



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

**NPDES Permit No. NM0030376**

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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"),

Delta-Person Generating Station

725 Electric Ave SE

Albuquerque, NM 87105

is authorized to discharge from a facility located at 725 Electric Ave. SE, northeast of Rio Bravo and Broadway (approximately 4 miles south of downtown Albuquerque), in Bernalillo County, New Mexico

to receiving water that is an unnamed ephemeral unlined arroyo, thence into Albuquerque Metro Arroyo Flood Control Authority (AMAFCA) South Diversion Channel, reaching the Rio Grande, in Segment No. 20.6.4.105 of the Rio Grande Basin only in direct response to precipitation events, from

Outfall 001:            Latitude: 35° 01' 34" North, Longitude: 106° 38' 30" West

in accordance with this cover page and effluent limitations, monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits], II [Other Conditions], and III [Standard Conditions for NPDES Permits] hereof.

This permit supersedes and replaces NPDES Permit No. NM0030376 issued June 30, 2005.

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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Bill Luthans  
Acting Director  
Water Quality Protection Division (6WQ)

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Environmental Scientist  
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PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfalls 001

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 from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
		Standard Units			
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	9.0	1/Day	Grab (Totalizer)

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
POLLUTANT	STORET CODE	30-Day Avg	Daily Max	30-Day Avg	Daily Max	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	Daily	Totalizing meter
Total Suspended Solids	00530	11	38	30	100	1/Week	Grab
Hardness, CaCO <sub>3</sub>		NA	NA	Report	Report	1/Week	Grab
Zinc	01092	0.38	0.38	1.0	1.0	1/Week	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.011 (*3)	1/Week	Instantaneous Grab (*1)
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	00310	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Chemical Oxygen Demand (COD)		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Total Organic Oxygen (TOC)	81951	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Ammonia (as N)		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab

Nitrate-Nitrite (as N)		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Antimony (Dissolved)	01095	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Arsenic (Dissolved)	01000	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Beryllium (Dissolved)	01010	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Cadmium (Dissolved)	01025	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Copper (Dissolved)	01040	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Lead (Dissolved)	17503	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Mercury		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Nickel (Dissolved)	01065	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Selenium		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Silver (Dissolved)	01075	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Thallium (Dissolved)	01057	N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Cyanide (weak acid dissociable) (Dissolved)		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Phenols		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Aldrin		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Chlordane		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
4,4'-DDT and derivatives		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Dieldrin		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
2,3,7,8-TCDD dioxin		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Hexachlorobenzene		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
PCBs		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab
Tetrachloroethylene		N/A	N/A	Report	Report	At 1 <sup>st</sup> Discharge (*4)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
WHOLE EFFLUENT TOXICITY TESTING (*2) (48-Hour Static Renewal)	Report	Report	1/year (*2)	Composite
<i>Daphnia pulex</i>	Report	Report	1/year (*2)	Composite

## Footnotes:

- \*1 The effluent limitation for TRC is the instantaneous maximum grab sample taken during periods of chlorine use and can not be averaged for reporting purposes. Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. Samples shall be representative of period of chlorination.
- \*2 Monitoring and reporting requirements begin on the effective date of this permit. Samples should be taken in upon first discharge. See PART II, Whole Effluent Toxicity testing requirements for additional WET monitoring and reporting conditions.
- \*3 See Part II- Other Conditions A. Minimum Quantification Level (MQL).
- \*4 Monitoring and reporting requirements begin on the effective date of this permit. Samples should be taken upon first discharge.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at Outfall 001, prior to the unnamed, unlined arroyo at:

Latitude: 35° 01' 34" North, Longitude: 106° 38' 30" West

SAMPLING RESTRICTIONS

Sampling shall be representative of evaporation cooling blowdown wastewater only, and shall be taken prior to mixing with unregulated stormwater discharges.

FLOATING SOLIDS OR VISIBLE FOAM

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.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.

**B. REPORTING OF MONITORING RESULTS (MINOR DISCHARGERS)**

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

1. Reporting periods shall end on the last day of the months March, June, September, and December.
2. The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.

**C. COPY OF REPORTS AND APPLICATION TO NMED**

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

**D. HUMAN HEALTH CRITERIA**

The New Mexico Water Quality Control Commission adopted human health criteria to its Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) as effective October 11, 2002. To ensure human health standards are protected, the effluent must be sampled and analyzed for those pollutants which have numeric human health criteria. The sampling will demonstrate if the discharge has a reasonable potential to exceed human health standards. The applicant MUST conduct a one-time sampling of the cooling blowdown by April 2010, or when discharge first commences after the permit's effective date, whichever comes first. The facility will provide the analytical results, within 60-days, to both EPA and NMED, for the pollutants listed as follows: Biochemical Oxygen Demand, Chemical Oxygen Demand (COD), Total Organic Oxygen (TOC), Total Suspended Solids (TSS), Hardness (CaCO<sub>3</sub>), Ammonia (as N), Total Residual Chlorine (TRC), Nitrate-Nitrite (as N), Antimony (dissolved), Arsenic (dissolved), Beryllium (dissolved), Cadmium (dissolved), Copper (dissolved), Lead (dissolved), Mercury (dissolved), Nickel (dissolved), Selenium (dissolved), Silver (dissolved), Thallium (dissolved), Cyanide (weak acid dissociable) (dissolved), Phenols, Aldrin, Chlordane, 4,4'-DDT and derivatives, Dieldrin, 2,3,7,8-TCDD dioxin, Hexachlorobenzene, PCBs, and Tetrachloroethylene

The permittee must report the results with the Discharge Monitoring Report, and submit a copy of these results to both EPA and NMED. If any pollutant exceeds State human health standards, then the permit may be reopened and additional permit requirements may be added.

F. CWA 316(b)

This facility uses well water for cooling purposes so it is not subject to CWA 316(b) requirements.

PART II - OTHER CONDITIONSA. MINIMUM QUANTIFICATION LEVEL (MQL)

See list of MQL's at Appendix A of Part II below. For pollutants listed on Appendix A of Part II below with MQL's, analyses must be performed to the listed MQL. If any individual analytical test result is less than the MQL listed, a value of zero (0) may be used for that pollutant result for the Discharge Monitoring Report (DMR) calculations and reporting requirements. The MQLs for the limited parameters of this permit are as follows: zinc - 20 µg/L and TRC - 33 µg/L.

In addition, any additional pollutant sampling for purposes of this permit, including renewal applications or any other reporting, shall be tested to the MQL shown on the attached Appendix A of Part II. Results of analyses that are less than the listed MQL maybe reported as "non detect" (ND).

B. REOPENER CLAUSE

The Rio Grande segment 20.6.4.105 has been scheduled for development of Total Maximum Daily Load (TMDL)/Waste Load Allocation (WLA). If the State re-evaluates and updates the final effluent limitation necessary to protect water quality standards during the life of this permit, and the effluent limitations are more stringent than those listed in this permit, or control a pollutant not listed in this permit, then the permit may be modified or revoked and reissued to conform with the approved TMDL final effluent limitations.

If the permittee requests for resuming discharge to the water of the United States on a long term basis, the permit may be reopen for modification.

C. PROHIBITION OF WATER TREATMENT CHEMICALS THAT USE CHROMIUM AND ZINC

Products containing chromium and zinc will be prohibited from use as additives to the utility waters.

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 AS FINAL OUTFALL: 001

CRITICAL DILUTION (%): 100%

100%

EFFLUENT DILUTION SERIES (%): 32%, 42%, 56%, 75%,

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:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent)-
- iii. 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 an NOEC of not less than the critical dilution for the reporting requirements found in Item 3 below.

c. Dilution Water

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

- (A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
  - (B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
- (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;
  - (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
  - (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
  - (D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.
- d. Samples and Composites
- i. The permittee shall collect two flow-weighted composite samples from the outfall(s) listed at Item 1.a above.
  - ii. The permittee shall collect a second composite sample for use during the 24-hour renewal of each dilution concentration for the tests. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.
  - iii. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of

chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

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

### 3. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of 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.

- i. *Daphnia pulex*
  - (A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
  - (B) Report the NOEC value for survival, Parameter No. TOM3D.
  - (C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.
  
- d. If retests are required by EPA and NMED, enter the following codes:
  - i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival 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 is less than the critical dilution; otherwise, enter a "0."