



NPDES Permit No NM0020010

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"),

Village of Hatch
P.O. Box 220
Hatch, NM 87937

is authorized to discharge from a facility located at 1101 E. Herrera Road, Dona Ana County, NM. The discharge will be to receiving waters named Hatch Drain, an unclassified intermittent stream in Segment 20.6.4.98, thence Rio Grande River in Segment 20.6.4.101 of the New Mexico Administrative Code (NMAC) of the Rio Grande Basin,

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

Outfall 001: Latitude 32° 40' 05" North and Longitude 107° 08' 17" 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 is prepared by Jim Afghani, Environmental Engineer, Permitting Section (6WQ-PE).

This is a reissuance of the current NPDES permit and shall become effective on

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

Issued on

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

DOCUMENT ABBREVIATIONS

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

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
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 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
TRE	Toxicity Reduction Evaluation
TSS	Total suspended solids
UAA	Use attainability analysis
USGS	United States Geological Service
WLA	Waste load allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

In this document, references to State WQS and/or rules shall collectively mean the state of New Mexico.

PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. FINAL Effluent Limitations – 0.3 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 Hatch Drain, in Segment Number 20.6.4.98 NMAC, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT	MINIMUM	MAXIMUM	FREQUENCY	TYPE
pH *1	6.6 Standard Units	9.0 Standard Units	5/week	Instantaneous Grab

POLLUTANT	30-DAY AVG lbs/day, unless noted	7-DAY AVG lbs/day, unless noted	30-DAY AVG mg/L, unless noted	7-DAY AVG mg/L, unless noted	DAILY MAX mg/L, unless noted	FREQUENCY	TYPE
Flow	Report MGD	Report MGD	***	***	Report MGD	Daily	Totalized
Biochemical Oxygen Demand, 5-day *2	75	113	30	45	N/A	2/Month	Grab
Biochemical Oxygen Demand, influent	N/A	N/A	Report	N/A	N/A	1/Month	Grab
BOD% Removal *3	≥85%	N/A	N/A	N/A	N/A	1/Month	Calculation
Total Suspended Solids *2	75	113	30	45	N/A	2/Month	Grab
Total Suspended Solids, influent	N/A	N/A	Report	N/A	N/A	1/Month	Grab
TSS% Removal * 3	≥85%	N/A	N/A	N/A	N/A	1/Month	Calculation
E. coli Bacteria *2,4,5	1.43 x 10 ⁹	Report	126	N/A	410	2/Month	Grab
Total Residual Chlorine *6	N/A	N/A	N/A	N/A	11 µg/l	5/week	Instantaneous Grab
PFAS Analytes, (Influent) *7, 10	N/A	N/A	N/A	N/A	Report ng/L	3/Term	Grab
PFAS Analytes, (Effluent) *7,10	N/A	N/A	N/A	N/A	Report ng/L	3/Term	Grab
PFAS Analytes, (Biosolids) *8,9,10	N/A	N/A	N/A	N/A	Report ng/g	3/Term	Grab

WHOLE EFFLUENT TOXICITY TESTING (7-Day Chronic Static Renewal/ NOEC) *11	VALUE	FREQUENCY	TYPE
<i>Ceriodaphnia dubia</i>	Report	Once/5 years	24-Hr Composite
<i>Pimephales promelas</i>	Report	Once/5 years	24-Hr Composite

Footnotes:

- *1. Analyzed within 15 minutes of collection.
- *2. BOD₅, TSS, and E. coli shall be monitored by grab sample twice (2 times) per month with samples taken at least ten (10) days apart.
- *3 . Percent removal = $\{(\text{Avg. Influent concentration} - \text{Avg. effluent concentration}) / \text{Avg. Influent concentration}\} \times 100\}$
- *4 . Colony forming units (cfu) per 100 ml or MPN. The geometric mean of *E. coli* bacteria shall be used for reporting the 30-day average values. The geometric mean is calculated by multiplying all the daily values for the reporting period together and then taking that product to the power $1/N$ (where N is the number of samples). Examples = $(A \times B \times C \times D \times E)^{1/5}$, or $(A \times B)^{1/2}$.
- *5 . Colony forming units (cfu) per day. Loading is calculated by multiplying the bacteria concentration (in cfu/100 mL) * flow (in MGD) 3.79×10^7 [a conversion factor]
- *6. After dechlorination and prior to final disposal, TRC shall be monitored by instantaneous grab sample once per day only when using chlorine either for bacteria control in the effluent or for cleaning and/or filamentous bacteria control. For the purposed of TRC reporting, instantaneous is defined in 40 CFR Part 136 as being measured within fifteen (15) minutes after sampling. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- *7 Report in nanograms per liter (ng/L). This reporting requirement for the 40 PFAS parameters takes effect the first full calendar quarter after 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. Additionally, report in Net-DMR the results of all 40 PFAS analytes required to be tested as part of the method as shown in Appendix B of Part II.
- *8 Report in nanograms per gram (ng/g). This reporting requirement for the 40 PFAS parameters takes effect the first full calendar quarter after 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. Additionally, report in Net-DMR the results of all 40 PFAS analytes required to be tested as part of the method, as shown in Appendix B of Part II.
- *9 Biosolids 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>
- *10 PFAS Analysis data should be submitted annually to NMED at SWQ.Reporting@env.nm.gov 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.
- *11. Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements and additional WET monitoring and reporting conditions. Grab samples are allowed per method, if needed. The test shall be performed no later than 12 months from the permit effective date.

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. In addition, samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit before the receiving stream. The facility shall mark the sample point 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 before the final outfall.

3. SAMPLE LOCATION

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit before the receiving stream. The facility shall mark the sample point 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 before the final outfall.

B. SCHEDULE OF COMPLIANCE: None

C. MONITORING AND REPORTING (MINOR DISCHARGERS)

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

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

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

- Reporting periods shall end on the last day of the months March, June, September, and December.
- The permittee is required to submit regular monthly reports as described above postmarked no later than the 28th day of the month following each reporting period.
- 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 DMR.
- If any 7-day average or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.

5. Any 30-day average, 7-day average, or daily maximum value reported in the required DMR which is more than the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.

6. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five-day Biochemical Oxygen Demand (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.

D. OVERFLOW REPORTING

The permittee shall report all overflow/bypass via the website with the compliance date mentioned above. If paper reports are submitted before the compliance date, they shall be summarized and reported in a 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. However, within 24 hours of the time the permittee becomes aware of the sewer overflow or bypass event.

The permittee must also use Net-Sewer-Overflow, available at <https://cdx.epa.gov/>, to submit a Sewer Overflow/Bypass Event Report to the EPA and NMED within five days of becoming aware of a sewer overflow or bypass event that poses a threat to 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-Sewer-Overflow, 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. influent loadings, flow, and design capacity;
- b. effluent quality and plant performance;
- c. 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. financial status of the facility;
- h. preventative maintenance programs and equipment conditions; and,
- i. the overall evaluation of conditions at the facility.

PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL)

The permittee shall use sufficiently sensitive EPA-approved analytical methods (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most sufficiently sensitive methods (lowest minimum levels) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). The following pollutants may not have EPA-approved methods with a published ML at or below the effluent limit, if specified:

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

For pollutants listed on Appendix A of Part II with MQLs, analyses *may* be performed at the listed MQL. Suppose any individual analytical test result is less than the MQL listed. In that case, a value of zero (0) may be used for that pollutant result for the DMR reporting requirements. In addition, any additional pollutant sampling for purposes of this permit, including renewal applications or any other reporting, may be tested to the MQL, permit limit(s), or the state WQS. Results of analyses that are less than the listed MQL, permit limit(s), or the state WQS may be reported as “non-detect.” Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent-specific MQL may be utilized by the permittee for all future DMR reporting requirements until/or unless changes are required for adoption of a lower MQL.

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

Total residual chlorine and E. coli bacteria

C. PERMIT MODIFICATION AND REOPENER

Per 40 CFR Part 122.44(c), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico’s Water Quality Standards for Interstate and Intrastate Streams are revised, or new State of New Mexico water quality standards are established and/or remanded.

Per 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 the 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 a pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
 - c. Solid or viscous pollutants in amounts that will obstruct the flow in the POTW, resulting in interference;
 - d. Any pollutant, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration that 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 °C (104o°F) unless the Approval Authority, upon request of the POTW, approves the alternate temperature limitation;
 - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral 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.

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 such change in the quality or quantity of effluent to be discharged from the publicly owned treatment works.

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 cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

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

Applicable to final outfall(s): 001	
Reported on DMR as final outfall	001
Critical dilution (%)	100
Effluent dilution series (%)	32, 42, 56, 75, 100
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 Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic 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 WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. REQUIRED TEST ACCEPTABILITY CRITERIA AND TEST CONDITIONS

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>
Test Duration	Until 60% or more of surviving control females have 3 broods (max 8 days)	7 days
# of replicates per concentration	10	5
# of organisms per replicate	1	8
# or organisms per concentration	10	40 (minimum)
# 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
Sampling Requirement *	Minimum of 3 samples	Minimum of 3 samples
Test Acceptability Criteria	≥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.	
Coefficient of Variation **	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.
Percent Minimum Significant Difference (PMSD range) for Sublethal Endpoint **	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 because 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 hours is allowed upon notification to EPA and NMED 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 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>Ceriodaphnia dubia</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".	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

4. PERSISTENT TOXICITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal and/or sub-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, growth or reproduction 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 and/or sub-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 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.

b. Requirement to Initiate a Toxicity Reduction Evaluation

If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate TRE requirements as specified in Part 6 of this section. If persistent sub-lethality is demonstrated by failure of two or more retests, the permittee shall initiate TRE requirements. The permittee shall notify EPA 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 for lethal TREs or second failed retest for sub-lethal TREs. 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.

5. TOXICITY REDUCTION EVALUATION (TRE)

EPA Region 6 is currently addressing TREs as follows: A TRE is triggered following three sub-lethal test failures (a failure followed by two retest failures) or two test failures with lethal effects (a failure followed by one retest failure).

a. Within ninety (90) days of confirming lethality and/or sub-lethality in the retests, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE to the EPA WET Coordinator at 6WQ-PO. 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. 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).