



NPDES Permit No NM0020168

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 Aztec
201 W. Chaco St.
Aztec, NM 87410

is authorized to discharge from a facility located at 900 S. Oliver Street, Aztec, San Juan County, New Mexico, to Animas River in Segment 20.6.4.403 of the San Juan River Basin from a point located approximately:

Outfall 001: Latitude 36° 49' 07" N and Longitude 108° 01' 24" W

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, prepared by Quang Nguyen, Environmental Engineer, NPDES Permitting Section, supersedes and replaces NPDES Permit No. NM0020168 with an effective date of May 1, 2021.

This permit 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

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
ML	Minimum level
MQL	Minimum quantification level
O&G	Oil and grease
PFAS	Per- and Polyfluoroalkyl Substances
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
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

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. OUTFALL 001 - 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 001 to Animas River. Such discharges shall be limited and monitored by the permittee and reported as specified below:

POLLUTANT	DISCHARGE LIMITATIONS MINIMUM	DISCHARGE LIMITATIONS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	Daily	Instantaneous Grab

POLLUTANT	30-DAY AVG, lbs/day, unless noted	7-DAY AVG lbs/day, unless noted	30-DAY AVG mg/l, unless noted (*1)	7-DAY AVG mg/l, unless noted (*1)	DAILY MAX mg/l, unless noted (*1)	MEASUREMEN T FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
BOD ₅ , Effluent	300	450	30	45	N/A	1/week (*11)	6-hr Composite
BOD ₅ , Influent (*12)	***	***	***	Report (mg/L)	***	1/week (*11)	6-hr Composite
TSS, Effluent	300	450	30	45	N/A	1/week (*11)	6-hr Composite
TSS, Influent (*12)	***	***	***	Report (mg/L)	***	1/week (*11)	6-hr Composite
BOD ₅ % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	Monthly	Calculation
TSS % removal, minimum	≥85 (*2)	N/A	N/A	N/A	N/A	Monthly	Calculation
E. coli bacteria	4.8 x 10 ⁹ cfu (or MPN)/day	N/A	126 cfu (or MPN)/100 ml	N/A	410 cfu (or MPN)/100 ml	1/week	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
Total Phosphorus	9.32	N/A	1.12	N/A	Report	2/month	6-hr Composite
Total Nitrogen (*6)	25.3	N/A	3.04	N/A	Report	2/month	6-hr Composite
TDS, net increase (*7)	N/A	N/A	N/A	N/A	400	1/month	6-hr Composite

WHOLE EFFLUENT TOXICITY TESTING 48-HR ACUTE NOEC FRESHWATER (*8)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Quarterly (*9)	6-hr Composite
Pimephales promelas	Report	Quarterly (*10)	6-hr Composite

Footnotes:

*1 See **Appendix A of Part II** of the permit for minimum quantification limits.

*2 Percent removal is calculated using the following equation:

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

*3 This facility uses a UV system to control bacteria. TRC shall be measured during periods when chlorine is used as either backup bacteria control, when disinfection of plant treatment equipment is required or when used for filamentous algae control. For permit reporting, when chlorine is not used in the treatment system the permittee may report N/A on the DMR.

*4 The effluent limitation for Total Residual Chlorine (TRC) is the instantaneous maximum and cannot be averaged for reporting purposes. The Minimum Quantification Level for TRC is 33ug/L. Values less than the MQL (33 ug/L) may be reported as zero. See Appendix A of Part II.

*5 Analyzed within 15 minutes of collection.

*6 Total Nitrogen is defined as the sum of Total Kjeldahl Nitrogen (as N) and Nitrate-Nitrite (as N).

*7 Net increase = effluent TDS concentration – intake drinking water supply TDS concentration, (mg/l)

*8 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.

*9 If all pass in the 1st year, frequency is reduced to once/6 months for 2nd – 5th year. If any test fails, frequency is returned to once/quarter for remainder of permit term. Once/quarter is reverted on last day of permit. EPA outlines steps for retesting/TRE since the facility has quarterly testing.

*10 If all pass in the 1st year, frequency is reduced to once/year for 2nd – 5th year. If any test fails, frequency is returned to once/quarter for remainder of permit term. Once/quarter is reverted on last day of permit. EPA outlines steps for retesting/TRE since the facility has quarterly testing.

*11 Sampling must be conducted at least four days apart. Effluent and Influent monitoring shall be conducted simultaneously.

*12 The facility will be required to monitor influent of BOD₅ and TSS on a once per week frequency for use to determine the removal percentage. The facility shall diligently maintain a log. The influent data is not required to be reported on NetDMR but must be kept at the facility and made available to EPA or its agents upon request.

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

None

C. MONITORING AND REPORTING (MAJOR DISCHARGERS)

The permittee shall send a copy of discharge monitoring reports (DMRs), all other reports required in the permit, as well as a copy of application for permit renewal to New Mexico Environment Department at the mailing address listed in Part III of the permit.

1. The permittee shall effectively monitor the operations and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.
2. Applicable reports (DMRs, Biosolids/Sewage Sludge, Sewer Overflow/Bypass Event Pretreatment Program) shall be electronically reported to EPA, per 40 CFR 127.16, 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, NetDMR Coordinator, (214) 665-6458. 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	Monthly
Biosolids/Sewage Sludge Report	Permit effective date	Annually for major permits
Pretreatment Program Reports	By 21 December 2025	Annually
Sewer Overflow/Bypass Event Reports and Anticipated Bypass Notices	By 21 December 2025	Monthly

3. If any 30-day average, monthly average, 7-day average, weekly 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.

4. Any 30-day average, monthly average, 7-day average, weekly 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.
5. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five-day Biochemical Oxygen Demand (BOD₅) or for 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.
6. 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.

D. OVERFLOW REPORTING

The permittee shall report all overflow/bypass via the website with the compliance date mentioned above. If the reports on paper are submitted before the compliance date, 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).

Sewer overflow and bypass events that endanger health or the environment shall be reported via email to R6_NPDES_Reporting@epa.gov, and NMED Surface Water Quality Bureau at (505) 827-0187 or swq.reporting@env.nm.gov (email preferred) as soon as possible, but within 24 hours from the time the permittee becomes aware of the sewer overflow or bypass event. The permittee must also use NeT-SewerOverflow, which is available at: <https://cdx.epa.gov/>, to submit a Sewer Overflow/Bypass Event Report to EPA and NMED within 5 days of the time the permittee becomes aware of the sewer overflow or bypass event that endangers health or the environment. For all other sewer overflow or bypass events that do not endanger health or the environment, the permittee must file a Sewer Overflow/Bypass Event Report to EPA, using NeT-SewerOverflow, on or before the due date of the next DMR submission.

The permittee shall coordinate with downstream users and stakeholders to develop a communication procedure/plan to notify the public of any sewer overflows and bypass events. Permittees shall provide a copy of the developed communication procedure/plan to NMED.

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 at least 3 scans for each parameter below. This submittal is additional pollutants requirement to Table C, Form 2A for the next permit renewal.

The following pollutants, per 20.6.4.900.J(2) NMAC, are not listed in Table C of Form 2A:

Pollutants	CAS Number	Pollutant	CAS Number	Pollutant	CAS Number
Aluminum, dissolved	7429-90-5	Uranium, dissolved	7440-61-1	Dioxin	
Aluminum, total recoverable	7429-90-5	Vanadium, dissolved	7440-62-2	alpha-Endosulfan	959-98-8
		Adjusted gross alpha		beta-Endosulfan	33213-65-9
		Radium 226 + Radium		Endosulfan sulfate	1031-07-8
Boron, dissolved	7440-42-8	Strontium 90		Endrin	72-20-8
Chromium III, dissolved	16065-83-1	Tritium		Endrin aldehyde	7421-93-4
Chromium VI, dissolved	18540-29-9	Aldrin	309-00-2	Heptachlor	76-44-8
Cobalt, dissolved	7440-48-4	alpha-BHC	319-84-6	Heptachlor epoxide	1024-57-3
Manganese, dissolved	7439-96-5	beta-BHC	319-85-7	Nonylphenol	84852-15-3
Methylmercury	22967-92-6	Gamma-BHC (Lindane)	58-89-9	Polychlorinated Biphenyls (PCBs)*	1336-36-3
Molybdenum, dissolved	7439-98-7	Chlordane	57-74-9	Toxaphene	8001-35-2
Molybdenum, total	7439-98-7	Diazinon	333-41-5	Dieldrin	60-57-1
		4,4'-DDT and derivatives		Fluoranthene	

* Upon EPA acceptance, previous test result can be resubmitted if there are no changes in treatment process, significant industrial user, etc.

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 (email accepted), Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas and concurrently to NMED Surface Water Quality Bureau at (505) 827-0187 or swq.reporting@env.nm.gov (email preferred) within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

E. coli
TRC

C. 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 water quality standards are established and/or remanded by New Mexico Water Quality Control Commission.

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. CONTRIBUTING INDUSTRIES

1. The following pollutants may not be introduced into the treatment facility:
 - Pollutants which create a fire or explosion hazard in the publicly owned treatment works (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 261.21;
 - Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
 - Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
 - Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
 - 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 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
 - Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

- 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; and
 - Any trucked or hauled pollutants, except at discharge points designated by the POTW.
2. 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.
 3. The permittee shall provide adequate notice of the following:
 - 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
 - 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.

The POTW shall implement and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's NPDES permit or sludge use or disposal practices.

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

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 (%)	12%
EFFLUENT DILUTION SERIES (%)	5%, 7%, 9%, 12%, 16%
TEST SPECIES/METHODS	<i>Daphnia pulex</i> (EPA-821-R-02-012 or latest version) <i>Pimephales promelas</i> (EPA/821/R-02-013 or latest version)
SAMPLE TYPE	Defined in PART I

- a. 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. 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.
- b. 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 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>Daphnia pulex</i>	<i>Pimephales promelas</i>
# of replicates per concentration	4	2
# of organisms per replicate	5	10
# of organisms per concentration	20	20
# of test concentrations per effluent	5 and a control	5 and a control
Holding time *	36 hours for first use	36 hours for first use
Test Acceptability Criteria	≥90% survival of all control organisms.	≥90% survival of all control organisms.
Coefficient of Variation **	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.

* 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 two samples (flow-weighted composite if possible) from the outfall(s).
 - 2) The permittee shall collect a second 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 (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov) 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 or NMED. 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 to EPA (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov).

- 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	
	<i>Daphnia pulex</i>	<i>Pimephales promelas</i>
Enter a "1" if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, otherwise enter a "0".	TEM3D	TEM6C
Report the NOEC value for survival	TOM3D	TOM6C
Report the highest (critical dilution or control) Coefficient of Variation	TQM3D	TQM6C
(If required) Retest 1 – Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	22418	22415
(If required) Retest 2- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	22419	22416
(If required) Retest 3- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	51444	51443

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 a 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 vertebrate species) and not less than twice per year for the more sensitive test species (usually the invertebrate species).
- b. Certification - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria above. In addition, the permittee must provide a list with each test performed including test initiation date, species, and NOECs. 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 compliance section to update the permit reporting requirements.
- c. Failures - If any test demonstrates lethal effects at or below the critical dilution at any time during the life of this permit, three monthly retests are required. If a frequency reduction had

been granted, the monitoring frequency for the affected test species reverts to once per quarter until the permit is re-issued.

- 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 re-issued.

5. PERSISTENT TOXICITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant toxic effects, are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent). If the initial WET test conducted fails, the permittee will conduct three retests. The purpose of retests 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. If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

a. Retest

The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The three additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with the reporting requirements previously outlined and available upon request from the Agency or NMED.

b. Requirement to Initiate a Toxicity Reduction Evaluation

If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part 6 of this section. The permittee shall notify EPA (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov) in writing within 5 days of notification of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent effects at or below the critical dilution, or for failure to perform the required retests.

6. TOXICITY REDUCTION EVALUATION (TRE)

A TRE is triggered following two test failures (a failure followed by one retest failure).

- a. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE to the EPA (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov). 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 EPA (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov) 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 (WET Coordinator at mail code WDPN) and NMED (swq.reporting@env.nm.gov) 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. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

F. ADDITIONAL POLLUTANTS SCAN

The permittee shall submit test results of PFAS (one sample) during the permit term to EPA, and NMED (via email) as follows:

Parameter	Test Result	Measurement Frequency ⁵	Sample Type
PFAS Analytes ¹ , effluent	Report ng/L ²	Once/6 Months	Grab
PFAS Analytes ¹ , influent	Report ng/L ²	Once/6 Months	Grab
PFAS Analytes ¹ , sewage sludge	Report ng/g ³	Once/6 Months	Grab ⁴

Footnote:

1. Listed in attached Appendix B of Part II.
2. 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.

3. 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.
4. 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-guidancedocument.pdf>.
5. PFAS Analysis data should be submitted to NMED at SWQ.Reporting@env.nm.gov (See Part III.D.4) 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/>.