

PART II
OTHER CONDITIONS

A ALTERNATE EFFLUENT LIMITATIONS FOR PRECIPITATION EVENTS

(a) The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described above.

(b) The term “2-year, 24-hour precipitation event” means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, “Rainfall Frequency Atlas of the U.S.,” May 1961, or equivalent regional or rainfall probability information developed therefrom.

(c) The term “10-year, 24-hour precipitation event” means the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, “Rainfall Frequency Atlas of the U.S.,” May 1961, or equivalent regional or rainfall probability information developed therefrom.

B. PROCEDURE FOR SETTLEABLE SOLIDS

Fill an Imhoff cone to the one-liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. Where a separation of settleable and floating materials occurs, do not include the floating material in the reading.

The method detection limit for measuring settleable solids shall be 0.4 ml/L

C EFFLUENT LIMITATIONS FOR DISCHARGES FROM COAL PREPARATION AREAS

1. Except as results from a 10-year, 24-hour precipitation event, there shall be no discharge of process wastewater from the coal preparation plant water circuit to surface waters.

2. An occasional discharge or purge of pollutants may occur when necessary to reduce the concentration of solids or process chemicals in the water circuit to a level which would not interfere with the preparation process or process equipment, provided that:

Advance written notice is submitted to the permitting authority and the permitting authority does not disapprove of the discharge. Such notice shall include: (i) Description of the need for the discharge or purge; (ii) the period of discharge or purge, including anticipated dates and times; (iii) an estimate of discharge volume; and (iv) the intended receiving area.

The occasional purge or discharge, if discharged to waters of the United States, shall be subject to the following limitations:

<u>Parameters</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Monitoring Frequency</u>	<u>Sample Type</u>
TSS	70 mg/L	35 mg/L	1/Week	Grab
Iron (Total)	7.0 mg/L	3.5 mg/L	1/Week	Grab
pH	within the range of 6.0 to 9.0		1/Day	Grab
(pH range of 6.6 to 9.0 may apply if discharge is to a 20.6.4.98 NMAC water)				

The pollutants shall be sampled when discharging.

The operator shall have the burden of proof that the purge was necessary to reduce the concentration of solids or process chemicals in the water circuit to a level which would not interfere with the preparation process or process equipment.

D. MINIMUM QUALIFICATION LEVELS (MQLs)

The Permittees shall use sufficiently sensitive EPA-approved analytical methods (under 40 CFR part 136 and 40 CFR chapter I, subchapters N and O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the minimum quantification levels (MQLs) are not sufficiently sensitive to the limits, the actual detected values, instead of zeros, need to be reported. If there is a sensitive method with MDL (method detection limit) below the limit, but the MQL is above the limit, they cannot report zero based on MQL, but must report actual value.

If any individual analytical test result is less than the MQL listed in Appendix A or the MDL, whichever is more sensitive, a value of zero (0) may be used for that individual result for reporting purpose.

The Permittees may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR 136. For any pollutant for which the Permittees determine an effluent specific MDL, the Permittees shall send to the EPA Region 6 NPDES Permits Branch (6WQ-P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

E. REOPENER CLAUSE

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 State water quality standards are established and/or remanded by the New Mexico Water Quality Control Commission.

In accordance with 40 CFR Part 122.62(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.

F. SEDIMENT CONTROL PLAN

1. This subpart applies to drainage at western alkaline coal mining operations from reclamation areas, brushing and grubbing areas, topsoil stockpiling areas, and regraded areas where the discharge, before any treatment, meets all the following requirements:

- (a) pH is equal to or greater than 6.0;
- (b) Dissolved iron concentration is less than 10 mg/L; and
- (c) Net alkalinity is greater than zero.

(i) The term *brushing and grubbing area* means the area where woody plant materials that would interfere with soil salvage operations have been removed or incorporated into the soil that is being salvaged.

(ii) The term *regraded area* means the surface area of a coal mine that has been returned to required contour.

(iii) The term *sediment* means undissolved organic and inorganic material transported or deposited by water.

(iv) The term *sediment yield* means the sum of the soil losses from a surface minus deposition in macro-topographic depressions, at the toe of the hillslope, along field boundaries, or in terraces and channels sculpted into the hillslope.

(v) The term *topsoil stockpiling area* means the area outside the mined-out area where topsoil is temporarily stored for use in reclamation, including containment berms.

(vi) The term *western coal mining operation* means a surface or underground coal mining operation located in the interior western United States, west of the 100th meridian west longitude, in an arid or semiarid environment with an average annual precipitation of 26.0 inches or less.

2. The permittee shall implement and update as necessary an approved Sediment Control Plan (SCP) for all reclamation areas, brushing and grubbing areas, topsoil stockpiling areas and regraded areas as defined under Western Alkaline Coal Mining Rule at 40 CFR 434.80. The SCP, including all authorized updates, is incorporated into the permit as an effluent limitation as

required by 40 CFR 434.82(a). As further set forth herein, for areas containing commingled drainage, it is understood that the permittee will comply with the Western Alkaline Coal Mining Rule by utilizing sediment ponds, and other measures set forth in its SCP approved by the Mining and Minerals Division of the Energy Minerals and Natural Resources Department for the State of New Mexico (NMMMD), required for outfalls under the "alkaline mine drainage" requirements, 40 CFR Part 434, Subpart D, and "coal preparation plant and coal preparation plant associated areas," 40 CFR Part 434, Subpart B (collectively, "Active Mining"). After Active Mining ceases and 100% of the mining disturbed area in the drainage area to an outfall meets the definition of "western alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas," 40 CFR 434.80, a revised SCP will be submitted by the permittee to EPA and the NMMMD for approval to authorize the reclassification of such outfalls and the potential removal of sediment ponds.

- (a) The SCP shall be designed to prevent an increase in the average annual sediment yield from pre-mined, undisturbed conditions. The SCP shall identify best management practices (BMPs) and also shall describe design specifications, construction specifications, maintenance schedules, criteria for inspection, as well as expected performance and longevity of the best management practices. Where reclamation areas, brushing and grubbing areas, topsoil stockpiling areas and regraded areas are located in the same drainage area as active mining operations and coal preparation plant areas, the SCP may utilize and incorporate controls also used to comply with permit limitations applicable to the discharges from the active mining operations and coal preparation plant areas, including sediment ponds.
- (b) The permittee shall use the same watershed model that was, or will be, used to acquire the NMMMD permit. Where drainage subject to the SCP commingles with and is treated by sediment ponds designed for treatment of active mining or coal preparation plant area drainage and wastewater, modeling of the sediment pond removal efficiency and area-specific BMPs may be used to demonstrate that average annual sediment yields from reclamation areas, brushing and grubbing areas, topsoil stockpiling areas and regraded areas in the co-mingled drainage area will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. Watershed modeling for desired purposes of sediment control structures in these active mining or coal preparation plant areas based on sediment storage volume for the design event in accordance with NMMMD regulations may be used to meet average annual sediment yield modeling requirements.
- (c) The permittee has prepared and submitted a sediment control plan to the NMMMD, which was approved by the NMMMD as part of permittee's application for NMMMD Permit No. 2010-01. The SCP is designed so as to prevent an increase in the average annual sediment yield from pre-mined, undisturbed conditions. The permittee used SEDCAD watershed modeling in support of its NMMMD permit application, which demonstrates the effectiveness of the SCP. The SCP identifies BMPs, including sediment ponds, and describes design specifications, construction specifications,

maintenance schedules, criteria for inspection, as well as expected performance and longevity of the BMPs. The permittee shall design, implement, and maintain BMPs in the manner specified in the SCP throughout the permit term. The NMMMD approved SCP in effect as of the date of permit issuance consists of the portions of the NMMMD permit provided by LRCC and included as Attachment B of this permit. For the purposes of this permit, the requirement to implement the SCP applies to reclamation areas, brushing and grubbing areas, topsoil stockpiling areas and regraded areas and discharges subject to the Western Alkaline Coal Mining Effluent Guidelines. EPA recognizes that the Permittee's desire to use portions of the NMMMD permit as their SCP results in some portions of the SCP appearing to apply to areas not subject to the Western Alkaline Coal Mining Effluent Guideline Requirement for a SCP. The permittee is not required to implement the SCP on internal areas of a drainage area that are not reclamation areas, brushing and grubbing areas, topsoil stockpiling areas or regraded areas.

- (d) Operational changes may be made to an SCP without prior approval by EPA provided that the revisions:
- ✓ do not add or remove outfalls or sediment ponds; and
 - ✓ do not relocate an existing outfall to a different receiving water segment and not more than the 15 seconds of latitude/longitude from the location at the time of permit issuance (approximately 1518 feet-the level of accuracy required for outfall location in NPDES permit applications); and
 - ✓ implement sediment controls that are as effective or more effective than those in the originally approved SCP for any new or expanded reclamation areas, brushing and grubbing areas, topsoil stockpiling areas and regraded areas or replace ineffective controls with ones that will be effective in meeting the original intent of the SCP; and
 - ✓ continue to route all drainage through sediment ponds; and
 - ✓ are no less effective than those in any revised SCP approved by the NMMMD.
- (e) Once an outfall ceases to receive runoff from "alkaline mine drainage" areas (as defined under 40 CFR Part 434, Subpart D) and "coal preparation plant and coal preparation plant associated areas" (as defined under 40 CFR Part 434, Subpart B) and 100% of the drainage area to an outfall that has been disturbed by mining meets the definition of "western alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas" (as defined at 40 CFR 434.80), a revised SCP and watershed model meeting the requirements contained at 40 CFR Part 434.82 shall be submitted to and approved by EPA and the NMMMD before an outfall may be reclassified and a sediment pond that served as a BMP under a SCP may be removed and the revised SCP becomes effective. If the revised SCP is approved by the NMMMD, the SCP is considered to meet EPA approval, unless EPA disapproves it within 60 days after receiving the revised SCP. The Permittee will also send any EPA approved SCP revisions to NMED. The approval of a revised SCP to address the reclassification of an outfall to western alkaline coal mining (as defined under 40 CFR

Subpart H) or the termination of an outfall will be considered a minor modification to the permit as described in Part II.C of this permit.

- (f) Inspections and reporting on the SCP controls and implementation shall be conducted in accordance with the current NMMMD requirements and any requirements in the SCP. The Permittee shall submit annual pond certification reports, NMMMD mine inspection reports, and any reports required by the SCP to EPA and NMED annually. Reports prepared by the Permittee for compliance with NMMMD requirements may be used to satisfy any corresponding reporting requirements of the SCP.

G. SMCRA BOND RELEASE

When the appropriate regulatory authority returns a reclamation or performance bond based upon its determination that reclamation work has been satisfactorily completed on a watershed or a specific part of a disturbed area, the permittee may request to terminate the corresponding NPDES discharge points to that specific drainage area, if the permittee can demonstrate that the Phase III bond for that particular drainage area has been released.

H. 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): Mine Drainage

REPORTED AS FINAL OUTFALL: 01A

CRITICAL DILUTION (%): 100

EFFLUENT DILUTION SERIES (%): 32, 42, 56, 75, and 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 NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. 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 (Composite sample may be replaced with grab sample)

- 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 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."