (*3)	Report	N/A	N/A	Report (*6)	Report (*6)	N/A	Once/Month	6-Hour Composite
Total Dissolved Solids, Drinking water source (*4)	Report	N/A	N/A	Report (*6)	Report (*6)	N/A	Once/Month	6-Hour Composite
Total Dissolved Solids, Net Increase (*5)	11,683	Report	N/A	400	Report	N/A	Once/Month	6-Hour Composite
Mercury (using EPA Method 1631E)	N/A	N/A	N/A	N/A	N/A	N/A	Once/Month	Grab

Effluent Characteristic	30-DAY AVG lbs/day, unless noted	DAILY MAX lbs/day, unless noted	7-DAY AVG lbs/day, unless noted	30-DAY AVG mg/L, unless noted	DAILY MAX mg/L, unless noted	7-DAY AVG mg/L, unless noted	MEASUREMENT FREQUENCY	SAMPLE TYPE
PFAS Analytes, Influent (*10)	N/A	N/A	N/A	N/A	Report ng/L (*12)	N/A	Once/Six Months	Grab
PFAS Analytes, Effluent (*10)	N/A	N/A	N/A	N/A	Report ng/L (*12)	N/A	Once/Six Months	Grab
PFAS Analytes, Sludge (*11)	N/A	N/A	N/A	N/A	Report ng/g (*12)	N/A	Once/Six Months	Grab

WHOLE EFFLUENT TOXICITY LIMITS (7-Day Chronic Static Renewal/ NOEC) *	VALUE	MEASUREMENT FREQUENCY	DMR REPORTING FREQUENCY	SAMPLE TYPE
<i>Ceriodaphnia dubia</i>	88%	Once/Quarter	Monthly	24-Hr Composite
<i>Pimephales promelas</i>	88%	Once/Quarter	Monthly	24-Hr Composite

\*Compliance with the Whole Effluent Toxicity limitation is required on the effective date of the permit. See Part II of the permit for WET testing requirements and limitation conditions. Grab samples are allowed per method, if needed.

Footnotes:

- \*1 Most Probable Number (MPN) per 100 ml. May also be reported as colony forming units (cfu) per 100 ml. The 30-day average for E. coli bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
- \*2 Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*3 Total dissolved solids measured at Outfall 001. Report the geometric mean value of the weekly values.
- \*4 Total dissolved solids flow weighted from the drinking water source(s), which in this case will be the Puerco River, upstream of the outfall. Report the geometric mean value of the weekly values.
- \*5 Net total dissolved solids calculated by taking the difference between Outfall 001 discharge and the drinking water source.
- \*6 TDS is to be reported as mg/l. TDS analysis may use either TDS or electrical conductivity where a satisfactory correlation with TDS has been established. The correlation should be based on a minimum of five different samples.
- \*7 Monitoring and reporting requirements begin on the effective date of this permit. See PART II, Whole Effluent Toxicity testing requirements for additional WET monitoring and reporting conditions.
- \*8 Monitoring frequency reduction is available. See Part II, Whole Effluent Toxicity testing requirements for specifics.
- \*9 Percent removal is calculated using the following equation:

$$\text{Percent removal} = \frac{\text{average monthly influent concentration } \left(\frac{\text{mg}}{\text{L}}\right) - \text{average monthly effluent concentration } \left(\frac{\text{mg}}{\text{L}}\right)}{\text{average monthly influent concentration } \left(\frac{\text{mg}}{\text{L}}\right)} \times 100$$

- \*10 Report in nanograms per liter (ng/L). This reporting requirement for the 40 PFAS parameters takes effect on the effective date of the authorization to discharge

- under the permit. Until there is an analytical method approved in 40 CFR Part 136 for PFAS in wastewater, monitoring shall be conducted using Method 1633. The Adsorbable Organic Fluorine CWA wastewater Method 1621 can be used in conjunction with Method 1633, if appropriate. Additionally, report, in NetDMR, the results of all 40 PFAS analytes required to be tested as part of the method as shown in Appendix B of Part II.
- \*11 Report in nanograms per gram (ng/g). This reporting requirement for the 40 PFAS parameters takes effect on the effective date of the authorization to discharge under the permit. Until there is an analytical method approved in 40 CFR Part 136 for PFAS in sludge, monitoring shall be conducted using Method 1633. The Adsorbable Organic Fluorine CWA wastewater Method 1621 can be used in conjunction with Method 1633, if appropriate. Additionally, report in NetDMR the results of all 40 PFAS analytes required to be tested as part of the method, as shown in Appendix B of Part II. Sludge sampling shall be as representative as possible based on guidance found at <https://www.epa.gov/sites/production/files/2018-11/documents/potw-sludge-sampling-guidance-document.pdf>
- \*12 PFAS Analysis data should be submitted annually to NMED (See Part III.D.IV) and NMENV-PFAS-DATA@env.nm.gov. The data submittal should include the electronic data deliverable and sampling narrative report provided by the analytical laboratory used to complete the analysis. NMED PFAS sampling standard operating procedures (SOPs) can be found at <https://www.env.nm.gov/surface-water-quality/sop/>.

## 2. 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.

## 3. 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.

## B. SCHEDULES OF COMPLIANCE

The permittee shall achieve compliance with the ammonia and fluoride effluent limitations specified for discharges in accordance with the following schedule:

<u>ACTIVITY</u>	<u>DATE OF COMPLETION</u>
Achieve Final Effluent Limitations	36 months after permit effective date
<ul style="list-style-type: none"> <li>a. The permittee shall submit a progress report to both EPA and NMED outlining the status of the activities (i.e., analyzers installation, Process Optimization Study, etc.) during the months of January, April, July, and October, of each year, until compliance is achieved as stated above.</li> <li>b. No later than 14 calendar days following the date for compliance for ammonia and fluoride effluent limitations, the permittee shall submit a written notice of compliance or noncompliance. The written notice shall report on all tasks that were done to achieve compliance.</li> <li>c. Where the project completion reported is less than would be required to assure compliance by the required date, the report of progress shall also include an explanation for this delay and proposed remedial actions.</li> </ul>	

Send progress and final reports to the following addresses:

EPA:

Enforcement and Compliance  
 Assurance Division  
 Water Enforcement Branch (6ECD-W)  
 U.S. EPA, Region 6  
 1201 Elm Street, Suite 500  
 Dallas, TX 75270

New Mexico:

New Mexico Environment Department  
 Surface Water Quality Bureau  
 Point Source Program Manager  
 P.O. Box 5469  
 1190 Saint Francis Drive  
 Santa Fe, NM 87502  
 psrs.program.manager@state.nm.gov  
 (email preferred)

C. MONITORING AND REPORTING (MAJOR DISCHARGES)

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at <https://cdx.epa.gov/>. 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) 665-7179. 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 copies to NMED (under Part III.D.4 of the permit). Other applicable reports shall be submitted as follow:

Applicable e-Reporting	e-Reporting Compliance Date	Reporting Frequency
DMRs	Permit effective date	Monthly
Sewer Overflow/Bypass Event Reports and Anticipated Bypass Notices	By December 21, 2025	Within five (5) days of the time the permittee becomes aware of
Biosolids/Sewage Sludge Reports	Permit effective date	Annually

1. Reporting periods shall end on the last day of the month.
2. The permittee is required to submit regular 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 days Biochemical Oxygen Demand (BOD<sub>5</sub>), or for the 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.

#### 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 reported via email to EPA (Part III.D.7) within 24 hours, and to 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, and the NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

#### E. POLLUTANTS SCAN

The permittee shall submit parameter below during the permit term. This scan is reported Part D, Form 2A in the next permit renewal.

<b>Pollutant</b>	<b>ug/L</b>	<b>Frequency</b>	<b>Samply Type</b>
1,2,4,5-Tetrachlorobenzene	Report	Once/Six Months	Grab
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	Report	Once/Six Months	Grab
2,4,5-Trichlorophenol	Report	Once/Six Months	Grab
2,4-Dichlorophenoxyacetic acid	Report	Once/Six Months	Grab
3-Methyl-4-chlorophenol	Report	Once/Six Months	Grab
Alachlor	Report	Once/Six Months	Grab
Aluminum	Report	Once/Six Months	Grab
Atrazine	Report	Once/Six Months	Grab

Beta Particles and photon emitters	Report	Once/Six Months	Grab
Di(2-ethylhexyl) adipate (aka Bis(2-ethylhexyl) adipate)	Report	Once/Six Months	Grab
Bis(Chloromethyl) ether	Report	Once/Six Months	Grab
Dinoseb	Report	Once/Six Months	Grab
Dinitrophenols	Report	Once/Six Months	Grab
Diquat	Report	Once/Six Months	Grab
Endothall	Report	Once/Six Months	Grab
Glyphosate	Report	Once/Six Months	Grab
Guthion (aka Azinphos methyl)	Report	Once/Six Months	Grab
Hexachlorocyclohexane (HCH)-Technical	Report	Once/Six Months	Grab
Pentachlorobenzene	Report	Once/Six Months	Grab
Nitrosamines	Report	Once/Six Months	Grab
Nitrosodibutylamine	Report	Once/Six Months	Grab
Nitrosodiethylamine	Report	Once/Six Months	Grab
N-Nitrosopyrrolidine	Report	Once/Six Months	Grab
Butyl Benzyl Phthalate	Report	Once/Six Months	Grab
2,4-Dinitrotoluene	Report	Once/Six Months	Grab
Hexachlorocyclopentadiene	Report	Once/Six Months	Grab
Hexachloroethane	Report	Once/Six Months	Grab
Hexachlorobutadiene	Report	Once/Six Months	Grab
n-Nitrosodi-n-Propylamine	Report	Once/Six Months	Grab
1,2,4-Trichlorobenzene	Report	Once/Six Months	Grab
2,4,6-Trichlorophenol	Report	Once/Six Months	Grab
2,6-Dinitrotoluene	Report	Once/Six Months	Grab
Bis(2-Ethylhexyl) phthalate	Report	Once/Six Months	Grab
Carbon Tetrachloride	Report	Once/Six Months	Grab
n-Nitrosodiphenylamine	Report	Once/Six Months	Grab
Vinyl Chloride	Report	Once/Six Months	Grab
Cadmium	Report	Once/Six Months	Grab
Acrylonitrile	Report	Once/Six Months	Grab
Acrolein	Report	Once/Six Months	Grab
4,6-Dinitro-o-Cresol (aka 2-Methyl-4,6-dinitrophenol)	Report	Once/Six Months	Grab
Pentachlorophenol	Report	Once/Six Months	Grab
Benzdine	Report	Once/Six Months	Grab
Benzo(a)anthracene	Report	Once/Six Months	Grab
Benzo(a)pyrene	Report	Once/Six Months	Grab
3,4-Benzofluoranthene/ Benzo(b)fluoranthene	Report	Once/Six Months	Grab
Benzo(k)fluoranthene	Report	Once/Six Months	Grab
Chrysene	Report	Once/Six Months	Grab
Dibenzo(a,h)anthracene	Report	Once/Six Months	Grab
Hexachlorobenzene	Report	Once/Six Months	Grab
Indeno(1,2,3-cd)pyrene	Report	Once/Six Months	Grab
Diazinon	Report	Once/Six Months	Grab
Heptachlor	Report	Once/Six Months	Grab

## 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:

POLLUTANT	CAS Number	POLLUTANT	CAS Number
Total Residual Chlorine	7782-50-5	Benzo(a)pyrene	50-32-8
Cadmium	7440-43-9	3,4-Benzofluoranthene	205-99-2
Silver	7440-22-4	Benzo(k)fluoranthene (207-08-9)	207-08-9
Thallium	7440-28-0	Indeno(1,2,3-cd)pyrene (193-39-5)	193-39-5
Cyanide	57-12-5	Dibenzo(a,h)anthracene (53-70-3)	53-70-3
Acrolein	107-02-8	Aldrin	309-00-2
Acrylonitrile	107-13-0	Chlordane	57-74-9
4, 6-Dinitro-0-Cresol	534-52-1	Dieldrin	60-57-1
Pentachlorophenol	87-86-5	Heptachlor	76-44-8
Benzidine	92-87-5	Heptachlor epoxide	1024-57-3
Chrysene	218-01-9	Toxaphene	8001-35-2
Hexachlorobenzene	118-74-1	Toxaphene (8001-35-2)	8001-35-2
N-Nitrosodimethylamine	62-75-9	Dioxin (2,3,7,8-TCDD)	1764-01-6
Benzo(a)anthracene	56-55-3		

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, NMED and the Navajo Nation within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

Copper, Chlorodibromomethane, Chloroform, Bis (2-Ethylhexyl) Phthalate, E. coli bacteria, ammonia, fluoride, TRC.

## 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 water quality standards are established and/or remanded.

In accordance with 40 CFR Part 122.62(a)(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. 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.

## E. CONTRIBUTING INDUSTRIES

1. The general prohibitions at 40 CFR Part 403.5(a) forbid the discharge of any pollutant(s) to a POTW that can cause pass through or interference.

2. The specific prohibitions at 40 CFR Part 403.5(b) are intended to “enhance control of hazardous wastes entering POTWs.” (55 FR 30082). These provisions forbid eight categories of pollutant discharges:
  - (1) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR Part 261.21.
  - (2) Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges.
  - (3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference.
  - (4) Any pollutant, including oxygen demanding pollutants (biochemical oxygen demand, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.
  - (5) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 °C (104 °F) unless the approval authority, upon request of the POTW, approves alternate temperature limits.
  - (6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
  - (7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
  - (8) Any trucked or hauled pollutants, except at discharge points designated by the POTW.”
3. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR Part 403.
4. The permittee shall provide adequate notice of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

**F. WHOLE EFFLUENT TOXICITY LIMITS (7 DAY CHRONIC 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	
REPORTED AS FINAL OUTFALL	001
CRITICAL DILUTION (%)	88%
EFFLUENT DILUTION SERIES (%)	28%, 37%, 50%, 66%, 88%
TEST SPECIES AND METHODS	Ceriodaphnia dubia / Method 1002.0 (EPA-821-R-02-013 or latest version) Pimephales promelas/ Method 1000.0 (EPA/821/R-02-013 or latest version)
SAMPLE TYPE	Defined in PART I

- b. The NOEC (No Observed Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity 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 sub-lethal 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 may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.
- d. The conditions of this item are effective beginning with the effective date of the WET limit. When the effluent fails the lethal or sub-lethal 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 compliance with the 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. The purpose of the increased frequency for WET testing after a violation 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.

## 2. REQUIRED TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

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:

Condition/Criteria	<i>Ceriodaphnia dubia</i>	<i>Pimephales promelas</i>
<b>Test Duration</b>	Until 60% or more of surviving control females have 3 broods (max 8 days)	7 days
<b># of replicates per concentration</b>	10	5
<b># of organisms per replicate</b>	1	8
<b># of organisms per concentration</b>	10	40 (minimum)
<b># of test concentrations per effluent</b>	5 and a control	5 and a control
<b>Holding time *</b>	36 hours for first use	36 hours for first use
<b>Sampling Requirement *</b>	Minimum of 3 samples	Minimum of 3 samples
<b>Test Acceptability Criteria</b>	≥80% survival of all control organisms.	≥80% survival of all control organisms.
	Average of 15 or more neonates per surviving control female.	Average dry weight per surviving organism in control must be ≥0.25mg.
	60% of surviving control females must produce 3 broods.	
<b>Coefficient of Variation **</b>	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.
<b>Percent Minimum Significant Difference (PMSD range) for Sublethal Endpoint **</b>	13 – 47	12 - 30

\* 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 and the minimum number of effluent portions 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, and must meet the holding time between collection and first use of the sample. 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.

\*\*Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%, or a PMSD value greater than the higher value on the range provided.

a. Statistical Interpretation

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 the appropriate method manual listed in Part II or the most recent update thereof.

b. Dilution Water

- 1) 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;
  - i. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
  - ii. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- 2) If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria), 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:
  - i. a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;
  - ii. the test indicating receiving water toxicity has been carried out to completion,
  - iii. the permittee includes all test results indicating receiving water toxicity with the full report and information required; and
  - iv. 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.

c. Samples and Composites

- 1) The permittee shall collect a minimum of three samples (flow-weighted composite if possible) from the outfall(s).

- 2) The permittee shall collect a second and third sample (composite samples if possible) 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 for first use of the sample. 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. A holding time up to 72 hrs is allowed upon notification to EPA of the need for additional holding time.
- 3) The permittee must collect the composite samples such that the effluent samples are representative of the discharge duration, and of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

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. One set of biomonitoring data for each species is to be recorded on the DMR for each reporting period.
- c. The permittee shall submit the results of each valid toxicity test on the DMR for that reporting period in accordance with PART I of this permit, as follows below. Although the biomonitoring frequency is once every quarter, the reporting frequency shall be monthly to accommodate for potential fluctuating frequencies due to test failures. During the period the permittee is out of compliance and testing monthly, test results for each month shall be reported separately on monthly DMRs. Use a no data indicator (NODI) code of 9 (not required), for months when biomonitoring is not required.

Reporting Requirement	Parameter STORET CODE	
		<i>Ceriodaphnia dubia</i>
Enter a "1" if the No Observed Effect Concentration (NOEC) for survival is less than	TLP3B	TLP6C

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 the critical dilution, otherwise enter a "0".	TGP3B	TGP6C
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 Variation	TQP3B	TQP6C
Report the lowest NOEC value (survival, reproduction, or growth) COMPLIANCE CODE	51710	51714

#### 4. MONITORING FREQUENCY REDUCTION

- a. Monitoring frequency reduction is not allowed for any species that has a WET limit.

#### 5. PERSISTENT TOXICITY

The requirements of this section apply when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution. If the initial WET test conducted fails, the permittee will test monthly until three consecutive tests pass.

- a. Requirement to Initiate a Toxicity Reduction Evaluation  
Persistent toxicity is demonstrated after any two consecutive monthly failures for any species tested. If persistent toxicity is demonstrated, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part 6 of this section. The permittee shall notify EPA in writing within 5 days of notification of the failure, and the TRE initiation date will be the test completion date of the second failed retest that triggered the TRE requirements.

#### 6. TOXICITY REDUCTION EVALUATION (TRE)

- a. Within ninety (90) days of confirming lethality and/or sub-lethality in the monthly tests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE to the EPA R6 WET Coordinator. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE is an investigation intended to determine those actions necessary to achieve compliance with water quality based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the

effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

- 1) **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, a Toxicity Identification Evaluation (TIE) and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Identification Evaluations to characterize the nature of the constituents causing toxicity, the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA 600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate.
  - 2) **Sampling Plan** (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified; Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where toxicity was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;
  - 3) **Quality Assurance Plan** (e.g., QA/QC implementation, corrective actions, etc.); and
  - 4) **Project Organization** (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal.
- c. The permittee shall submit a quarterly TRE Activities Report to the EPA WET Coordinator (6WQ-PO) in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

- 1) Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
  - 2) Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
  - 3) Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution. A copy of the TRE Activities Report shall also be submitted to the state agency.
  - 4) Any results and interpretation of any chemical specific analysis, and for any characterization, identification, and confirmation tests performed during the quarter.
  - 5) Any changes to the initial TRE plan and schedule that are believed necessary.
- d. Finalizing a TRE
- The permittee shall submit (to EPA 6WQ-PO) a final report on TRE activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the final report on TRE Activities shall also be submitted to the state agency.
- A TRE may be stopped if there is no toxicity at the critical dilution for a period of 12 consecutive months (with at least monthly testing) following confirmation of toxicity in the retests. The permittee would submit a final report to EPA at that time.
- e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants.