



**Region 6**  
**1445 Ross Avenue**  
**Dallas, Texas 75202-2733**

**NPDES Permit No. NM0022292**

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**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

**City of Santa Fe Paseo Real WWTP**  
**P.O. Box 909**  
**Santa Fe, NM 87504-0909**

is authorized to discharge to receiving waters named Santa Fe River in Segment No. 20.6.4.113 of the Rio Grande Basin, from a facility located at 73 Paseo Real, Santa Fe, in Santa Fe County, New Mexico.

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

Outfall 001: Latitude 35° 37' 52.41" N, Longitude 106° 05' 18.88" W

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV hereof.

This permit supersedes and replaces NPDES Permit No. NM0022292 issued on June 8, 2010.

This permit shall become effective on

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

**Issued on**

**Prepared by**

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

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Quang Nguyen  
Environmental Engineer  
Permits Section (6WQ-PP)

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**SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS.**

**Final Effluent limits – 13 MGD Design Flow**

During the period beginning the effective date of this permit and lasting through the expiration date of this permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater to the Santa Fe River, in Segment Number 20.6.4.113, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Standard Units		MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	MINIMUM	MAXIMUM		
pH	6.6	9	Daily	Instantaneous Grab

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	lbs/day, unless noted			mg/l, unless noted (*1)			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX		
Flow	Report MGD	Report MGD	Report MGD	***	***	***	Daily	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	709 (*2)	N/A	Report	10	15	N/A	Daily	24-Hr Composite
Total Suspended Solids	2127(*2)	N/A	Report	30	45	N/A	Daily	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (5-day) % removal, minimum	≥ 85%	---	---	---	---	---	1/Week	Calculation (*6)
Total Suspended Solids % removal, minimum	≥ 85%	---	---	---	---	---	1/Week	Calculation (*6)
E. coli Bacteria	N/A	N/A	N/A	126(*3)	N/A	410(*3)	Daily	Grab
Total Phosphorous	108	Report	N/A	3.1	N/A	Report	3/Month	24-Hr Composite
Total Nitrogen	265	Report	N/A	6.9	N/A	Report	3/Month	24-Hr Composite
NH <sub>3</sub> N (Total as N)	141.8(*2)	Report	N/A	2	N/A	Report	Daily	24-Hr Composite (*7)
Nitrate+Nitrite (as N)	212.7(*2)	Report	N/A	3	N/A	Report	Daily	24-Hr Composite
Dissolved Oxygen	Report	N/A	N/A	Minimum 5 mg/l			Daily	Instantaneous Grab
Total Residual Chlorine	N/A	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily	Instantaneous Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
	30-DAY AVG	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Whole Effluent Lethality (22414) (7-Day NOEC) *5				
<i>Pimephales promelas</i>	100%	100%	Once/year	24-Hr Composite
<i>Ceriodaphnia dubia</i>	100%	100%	Once/6 months	24-Hr Composite

Footnotes:

- \*1 See Appendix A of Part II of the permit for minimum quantification limits.
- \*2 Permit limits established by TMDLs for the Santa Fe River. Loading limits determined based on a design flow of 8.5 MGD.
- \*3 Colony forming units (cfu) per 100ml. The E. coli bacteria 30-day average is the geometric mean of the values for all effluent samples collected during a calendar month.
- \*4 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. Regulations at 40 CFR Part 136 define “instantaneous grab” as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*5 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, WET testing requirements for additional WET monitoring and reporting conditions.
- \*6 Percent removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] x 100.
- \*7 24-hour composite sample consists of a minimum of twelve (12) effluent portions collected at equal time intervals over a 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.

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FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

The discharge shall be free of oils, scum, grease, and other floating materials resulting from other than natural causes that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant, or aquatic life.

**SECTION B. SCHEDULE OF COMPLIANCE**

Compliance Schedule 1: The permittee shall achieve compliance with Total Nitrogen limitations within six months from the effective date of this permit. No later than 14 calendar days following the date for compliance for Total Nitrogen, the permittee shall submit a written notice of compliance or noncompliance. The written notice shall report on all tasks that were done to achieve compliance.

Compliance Schedule 2: The permittee shall achieve compliance with Total Phosphorous limitations within six months from the effective date of this permit. No later than 14 calendar days following the date for compliance for Total Phosphorous, the permittee shall submit a written notice of compliance or noncompliance. The written notice shall report on all tasks that were done to achieve compliance.

**SECTION C - MONITORING AND REPORTING**

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. All DMRs shall be electronically reported effective December 21, 2016 per 40 CFR 127.16. To submit electronically, access the NetDMR website at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and contact the [R6NetDMR@epa.gov](mailto:R6NetDMR@epa.gov) in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted monthly.
  - a. Reporting periods shall end on the last day of each month.
  - b. The permittee is required to submit regular monthly reports no later than the 15<sup>th</sup> day of the month.
  - c. The annual sludge report required in Part IV of the permit is due on February 19 of each year and covers the previous calendar year from January 1 through December 31.
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<sub>5</sub>) or for five day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), as applicable, where the permittee can demonstrate long term correlation of the method with BOD<sub>5</sub> or CBOD<sub>5</sub> values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.

6. The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary). Overflows that endanger health or the environment shall be orally reported to EPA at (214) 665-6595, and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows that endanger health or the environment shall be provided to EPA and NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

#### **D. POLLUTION PREVENTION REQUIREMENTS**

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

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

## **PART II - OTHER CONDITIONS**

### **A. MINIMUM QUANTIFICATION LEVEL (MQL) & SUFFICIENTLY SENSITIVE METHODS**

EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is “sufficiently sensitive” when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

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

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

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant

parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, *but* the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

## **B. PERMIT MODIFICATION AND REOPENER**

In accordance with 40 CFR Part 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of the 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..

In accordance with 40 CFR Part 122.62(s)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

## **C. 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 of New Mexico 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%  
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 Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.
- c. This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

**2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS**

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. The purpose of additional tests (also referred to as ‘retests’ or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

If any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit.

- a. Part I Testing Frequency Other Than Monthly
  - i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The 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 procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.
  - ii. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days 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 be also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.
  - iii. IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any two of the three additional tests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity

Reduction Evaluation (TRE<sub>SL</sub>) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required for failure to perform the required retests.

- iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.

**3. 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. The toxicity test control (0% effluent) must have 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 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 in the Fathead minnow test.
- vii. A Percent Minimum Significant Difference (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

- i. For the *Ceriodaphnia dubia* survival test, the statistical analyses used to determine if there is a 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.
- ii. 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.
- iii. If the conditions of Test Acceptability are met in Item 3.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 DMR reporting requirements found in Item 4 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 where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of in-stream toxicity (fails to fulfill the test acceptance criteria of Item 2.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
  - (a) A synthetic dilution water control which fulfills the test acceptance requirements of Item 2.a was run concurrently with the receiving water control;
  - (b) The test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
  - (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 second and third composite samples for use during 24 hour renewals of each dilution concentration for each test. 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.
- iii. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 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.
- 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 if the discharge occurs over multiple 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 4 of this section.
- v. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item 1.a above for the day the sample was collected. The permittee shall perform the toxicity test on the flow weighted composite of the outfall samples.

4. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.
- b. A valid test for each species must be reported on the DMR 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. Only ONE set of bio-monitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects

results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

- c. The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. *Pimephales promelas*

- (a) If the No Observed Effect Concentration (NOEC) for lethal effects is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP6C.
- (b) Report the NOEC value for survival, Parameter No. TOP6C.
- (c) Report the Lowest Observed Effect Concentration (LOEC) value for survival, Parameter No. TXP6C.
- (d) Report the NOEC value for growth, Parameter No. TPP6C.
- (e) Report the LOEC value for growth, Parameter No. TYP6C.
- (f) If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP6C.
- (g) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C.

ii. *Ceriodaphnia dubia*

- (a) If the NOEC for lethal effects is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP3B.
- (b) Report the NOEC value for survival, Parameter No. TOP3B.
- (c) Report the LOEC value for survival, Parameter No. TXP3B.
- (d) Report the NOEC value for reproduction, Parameter No. TPP3B.
- (e) Report the LOEC value for reproduction, Parameter No. TYP3B.
- (f) If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP3B.
- (g) Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B.

- d. Enter the following codes on the DMR for retests only:

- i. For retest number 1, Parameter 22415, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'
- ii. For retest number 2, Parameter 22416, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'
- iii. For retest number 3, Parameter 51443, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'

## 5. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRE<sub>SL</sub>) is triggered based on three sub-lethal test failures while a lethal effects TRE (TRE<sub>L</sub>) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE<sub>SL</sub> where there are no effects at effluent dilutions of less than 76% effluent.

- a. Within ninety (90) days of confirming persistent toxicity, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation 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 goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:
  - i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures 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) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA/600/6-91-005F), 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. The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce  
National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161
  - ii. **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 lethality was demonstrated within 48 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;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and,
  - iv. 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. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
- i. Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
  - ii. Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and,
  - iii. Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality 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 lethality 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 Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

- 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).

**6. MONITORING FREQUENCY REDUCTION (For Ceriodaphnia dubia ONLY)**

- a. The permittee may apply for a testing frequency reduction upon the successful completion of the first two consecutive semi-annual of testing for the Ceriodaphnia dubia test species only, with no lethal or sub-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 more sensitive Ceriodaphnia dubia test species.
- b. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.
- c. SUB-LETHAL OR SURVIVAL FAILURES - If any test fails the survival or sub-lethal endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is reissued. Monthly retesting is not required if the permittee is performing a TRE.

Any monitoring frequency reduction granted 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.

## PART II – OTHER REQUIREMENTS

### SECTION A. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was approved on December 20, 1984, and modified on March 1, 1994, September 26, 2006, and February 26, 2008. The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements.
  - (a) Industrial user (IU) information shall be updated at a frequency adequate to ensure that all IUs are properly characterized at all times.
  - (b) The frequency and nature of industrial user compliance monitoring activities by the permittee shall be commensurate with the character, consistency and volume of waste. The permittee must inspect and sample the effluent from each Significant Industrial in accordance with 40 CFR 403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
  - (c) The permittee shall enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements.
  - (d) The permittee shall control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3 (v), this control shall be achieved through individual or general control mechanisms, in accordance with 40 CFR 403.8(f)(1)(iii). Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:
    - (i) Statement of duration (not to exceed five years);
    - (ii) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
    - (iii) Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
    - (iv) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored (including the process for seeking a waiver for a pollutant neither present nor expected to be present in the Discharge on accordance with §403.12(e)(2), or a specific waiver pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards in 40 CFR 403, categorical Pretreatment Standards, local limits, and State and local law;
    - (v) Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond

- federal deadlines ; and
- (vi) Requirements to control slug discharges, if determined by the POTW to be necessary.
  - (e) The permittee shall evaluate, whether each Significant Industrial User needs a plan or other action to control slug discharges, in accordance with 40 CFR 403.8(f)(2)(vi).
  - (f) The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
  - (g) The approved program shall not be modified by the permittee without the prior approval of the EPA.
2. The permittee shall establish and enforce specific limits to implement the provisions of 40 CFR Parts 403.5 (a) and (b), as required by 40 CFR Part 403.5 (c). POTWs may develop Best Management Practices (BMPs) to implement paragraphs 40 CFR 403.5 (c)(1) and (c)(2). Such BMPs shall be considered local limits and Pretreatment Standards. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

The permittee shall, within **sixty (60) days** of the effective date of this permit, (1) submit a **WRITTEN CERTIFICATION** that a technical evaluation has been demonstrated that the existing technically based local limits (TBLL) are based on current state water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination, **OR** (2) submit a **WRITTEN NOTIFICATION** that a technical evaluation revising the current TBLL and a draft sewer use ordinance which incorporates such revisions will be submitted within **12 months** of the effective date of this permit.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 CFR Part 403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR 122 Appendix D (NPDES Application Testing Requirements) Table II at least **once/12 months** and the toxic pollutants in Table III at least **once/3 months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least **once/3 months** on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. **Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR 136. The effluent samples shall be analyzed to a level at least as low as required in item (6) below.** Where composite samples are inappropriate, due to sampling, holding time, or analytical constraints, at least 4 grab samples, taken at equal intervals over a representative 24 hour period, shall be taken.

4. The permittee shall prepare annually a list of Industrial Users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements. For the purposes of this Part, significant noncompliance shall be determined based upon the more stringent of either criteria established at 40 CFR Part 403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW during the month of **December**.

In addition, during the month of **December** the permittee shall submit an updated pretreatment program status report to EPA and the State containing the following information:

- (a) An updated list of all significant industrial users and identify which Industrial Users are Non-Significant Categorical Industrial Users (NSCIUs) or Middle Tier CIUs. The list must also identify:
- Industrial Users subject to categorical Pretreatment Standards that are subject to reduced monitoring and reporting requirements under 40 CFR 403.12(e)(2) & (3);
  - Industrial Users subject to the following categorical Pretreatment Standards [Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) (40 CFR part 414), Petroleum Refining (40 CFR part 419), and Pesticide Chemicals (40 CFR part 455)] and for which the Control Authority has chosen to use the concentration-based standards rather than converting them to flow-based mass standards as allowed at 40 CFR 403.6(c)(6);
  - Categorical Industrial Users subject to concentration-based standards for which the Control Authority has chosen to convert the concentration-based standards to equivalent mass limits, as allowed at 40 CFR 403.6(c)(5);
  - General Control Mechanisms used for similar groups of SIUs along with the substantially similar types of operations and the types of wastes that are the same, for each separate General Control Mechanism, as allowed at 40 CFR 403.8(f)(1)(iii); and,
  - Best Management Practices or Pollution Prevention alternatives required by a categorical Pretreatment Standard or as a local limit requirement that are implemented and documentation to demonstrate compliance, as required at 40 CFR 403.12 (b), (e) and (h).

For each industrial user listed the following information shall be included:

- (i) Standard Industrial Classification (SIC) or NAISC code and categorical determination;
- (ii) Control document status. Whether the user has an effective control document, and the date such document was last issued, reissued, or modified, (indicate which industrial users were added to the system (or newly identified) within the previous 12 months);
- (iii) A summary of all monitoring activities performed within the previous 12 months. The following information shall be reported:
  - ✓ Total number of inspections performed;
  - ✓ Total number of sampling visits made.

- (iv) Status of compliance with both effluent limitations and reporting requirements. Compliance status shall be defined as follows:
    - ✓ Compliant (C) - no violations during the previous 12 month period;
    - ✓ Non-compliant (NC) - one or more violations during the previous 12 months but does not meet the criteria for significantly noncompliant industrial users;
    - ✓ Significant Noncompliance (SNC) - in accordance with requirements described in 4. above; and,
  - (v) For significantly noncompliant industrial users, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If ANY industrial user was on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained.
- (b) A list of all significant industrial users whose authorization to discharge was terminated or revoked during the preceding 12 month period and the reason for termination;
  - (c) A report on any interference, pass through, upset or POTW permit violations known or suspected to be caused by industrial contributors and actions taken by the permittee in response;
  - (d) The results of all influent and effluent analyses performed pursuant to Part II(A)(3) above;
  - (e) A copy of the newspaper publication of the significantly noncompliant industrial users giving the name of the newspaper and the date published;
  - (f) The information requested may be submitted in tabular form as per the example tables provided for your convenience; and,
  - (g) The monthly average water quality based effluent concentration necessary to meet the state water quality standards as developed in the approved technically based local limits.
5. 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;
  - (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; and,
  - (c) Adequate notice shall include information on
    - (1) the quality and quantity of effluent to be introduced into the treatment works, and
    - (2) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.
6. All effluent monitoring conducted in accordance with Part II(A)(3) above shall meet the Minimum Quantification Levels (MQLs) shown in Part II) Appendix A



MONITORING RESULTS(1) FOR THE ANNUAL PRETREATMENT REPORT, REPORTING YEAR: \_\_\_\_\_, 20\_\_\_\_ TO \_\_\_\_\_, 20\_\_\_\_  
 TREATMENT PLANT: Santa Fe Paseo Real WWTP NPDES PERMIT NO. NM0022292

POLLUTANT	MAHL, if applicable, in g/L	Influent Values (in g/L) on Dates Sampled				Daily Average Effluent Limit in g/L	Effluent Values (in g/L) on Dates Sampled			
Antimony (Total)										
Arsenic (Total)										
Beryllium (Total)										
Cadmium (Total)										
Chromium (Total)										
Copper (Total)										
Lead (Total)										
Mercury (Total)										
Molybdenum (Total)										
Nickel (Total)										
Selenium (Total)										
Silver (Total)										
Thallium (Total)										
Zinc (Total)										
Cyanide (Total)										

**FOOTNOTE**

(1) It is advised that the influent and effluent samples are collected considering flow detention through each treatment plant. Analytical MQLs should be used so that the data can also be used for Local Limits assessment and NPDES application process

**(1) SIGNIFICANTLY NONCOMPLIANT USERS - ENFORCEMENT ACTIONS TAKEN**

INDUSTRIAL USER	NATURE OF VIOLATION		NUMBER OF ACTIONS TAKEN					PENALTIES COLLECTED	COMPLIANCE SCHEDULE		CURRENT STATUS	COMMENTS
	REPORTS	LIMITS	N.O.V.	A.O.	CIVIL	CRIMINAL	OTHER		DATE ISSUED	DATE DUE		

**FOOTNOTE**

(1) Record the names of the pollutants [40 CFR 122, Appendix D, Table II and/or Table V] detected and the quantity in which they were detected.

**PRETREATMENT PROGRAM STATUS REPORT UPDATED SIGNIFICANT INDUSTRIAL USERS LIST**

INDUSTRIAL USER	SIC CODE	CATEGORICAL DETERMINATION	CONTROL DOCUMENT		NEW USER	TIMES INSPECTED	TIMES SAMPLED	COMPLIANCE STATUS				EFFLUENT LIMITS
			Y/N	LAST ACTION				REPORTS				
								BMR	90-DAY COMPLIANCE	SEMI ANNUAL	SELF MONITORING	