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

NPDES Permit No. NM0022268

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"),

The City of Artesia New Mexico
Artesia WWTP
Post Office Box 1310
Artesia, New Mexico 88211

is authorized to discharge from a facility located at 1702 N. Haldeman Road, Eddy County, New Mexico. The discharge will be to receiving water named Pecos River (Segment 20.6.4.231 NMAC of the Pecos River Basin), from a point located approximately:

Outfall 001: Outfall 001: Latitude N 32° 51' 20", Longitude W 104° 21' 30"

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 hereof.

This permit supersedes and replaces NPDES Permit No. NM0022268 with an effective date of January 1, 2020, and an expiration date of December 31, 2024.

This permit shall become effective on September 1, 2025

This permit and the authorization to discharge shall expire at midnight, August 31, 2030

Issued on July 10, 2025

TROY HILL Digitally signed by TROY HILL Date: 2025.07.11 05:45:48 -05'00'

Troy C. Hill, P.E.
Director
Region 6 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
MDL	Method Detection Limit
MGD	Million gallons per day
ML	Minimum Level
MPN	Most Probable Number
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
POI	Pueblo of Isleta
POTW	Publicly owned treatment works
PFAS	Per- and Polyfluoroalkyl Substances
RP	Reasonable potential
SS	Settleable solids
SSM	Sufficiently Sensitive Analytical Method
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

1. OUTFALL 001 - FINAL Effluent Limits – 2.6 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 Pecos River (Segment 20.6.4.231 NMAC of the Pecos River Basin). 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 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)	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (*9)	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
BOD_5, Influent	N/A	N/A	Report	N/A	N/A	Once/Month	Grab
BOD_5	325	488	30	45	N/A	Weekly	6-hr Composite
TSS, Influent	N/A	N/A	Report	N/A	N/A	Once/Month	Grab
TSS	325	488	30	45	N/A	Weekly	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	N/A	N/A	126 cfu/100 ml (mpn/100 ml) (*7)	N/A	410 cfu/100 ml (mpn/100 ml)	Weekly	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
DO	N/A	N/A	≥ 5	N/A	≥ 5	Weekly	Instantaneous Grab
Total Phosphorus	N/A	N/A	N/A	N/A	Report	Quarterly	6-hr Composite
Total Nitrogen (*6)	N/A	N/A	N/A	N/A	Report	Quarterly	6-hr Composite
Chlordane	N/A	N/A	N/A	N/A	Report	Yearly	6-hr Composite
Toxaphene	N/A	N/A	N/A	N/A	Report	Yearly	6-hr Composite

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)	MEASUREMENT FREQUENCY	SAMPLE TYPE
Nonylphenol	N/A	N/A	N/A	N/A	Report	Monthly	Grab

WHOLE EFFLUENT TOXICITY TESTING 7-DAY CHRONIC NOEC FRESHWATER (*8)	VALUE	MEASUREMENT FREQUENCY (*9)	SAMPLE TYPE
Ceriodaphnia dubia	Report	Quarterly	24-hr Composite
Pimephales promelas	Report	Quarterly	24-hr Composite

EFFLUENT CHARACTERISTICS	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	Quarterly	Grab
PFAS Analytes, Effluent (*10)	N/A	N/A	N/A	N/A	Report ng/L (*12)	N/A	Quarterly	Grab
PFAS Analytes, Sludge (*11)	N/A	N/A	N/A	N/A	Report ng/g (*12)	N/A	Quarterly	Grab

Footnotes:

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

*2. Percent removal is calculated using the following equation:

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

*3. Daily when chlorine is used as either backup bacteria control or disinfection of plant treatment equipment.

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

*7. Geometric mean of the daily values.

*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. Loading limits are based on 1.3 MGD. EPA encourages the permittee to only use one treatment train at a time, unless needed for emergency purposes.

*10. If the four (4) quarterly tests occurring during the first full year of testing pass, then the monitoring frequency for Ceriodaphnia dubia may be reduced to once/six-months and Pimephales promelas may be reduced to once/year. See Part II of the Permit for monitoring frequency reduction. If eligible for frequency reduction after the first year, the permittee must request EPA before proceeding. If any test failures occur subsequently to monitoring frequency

reduction, the frequency must return to once/quarter for the remainder of the permit term. The frequency must revert to once/quarter on the last day of permit term.

*11. 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.

*12. Sludge sampling shall be Reported 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 1621can 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 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.

*13. PFAS samples must be collected and analyzed in three separate calendar years. 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

None

C. MONITORING AND E-REPORTING (MAJOR DISCHARGERS)

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

Applicable e-Reporting Program	e-Reporting Compliance Date	Reporting Frequency
DMRs	Permit effective date	Monthly
Biosolids/Sewage Sludge Report	Permit effective date	Annually
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 (BOD_5) or for five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), as applicable, where the permittee can demonstrate long term correlation of the method with BOD_5 or $CBOD_5$ 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 overflow/bypass via the website with the compliance date mentioned above. If the reports on paper are submitted before the compliance dated, 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.

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 following pollutants shall be tested along with those in Table C of Form 2A:

Pollutants	CAS Number	Pollutant	CAS Number	Pollutant	CAS Number
Aluminum, dissolved	7429-90-	Vanadium, dissolved	7440-62-2	Dioxin*	
Aluminum, total recoverable**	7429-90-5	Adjusted gross alpha		alpha-Endosulfan	959-98-8
Boron, dissolved	7440-42-	Radium 226 +		beta-Endosulfan	33213-65-
Cadmium, dissolved	7440-43-			Endosulfan sulfate*	1031-07-8
Chromium III, dissolved	16065-			Endrin	72-20-8
Chromium VI, dissolved	18540-	Aldrin	309-00-2	Endrin aldehyde*	7421-93-4
Cobalt, dissolved	7440-48-	alpha-BHC	319-84-6	Heptachlor	76-44-8
Manganese, dissolved	7439-96-	beta-BHC	319-85-7	Heptachlor epoxide	1024-57-3
Methylmercury	22967-	Gamma-BHC	58-89-9	Nonylphenol	84852-15-
Molybdenum, dissolved	7439-98-	Chlordane	57-74-9	Polychlorinated	1336-36-3
Molybdenum, total recoverable**	7439-98-7	Diazinon	333-41-5	Toxaphene	8001-35-2
		4,4'-DDT and		Dieldrin	60-57-1

* Shall be tested unless the permittee certifies there is no change in the treatment process, including feedstock chemicals.
** Sample is filtered (10 um) to minimize mineral phases per 20.6.4.900.I NMAC.

PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL)

EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the

measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

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

POLLUTANT	CAS Number	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, and concurrently to New Mexico Environment Department at SWQ.Reporting@env.nm.gov as soon as possible, but within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

- E.Coli Bacteria
- 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 the 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 AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams 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;

   b. 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;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. 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;

   e. 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;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

   g. 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

   h. 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:

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.

c. 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.

4. The POTW shall continue to develop 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 (7-DAY CHRONIC 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 AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	56%
EFFLUENT DILUTION SERIES (%):	24%, 32% 42%, 56%, and 75%
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA 821 R 02 013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

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

b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality or sublethality 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 does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to NMED, Surface Water Quality Bureau, and the EPA WET Coordinator (6WQ-PO) in writing, within 5 business days of notification of the test failure. NMED and EPA will review the test results and determine the appropriate action necessary, if any

d. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

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

i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 80%.

ii. The mean number of *Ceriodaphnia dubia* neonates produced per surviving female in the control (0% effluent) must be 15 or more.

iii. 60% of the surviving control females must produce three broods.

iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.

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

vii. A PMSD range of 13 - 47 for *Ceriodaphnia dubia* reproduction;

viii. A PMSD range of 12 - 30 for Fathead minnow growth.

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

b. Statistical Interpretation

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

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

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

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

a) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

b) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

a) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

b) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);

c) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and

d) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above.

ii. The permittee shall collect a second and third composite sample for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

iii. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

3. REPORTING

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

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. One set of biomonitoring data for each species is to be

recorded on the DMR for each reporting period. Additional results are reported under the retest codes below.

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

Reporting Requirement	Parameter STORET CODE	
	Ceriodaphnia dubia	Pimephales promelas
Enter a “1” if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, otherwise enter a "0".	TLP3B	TLP6C
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
(If required) Retest 1 – Enter a “1” if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter “0”.	22418	22415
(If required) Retest 2- Enter a “1” if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter “0”.	22419	22416
(If required) Retest 3- Enter a “1” if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter “0”.	51444	51443