REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733 **NPDES Permit No NM0031216**

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"),

United States Air Force
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117

is authorized to discharge from the facility, Kirtland Air Force Base 377 ABW located at 2000 Wyoming Blvd SE, Bernalillo County, NM. The discharge will be to receiving waters named Tijeras Arroyo in Segment No. 20.6.4.98 of the Rio Grande Basin,

the discharges are located on that water at the following coordinates:

Outfall 001: Latitude 35º 1' 28.86" North, Longitude 106º 32' 55.32 West,

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

This a first-time permit, prepared by Quang Nguyen, Environmental Engineer, Permitting Section (6WQ-PP), shall become effective on

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

Issued on

Charles W. Maguire
Director
Water Division (6WQ)

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PART I – REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

1. FINAL Effluent Limits – 800 GPM Design Flow

During the period beginning the initial discharge of new facility with design flow at 800 gpm and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated water to Tijeras Arroyo, in Segment Number 20.6.4.098, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	Daily (*1)	Grab

POLLUTANT (*7)	30-DAY AVG	DAILY MAX	30-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow to Tijeras Arroyo	Report (MGD)	Report (MGD)	***	***	Daily (*1)	Estimate (*2)
Flow to On-base Golf Course	Report (MGD)	Report (MGD)	***	***	Daily	Estimate (*2)
Flow to Regional Aquifer	Report (MGD)	Report (MGD)	***	***	Daily	Estimate (*2)
Temperature	***	***	Report (°C)	Report (°C)	Daily (*1)	Grab
Ethylene dibromide (EDB) CAS Number 106-93-4	Report (lbs/day)	Report (lbs/day)	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Total Residual Chlorine	***	***	***	11 ug/L	1/Week (*1)	Grab (*6)
Total Suspended Solids (TSS)	***	***	21 mg/L	33 mg/L	3/Week (*1)	Grab
Chemical Oxygen Demand	***	***	Report (mg/L)	Report (mg/L)	1/Week (*1)	Grab
BOD	***	***	26 (mg/L)	48 (mg/L)	3/Week (*1)	Grab
Oil and grease	***	***	8 (mg/L)	15 (mg/L)	3/Week (*1)	Grab
Nitrogen (NO3-NO2)	***	***	Report (mg/L)	Report (mg/L)	1/Week (*1)	Grab
Ammonia (as N)	***	***	Report (mg/L)	Report (mg/L)	1/Week (*1)	Grab
Antimony (dissolved (D))	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Arsenic (D)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Nickel (D)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Selenium (D)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Thallium (D)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Zinc (D)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab

Mercury (T)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
4, 4'-DDT and derivatives	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Toxaphene	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Heptachlor epoxide	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Aldrin	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
2,3,7,8-TCDD (Dioxin)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Dieldrin	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
PCBs	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Benzo(a)pyrene	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Chlordane	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Hexachlorobenzene	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
per- and polyfluoroalkyl substances (PFAS)	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab
Tetrachloroethylene.	***	***	Report (ug/L)	Report (ug/L)	3/Week (*1)	Grab

WHOLE EFFLUENT TOXICITY TESTING (48-HOUR ACUTE NOEC FRESHWATER) (*3)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia Pulex	Report	Report	Once/Year (*1)(*4)(*5)	Grab

Footnotes

*1 When discharging occurs.

*2 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. Flow may be estimated using sound analytical techniques.

*3 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

*4 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 EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any. See Part II of the permit for WET testing requirements.

*5 The discharge shall be tested between November 1 and April 30 after the permit effective date.

*6 The effluent limitation for TRC is the instantaneous maximum grab sample taken during periods of chlorine use and cannot be averaged for reporting purposes. Instantaneous maximum is defined in 40 CFR Part 136 as being measured within 15 minutes of sampling.

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

FLOATING SOLIDS, VISIBLE FOAM, GREASE AND/OR OILS

There shall be no discharge of oils, scum, grease and other floating materials 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.

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.

B. SCHEDULE OF COMPLIANCE

None

C. MONITORING AND REPORTING

1. Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at https://netdmr.epa.gov. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain a waiver, please contact: U.S. EPA-Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-7179. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED, as required (See Part III.D.IV of the permit). Reports shall be submitted monthly

2. Reporting periods shall end on the last day of the months.

3. The first Discharge Monitoring Report(s) shall represent facility operations from the effective date of the permit through the last day of the current reporting period.

4. Thereafter, the permittee is required to submit regular monthly reports as described above postmarked no later than the 15th day of the month following each reporting period.

5. NO DISCHARGE REPORTING - If there is no discharge from any outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

6. If any daily maximum or monthly average value exceeds the effluent limitations specified in Part I. A, the permittee shall report the excursion in accordance with the requirements of Part III. D.

7. Any daily maximum or monthly average value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I. A shall constitute evidence of violation of such effluent limitation and of this permit.

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:

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

None

C. PERMIT MODIFICATION AND REOPENER

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

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

D. WHOLE EFFLUENT TOXICITY TESTING (48-HOUR ACUTE NOEC FRESHWATER)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

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

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA 821 R 02 012 or the latest 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 defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.

c. 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.

d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

e. 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 EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

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:

- Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

- The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent).

- The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited.

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

The statistical analyses used to determine if there is a statistically 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 02 012 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 90% 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 NOEC of not less than the critical dilution for the reporting requirements found in Item 3 below.

c. Dilution Water

- 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;

- toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
- toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

- If the receiving water is unsatisfactory as a result of instream 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 synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

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

- the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3 below; and

- 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

- The permittee shall collect two **grab** samples from the outfall(s) listed at Item 1.a above.

- The permittee shall collect a second **grab** sample for use during the 24-hour renewal of each dilution concentration for the tests. The permittee must collect the **grab** 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 **grab** sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

- The permittee must collect the **grab** 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.

- 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 **grab** 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 **grab** 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.

1. 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 EPA 821 R 02 012, 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 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 biomonitoring data for each species is to be recorded for each reporting period. The data submitted should reflect the LOWEST Survival 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 for EPA review.

c. The permittee shall report the following results of each valid toxicity test. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.

Daphnia pulex

- If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.

- Report the NOEC value for survival, Parameter No. TOM3D.

- Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

d. If retests are required by EPA, enter the following codes:

- For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

- For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."