UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

NPDES PERMIT NO. NN 0022179

In compliance with the provisions of the Clean Water Act ("CWA") (Public Law 92-500, as amended, 33 U.S.C. 1251 et seq.), the following discharger is authorized to discharge from the identified facility at the outfall location(s) specified below, in accordance with the effluent limits, monitoring requirements, and other conditions set forth in this permit:

Discharger Name	Peabody Western Coal Company
Discharger Address	P.O. Box 650
	Kayenta, AZ 86033
Facility Name	Black Mesa Complex
Facility Location Address	Route 41
	Kayenta, AZ 86033
Facility Rating	Major

Outfall Number	General Type of Waste Discharged	Outfall Latitude	Outfall Longitude	Receiving Water
Over 100 Outfalls listed in Appendix A -C	Alkaline Mine Drainage, Coal Preparation Areas, Western Alkaline Reclamation,	Over 100 Outfalls listed in Appendix A -C	Over 100 Outfalls listed in Appendix A -C	Coal Mine Wash, Moenkopi Wash, Dinnebito Wash, Yellow Water Canyon Wash and tributaries

This permit was issued on:	September 16, 2010
This permit shall become effective on:	November 1, 2010
This permit shall expire at midnight on:	October 31, 2015
In accordance with 40 CFR 122.21(d), the discharger shall submit a new application for a permit at least 180 days before the expiration date of this permit, unless permission for a date no later than the permit expiration date has been granted by the Director.	

Signed this ___16th of September _____, 2010, for the Regional Administrator.

_// Alexis Strauss //_____
Alexis Strauss, Director
Water Division

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SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Alkaline Mine Drainage Outfalls

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge mine drainage from the Outfall Numbers listed in Appendix A – "Alkaline Mine Drainage" to the receiving waters listed in Appendix A – "Alkaline Mine Drainage. Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with other waste source stream and/or discharge to surface waters.

Table A-1: Alkaline Mine Drainage Effluent Limitations and Monitoring Requirements

Effluent Parameter	Units	Monthly Average	Maximum For any 1 day	Monitoring Frequency (1)	Sampling Type
Flow	MGD	- -	- -	Continuous	Calculated(2)
TSS	mg/L	35	70	1/day(1)	Discrete
Iron, total	mg/L	3.5	7.0	1/day(1)	Discrete
pH	Std. units	between 6.5 to 9.0		1/day(1)	Discrete
Arsenic (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Cadmium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Chromium (total as Cr)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Lead (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Mercury (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Selenium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete

NOTES:
(1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.
(2) To determine total flow in gallons for each discharge and duration of discharge.
(3) Dissolved.
(4) Monitoring applies to all Outfalls located on the Hopi Reservation. No set limit at this time. Results will be evaluated for reasonable potential to exceed Hopi Tribe Water Quality Standards.

2. Coal Preparation Plants, Storage Areas, and Ancillary Area Runoff Outfalls

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge runoff from the Outfall Numbers listed in Appendix B – "Coal Preparation & Associated Areas" to the receiving waters listed in Appendix B – "Coal Preparation & Associated Areas". Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with other waste source stream and/or discharge to surface waters.

Table A-2: Coal Preparation Areas Effluent Limitations and Monitoring Requirements

Effluent Parameter	**Units**	**Monthly Average**	**Maximum For any 1 day**	**Monitoring Frequency (1)**	**Sampling Type**
Flow	MGD	- -	- -	Continuous	Calculated(2)
TSS	mg/L	35	70	1/day(1)	Discrete
Oil and Grease	mg/L	--	15	1/day(1)	Discrete
Iron, total	mg/L	3.5	7.0	1/day(1)	Discrete
pH	Std. units	between 6.5 to 9.0		1/day(1)	Discrete
Arsenic (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Cadmium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Chromium (total as Cr)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Lead (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Mercury (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Selenium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete

NOTES:

(1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.

(2) To determine total flow in gallons for each discharge and duration of discharge.

(3) Dissolved.

(4) Monitoring applies to all Outfalls located on the Hopi Reservation. No set limit at this time. Results will be evaluated for reasonable potential to exceed Hopi Tribe Water Quality Standards.

3. Western Alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded area Outfalls.

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge runoff from the Outfall Numbers listed in Appendix C – "Western Alkaline Reclamation Areas" to the receiving waters listed in Appendix C – "Western Alkaline Reclamation Areas".

Such discharges shall be limited and monitored by the permittee as specified below. The permittee must:

a) submit a site-specific Sediment Control Plan for EPA approval demonstrating that implementation of the Sediment Control Plan will result in average annual sediment yields that will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. The Sediment Control Plan shall, at a minimum, identify Best Management Practices (BMPs), including design specifications, construction specifications, maintenance schedules, criteria for inspection, and expected performance and longevity of the BMPs.

b) demonstrate using watershed models that the implementation of the Sediment Control Plan will result in average annual sediment yields that will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. The watershed model must be the same model that is being used to acquire the permittee's SMCRA permit.

c) design, implement, and maintain the BMPs in the manner specified in the approved Sediment Control Plan throughout the term of this permit.

d) revise the Sediment Control Plan to incorporate new areas. As existing outfalls defined in this permit as "alkaline mine drainage" are reclaimed, the approved Sediment Control Plan shall be updated to incorporate the newly reclaimed outfalls into this subpart. A revised Sediment Control Plan and revised watershed model must be submitted to EPA and approved by EPA before it becomes effective. Revisions to the Sediment Control Plan must meet all requirements contained at 40 CFR Part 434.82, and 100% of the drainage area to an outfall that has been disturbed by mining must meet the definition of "western alkaline reclamation, brushing and grubbing, topsoil stockpiling, and regraded areas" (as defined at 40 CFR 434.80) to be considered for coverage. EPA's approval of an updated Sediment Control Plan and reclassification of an existing outfall from "alkaline mine drainage" to a reclaimed area will be considered a minor modification to the permit as described in Section C of this permit.

4. Discharges resulting from precipitation events

a) The permittee is authorized to discharge runoff from Outfall Numbers listed in Appendix A – "Alkaline Mine Drainage" and Appendix B – "Coal Preparation & Associated Areas" resulting from precipitation events less than or equal to a 10-year, 24-hour precipitation event (1.80 inches within a 24 hour period)

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge runoff from all Outfalls resulting from precipitation events less than or equal to a 10-year, 24-hour precipitation event (1.80 inches within a 24 hour period).

Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with other waste source stream and/or discharge to surface waters.

During precipitation events, samples may be collected from a sampling point representative of the type of discharge, rather than from each point of discharge. At no time shall less than 20% of discharges be sampled. If samples are collected from a representative point, the permittee shall specify the Outfalls being represented in the quarterly report narrative.

Table A-4-a: Discharges from precipitation events less than 10-yr, 24-hr event.

Effluent Parameter	Units	Monthly Average	Maximum For any 1 day	Monitoring Frequency (1)	Sampling Type
Flow	MGD	- -	- -	Continuous	Calculated(2)
Settleable Solids	mL/L	- -	0.5	1/day(1)	Discrete
pH	Std. units	between 6.5 to 9.0		1/day(1)	Discrete
Arsenic (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Cadmium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Chromium (total as Cr)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Lead (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Mercury (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete
Selenium (3)(4)	ug/L	Monitor	Monitor	1/day(1)	Discrete

NOTES:
(1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.
(2) To determine total flow in gallons for each discharge and duration of discharge.
(3) Dissolved.
(4) Monitoring applies to all Outfalls located on the Hopi Reservation. No set limit at this time. Results will be evaluated for reasonable potential to exceed Hopi Tribe Water Quality Standards.

b) Discharges resulting from precipitation events great than a 10-year, 24-hour precipitation event (1.80 inches within a 24 hour period)

During the period beginning on the effective date of this permit and lasting through the date of expiration, the permittee is authorized to discharge runoff from all Outfalls resulting from precipitation events greater than a 10-year, 24-hour precipitation event (1.80 inches within a 24 hour period).

Such discharges shall be limited and monitored by the permittee as specified below. Samples shall be collected prior to mixing with other waste source stream and/or discharge to surface waters.

During precipitation events, samples may be collected from a sampling point representative of the type of discharge, rather than from each point of discharge. At no time shall less than 20% of discharges be sampled. If samples are collected from a representative point, the permittee shall specify the Outfalls being represented in the quarterly report narrative.

Table A-4-b: Discharges from precipitation events greater than 10-yr, 24-hr event.

Effluent Parameter	**Units**	**Maximum For any sample**	**Monitoring Frequency (1)**	**Sampling Type**
Flow	MGD	- -	Continuous	Calculated(2)
pH	std. units	between 6.5 to 9.0	1/day(1)	Discrete

NOTES:

(1) Samples shall be taken once during each occurrence or once every 24 hours if the duration of the occurrence is greater than 24 hours.

(2) To determine total flow in gallons for each discharge and duration of discharge.

5. <u>Seepage study</u>

Peabody Western Coal Company shall continue to implement the Seep Monitoring and Management plan designed to identify and characterize seeps; to identify those seeps that may pose a threat to water quality; and to establish Best Management Practices at seeps determined to pose a threat to water quality.

The plan shall be modified to address the construction of new impoundments, and shall include:

a. Identification of all seeps located within 100 meters downgradient of sediment impoundments including a record of the location, date, time, flow, proximity to waters of the United States, and accessibility by livestock.

b. Sampling (or summary of current data if sufficient and valid) of seepages identified in 5.a. for pH, Selenium (Total and Dissolved) and Nitrates. If Peabody submits past data, sampling techniques shall be described in order to determine validity of data. EPA, upon reviewing all data submitted, shall determine whether additional sampling should be performed.

c. Hydrogeologic modeling or studies in order to determine if the source the seeps are the impoundments and, if so, which impoundments.

d. Determination of source of Selenium and Nitrates, where data indicates that seepages have a reasonable potential to violate water quality standards.

The plan shall continue to be implemented as described in the "Interim Final Report – Seepage Monitoring and Management Report" April 1, 2008 and as approved by EPA .

The study results shall be submitted yearly to EPA.

EPA, upon reviewing the results of the study, may reopen the permit for the imposition of numerical limits and/or additional monitoring.

6. Gaging Stations

For the purpose of this permit, the gauge stations used to monitor rainfall for specific discharge points shall be:

Peabody Gauge No.		Discharge Points
1.	(ARG1)	048, 049, 050, 051, 052, 069, 070, 071, 087, 088, 089, 090, 147, 163, 169, 170, 171, 172, 173
5.	(ARG2R)	017, 018, 026, 027, 047, 086, 098, 105, 141, 142, 149, 178
7.	(ARG7R	008, 009, 013, 014, 016, 081, 094, 159, 160, 161, 162, 164, 165
8.	(ARG6R	024, 025, 030, 031, 032, 033, 039, 043, 103, 104, 127, 130, 133, 168
9.	(ARG9)	001, 002, 003, 005, 010, 012, 021, 022, 037, 045, 082, 083, 099, 139, 140, 150, 151, 153, 157
10.	(ARG3R)	054, 095, 106, 107, 118, 126, 136, 137, 143, 144, 152, 167, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193
11.	(ARG200)	079, 148, 174, 175, 176, 177, 179, 195
12.	(ARG12)	180, 181, 182, 183

SECTION B. GENERAL DISCHARGE SPECIFICATIONS

1. All Waters of the Navajo Nation shall be free from pollutants in amounts or combinations that, for any duration:

a. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare.
b . Cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
c. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.
d . Cause physical, chemical, or biological conditions that promote the habitation, growth, or propagation of undesirable, non-indigenous species of plant or animal life in the water body.
e. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a Elm or iridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.
f. Cause objectionable odor in the area of the water body.
g. Cause objectionable taste, odor, color, or turbidity in the water body.
h. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on, or adjacent to the water body.

2. The following General Standards apply to all surface and ground waters of the Hopi Tribe:

a. Stream Bottom Deposits: Surface waters shall be free from contaminants from other than natural causes that may settle and have a deleterious effect on the aquatic biota or that will significantly alter the physical or chemical properties of the water or the bottom sediments.

b. Floating Solids, Oil, and Grease: Surface waters shall be free from objectionable oils, scum, foam, grease, and other floating materials and suspended substances of a persistent nature

resulting from other than natural causes (including visible films of oil, globules of oil, grease, or solids in or on the water, or coatings on stream banks). As a guideline, oil and grease discharged into surface waters shall not exceed 10 mg/liter average or 15 mg/liter maximum.

c. Color: Surface waters shall be free from the true color-producing materials (other than those resulting from natural causes) that create an aesthetically undesirable condition. Color shall not impair the designated and other attainable uses of a water body. Color-producing substances from other than natural sources are limited to concentrations equivalent to 70 color units (CU).

d. Odor and Taste: Contaminants from other than natural causes are limited to concentrations that do not impart unpalatable flavor to fish, that do not result in offensive odor or taste arising from the water, and that do not otherwise interfere with the designated and other attainable uses of a water body. Taste and odor-producing substances from other than natural origins shall not interfere with the production of a potable water supply by modern treatment methods. Nuisance Conditions: Plant nutrients or other substances stimulating algal growth from other than natural causes shall not be present in concentrations that produce objectionable algal densities or nuisance aquatic vegetation, or that result in a dominance of nuisance species instream, or that cause nuisance conditions in any other fashion. Phosphorus and nitrogen concentrations shall not be permitted to reach levels that result in man-induced eutrophication problems. As a guideline, total phosphorus shall not exceed 100 µg/L instream or 50 µg/L in lakes and reservoirs, except in waters highly laden with natural silts or color that reduces the penetration of sunlight needed for plant photosynthesis, or in other waters where it can be demonstrated that algal production will not interfere with or adversely affect designated and other attainable uses. Alternative or additional nutrient limitations for surface waters may be established by the Hopi Tribe and incorporated into water quality management plans.

f. Pathogens: Waters shall be free from pathogens. Waters used for irrigation of table crops (e.g., lettuce) shall be free of salmonella and shigella species.

g. Turbidity: Turbidity attributable to other than natural causes shall not reduce light transmission to a point at which aquatic biota are inhibited or to a point that causes an unaesthetic and substantial visible contrast with the natural appearance of the water. Specifically, turbidity shall not exceed 5 nephelometric turbidity units (NTU, a measure of turbidity in water) over background when background turbidity is 50 NTU or less, with no more than a 10-percent increase when background turbidity is more than 50 NTU.

h. Temperature: The introduction of heat by other than natural causes shall not increase the temperature in a stream, outside a mixing zone, by more than 2.7EC (5EF), based upon the monthly average of the maximum daily temperatures measured at mid-depth or 3 feet

(whichever is less) outside the mixing zone. In lakes, the temperature of the water column or epilimnion (if thermal stratification exists) shall not be raised more than 1.7EC (3EF) above that which existed before the addition of heat of artificial origin, based upon the average of temperatures taken from the surface to the bottom of the lake, or surface to the bottom of the epilimnion (if stratified). The normal daily and seasonal variations that were present before the addition of heat from other than natural sources shall be maintained. In no case shall manintroduced heat be permitted when the maximum temperature specified for the reach (20EC/68EF for cold water fisheries and 32.2EC/90EF for warm water fisheries) would thereby be exceeded. High water temperatures caused by unusually high ambient air temperatures are not violations of these standards.

i. Salinity/Mineral Quality (total dissolved solids, chlorides, and sulfates): Existing mineral quality shall not be altered by municipal, industrial, and instream activities, or other waste discharges, so as to interfere with the designated or attainable uses for a water body. An increase of more than one-third over naturally occurring levels shall not be permitted.

j. pH: The following water quality standards for pH, expressed in standard units, shall not be violated by other than natural causes: Maximum 9.0; Minimum 4.5 ; Maximum change due to discharge: 0.5

k. Dissolved oxygen: If a stream or other water body is capable of supporting aquatic biota, the dissolved oxygen standard will be a minimum of 6 mg/L.

l. Fecal coliform: The following water quality standards for fecal coliform, expressed in colony forming units per 100 milliliters of water (cfu/100 mL), shall not be exceeded:
30-day geometric mean: (5 sample minimum): 200
10% of samples for a 30-day: 400
Single sample maximum: 800

m. Toxic Substances: Toxic substances shall not be present in receiving waters in quantities that are toxic to human, animal, plant, or aquatic life, or in quantities that interfere with the normal propagation, growth, and survival of the sensitive indigenous aquatic biota. Within the mixing zone, there shall be no acute toxicity.

n. Water discharged under this permit shall not contain settleable materials or suspended materials in concentrations great than or equal to ambient concentrations present in the receiving stream that cause nuisance or adversely affect beneficial uses.

o.Activities conducted under this permit shall not result in the violations of any narrative and numeric criteria established in the Hopi Tribe's Water Quality Standards.

SECTION C. PERMIT REOPENER

Should any of the monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursions above water quality criteria, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards.

This permit authorizes the discharge of wastewater from over 110 outfalls in 3 distinct subcategories. Throughout the permit term, as mine operations continue in a linear fashion, new outfall locations may become necessary to treat runoff and other outfalls may need to be authorized under a different subcategory. Therefore, EPA may modify the list of Outfalls in the Appendixes during the permit term to add, terminate or reclassify a discharge that occurs during the anticipated course of the existing mining activities. This will be accomplished thru a minor modification of the permit in accordance with 40 CFR Part 122.63. The permit may be reopened to authorize new outfalls for an area not currently being mined through a major modification to the existing permit 40 CFR Part 122.63.

SECTION D. MONITORING AND REPORTING

1. Reporting of Monitoring Results

a. Monitoring results shall be reported on Discharge Monitoring Report (DMR) forms (EPA No. 3320-1) to be supplied by the EPA Regional Administrator, to the extent that the information reported may be entered on the forms. Results of the Seep Monitoring and Management Plan shall be reported in a separate format, as specified in Section A.5 of the permit, and shall be submitted yearly to EPA.

Monitoring results obtained during the previous three (3) months shall be summarized for each month and submitted on forms to be supplied by the EPA Regional Administrator, to the extent that the information reported may be entered on the forms. Monitoring results obtained from sampling any discharge shall be entered directly on the DMR forms. In cases where No Discharge has occurred, monitoring results may be reported in narrative format due the large number (over 100) of outfalls permitted.

The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit. Unless otherwise specified, discharge flow shall be reported in terms of the average

flow over that 30 day period. These reports are due January 28, April 28, July 28, and October 28 of each year. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the following addresses:

NPDES Compliance Office
Environmental Protection Agency (WTR-1)
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3519

Navajo Nation Environmental Protection Agency
Navajo Nation EPA
P.O. Box 339
Window Rock, AZ 86515
Telephone: (928) 871-7185

Hopi Tribe Department of Natural Resources
Water Resources Office
P.O. Box 123
Kykotsmovi, AZ 86039
Telephone: (928) 734-2441

b. For effluent analyses, the permittee shall utilize an EPA-approved analytical method with a Method Detection Limit (MDL) that is lower than the effluent limitations (or lower than applicable water quality criteria if monitoring is required but no effluent limitations have been established.) MDL is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.

c. If all published MDLs are higher than the effluent limitations (or applicable criteria concentrations), the permittee shall utilize the EPA-approved analytical method with the lowest published MDL.

d. The permittee shall develop a Quality Assurance (QA) Manual/QA Plan. The purpose of the QA Manual is to assist in planning for the collection and analysis of samples and explaining data anomalies if they occur. As appropriate and applicable,

the QA Manual shall include the details enumerated below. The QA Manual shall be retained on the permittee's premises and be available for review by USEPA or Navajo Nation EPA upon request. The permittee shall review its QA Manual annually and revise it when appropriate. Throughout all field sampling and laboratory analyses, the permittee shall use quality assurance/quality control (QA/QC) procedures as documented in their QA Manual.

i. Project Management including roles and responsibilities of the participants; purpose of sample collection; matrix to be sampled; the analytes or compounds being measured; applicable technical, regulatory, or program-specific action criteria; personnel qualification requirements for collecting samples.

ii. Sample collection procedures; equipment used; the type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicatives, and equipment or field blanks); preservatives and holding times for the samples (see 40 CFR Part 136.3).

iii. Identification of the laboratory to be used to analyze the samples; provisions for any proficiency demonstration that will be required by the laboratory before or after contract award such as passing a performance evaluation sample; analytical method to be used; required QC results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.

iv. Discussion of how the permittee will perform data review and requirements for reporting of results to USEPA or Navajo Nation EPA to include resolving of data quality issues and identifying limitations on the use of the data.

e. Sample collection shall be performed as stated in the QA Manual. The QA Manual shall include a discussion on the preservation and handling, preparation and analysis of samples as described in the most recent edition of 40 CFR Part 136.3, unless otherwise specified in this permit.

2. Monitoring and Records

Records of monitoring information shall include:

a. Date, exact location, and time or sampling or measurements performed, preservatives used;
b. Individual(s) who performed the sampling or measurements;
c. Date(s) analyses were performed;
d. Laboratory(ies) which performed the analyses;
e. Analytical techniques or methods used;
f. Any comments, case narrative or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether they met project and 40 CFR Part 136 requirements. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times, and preservation.
g. Summary of data interpretation and any corrective action taken by the permittee.
h. Effluent limitations for analytes/compounds being analyzed.

3. Twenty Four-Hour Reporting of Noncompliance

The permittee shall report any non-compliance which may endanger human health or the environment. This information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the following persons or their offices:

CWA Compliance Office Manager
U.S. EPA Region 9
(415) 972-3577

Navajo Nation EPA
Attn: Patrick Antonio
(928) 871-7185

If the permittee is unsuccessful in contacting the persons above, the permittee shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

SECTION E. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to perform inspections under authority of Section 10: Inspection and Entry of the EPA Region 9 "Standard Federal NPDES Permit Conditions", dated June 3, 2002, as attached.

SECTION F. DEFINITIONS

The following definitions shall apply unless otherwise specified in the permit:

1. Discrete sample means any individual sample collected in less than 15 minutes.

2. Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharges over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that sampling day.

3. Daily average discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

4. Daily maximum concentration means the measurement made on any single discrete sample of composite sample.

5. Daily maximum mass limit means the highest allowable daily discharge by mass during any calendar day.

6. A composite sample means, for flow rate measurements, the arithmetic mean of no fewer than 4 individual measurements taken at equal intervals for one hour or for the duration of discharge, whichever is shorter. A composite sample means, for other than flow rate

measurements, a combination of 4 individual portions obtained at equal time intervals for 4 hours or for the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge flow.

7. A monthly or weekly average concentration limitation means the arithmetic mean of consecutive measurements made during a calendar month or weekly period, respectively.

8. A monthly or weekly average mass limitation means the total discharge by mass during a calendar monthly or weekly period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the monthly or weekly average value shall be determined by the summation of all the measured discharges by mass divided by the number of days during the monthly or weekly period when the measurements were made.

APPENDIX A – "Alkaline Mine Drainage"

Serial Number/ Outfall Number	Latitude Deg.Min.Sec.	Longitude Deg.Min.Sec.	Receiving Water
005/N5-A	36-31-15	110-24-45	Coal Mine Wash
008/N10-A1	36-32-45	110-22-30	Coal Mine Wash
010/J3-A	36-28-45	110-25-00	Coal Mine Wash Trib.
012/N6-E	36-30-30	110-25-15	Coal Mine Wash Trib.
013/N10-B	36-33-00	110-22-15	Coal Mine Wash Trib.
018/J3-D	36-28-15	110-24-00	Moenkopi Tributary
024/N14-F	36-30-30	110-18-30	Moenkopi Tributary
025/N14-G	36-30-30	110-18-15	Moenkopi Tributary
026/MW-A	36-27-30	110-23-45	Moenkopi Wash
027/MW-B	36-27-30	110-23-45	Moenkopi Wash
030/J16-D	36-30-00	110-18-30	Moenkopi Tributary
031/J16-E	36-30-00	110-18-30	Moenkopi Tributary
032/J16-F	36-30-00	110-18-45	Moenkopi Tributary
033/J16-G	36-29-45	110-19-00	Moenkopi Tributary
039/N14-H	36-30-45	110-17-30	Moenkopi Tributary
045/WW-6	36-30-00	110-22-15	Moenkopi Tributary
048/J7-G	36-25-00	110-24-15	Red Peak Valley
052/J7-K	36-24-30	110-23-00	Sagebrush Wash
069/J7-I	36-24-45	110-24-30	Yucca Flat Wash Trib.
070/J7-J	36-24-30	110-24-30	Yucca Flat Wash Trib.
071/J7-M	36-24-15	110-24-15	Yucca Flat Wash Trib.
079/J21-A	36-26-15	110-14-45	Dinnebito Wash
081/N1-O	36-32-00	110-24-00	Coal Mine Wash
082/N5-E	36-31-15	110-25-00	Coal Mine Wash
086/WW-4	36-26-45	110-24-45	Moenkopi Wash
087/WW-9	36-23-45	110-24-45	Yucca Flat Wash Trib.
088/WW-9A	36-23-45	110-24-45	Yucca Flat Wash Trib.
089/WW-9B	36-23-45	110-24-45	Yucca Flat Wash Trib.
090/WW-9C	36-24-15	110-24-30	Yucca Flat Wash Trib.
141/J3-F	36-28-00	110-25-15	Coal Mine Wash Trib.
142/J3-G	36-28-00	110-25-15	Coal Mine Wash Trib.
143/N7-D	36-32-30	110-25-45	Yellow Water Canyon Trib.
144/N7-E	36-32-30	110-25-30	Yellow Water Canyon
147/J7-A	36-25-30	110-23-30	Red Peak Valley
148/J21-C	36-26-00	110-15-30	Dinnebito Wash
150/N6-G	36-29-30	110-23-00	Coal Mine Wash
151/N6-H	36-29-30	110-23-00	Coal Mine Wash
153/N6-I	36-31-45	110-24-15	Coal Mine Wash
157/N6-J	36-31-45	110-24-00	Coal Mine Wash
159/N11-A	36-32-20	110-22-40	Coal Mine Wash
160/N11-C	36-32-25	110-22-35	Coal Mine Wash
161/N11-E	36-32-35	110-22-25	Coal Mine Wash
162/N11-G	36-32-30	110-21-40	Coal Mine Wash

APPENDIX A – "Alkaline Mine Drainage" - Continued

163/J7-B1	36-25-10	110-23-58	Red Peak Valley
164/N6-L	36-31-58	110-23-58	Coal Mine Wash
165/N6-M	36-32-12	110-23-27	Coal Mine Wash
168/N14-T	36-30-20	110-18-20	Moenkopi Tributary
169/J7-R	36-24-05	110-24-00	Moenkopi Tributary
170/J7-S	36-24-05	110-23-50	Yucca Flat Wash
171/J7-T	36-24-00	110-23-40	Yucca Flat Wash
172/J7-U	36-24-10	110-23-30	Yucca Flat Wash
173/J7-V	36-24-10	110-23-20	Yucca Flat Wash
176/J21-F	36-25-23	110-16-00	Dinnebito Wash
177/J21-G	36-24-44	110-16-40	Dinnebito Wash
178/J27-RC	36-27-08	110-23-02	Moenkopi Tributary
179/J7-JR	36-26-13	110-19-52	Red Peak Valley Wash
180/J19-A	36-27-28	110-19-24	Reed Valley Wash
181/J19-B	36-27-16	110-20-10	Red Peak Valley Wash
182/J19-D	36-26-50	110-19-55	Red Peak Valley Wash
183/J19-E	36-26-42	110-19-55	Red Peak Valley Wash
184/N9-A	36-34-49	110-23-56	Yellow Water Canyon
185/N9-B	36-33-49	110-24-13	Yellow Water Canyon
186/N9-C	36-33-23	110-24-49	Yellow Water Canyon
187/N9-D	36-33-18	110-25-02	Yellow Water Canyon
188/N9-E	36-32-56	110-25-24	Yellow Water Canyon
189/N9-F	36-32-44	110-25-31	Yellow Water Canyon
190/N9-G	36-33-27	110-25-51	Yazzie Wash
191/N9-H	36-33-58	110-25-46	Yazzie Wash
192/N9-I	36-34-13	110-25-32	Yazzie Wash
193/N9-J	36-34-25	110-25-24	Yazzie Wash
195/J21-H	36-24-29	110-17-04	Dinnebito Wash

APPENDIX B – "Coal Preparation & Associated Areas"

Serial Number/ Outfall Number	Latitude Deg.Min.Sec.	Longitude Deg.Min.Sec.	Receiving Water
001/N1-F	36-31-45	110-24-45	Coal Mine Wash
002/N1-L	36-31-45	110-24-15	Coal Mine Wash
003/N1-M	36-32-45	110-24-15	Coal Mine Wash
009/N10-C	36-32-00	110-24-00	Coal Mine Wash
014/N10-D	36-32-30	110-23-00	Coal Mine Wash Trib.
016/N12-C	36-32-15	110-23-15	Coal Mine Wash Trib.
017/BM-A1	36-26-30	110-24-00	Moenkopi Tributary
043/N14-Q	36-30-00	110-19-15	Moenkopi Tributary
047/J7-DAM	36-25-30	110-23-30	Red Peak Valley
054/N1-AC	36-32-00	110-25-45	Yellow Water Canyon
083/N5-F	36-31-15	110-25-00	Coal Mine Wash
094/N10-B1	36-33-00	110-22-15	Coal Mine Wash Trib.
095/KM-D	36-31-30	110-25-15	Coal Mine Wash Trib.
098/BM-SS	36-27-00	110-23-45	Moenkopi Tributary
099/J3-E	36-28-45	110-23-30	Moenkopi Tributary
103/N14-B	36-31-00	110-20-30	Moenkopi Tributary
104/N14-C	36-30-00	110-19-15	Moenkopi Tributary
105/BM-B	36-26-45	110-24-00	Moenkopi Tributary
106/KM-A3	36-31-45	110-26-00	Yellow Water Canyon
107/KM-B	36-31-30	110-26-00	Yellow Water Canyon
118/TPC-A	36-33-00	110-29-15	Long House Valley Trib.
126/TS-A	36-33-45	110-31-00	Klethla Valley
127/J16-A	36-30-00	110-18-15	Moenkopi Tributary
130/N14-P	36-31-00	110-20-30	Moenkopi Tributary
133/J16-L	36-30-45	110-19-30	Reed Valley
136/KM-TPB	36-31-15	110-28-00	Yellow Water Canyon Trib.
137/KM-TPB1	36-33-00	110-28-00	Yellow Water Canyon Trib.
139/KM-E	36-31-15	110-25-30	Coal Mine Wash Trib.
140/J2-A	36-29-00	110-25-45	Wild Ram Valley
149/J27-A	36-27-15	110-23-15	Moenkopi Tributary
152/TS-B	36-33-30	110-31-15	Klethla Valley
167/TPF-E	36-32-00	110-26-02	Yellow Water Canyon

APPENDIX C – "Western Alkaline Reclamation Areas"

Serial Number/ Outfall Number	Latitude Deg.Min.Sec.	Longitude Deg.Min.Sec.	Receiving Water
021/N6-C	36-29-30	110-22-45	Moenkopi Tributary
022/N6-D	36-29-15	110-23-00	Moenkopi Tributary
037/N6-F	36-30-45	110-22-30	Moenkopi Tributary
049/J7-CD	36-24-45	110-22-15	Sagebrush Wash
050/J7-E	36-24-45	110-22-30	Sagebrush Wash
051/J7-F	36-24-30	110-22-30	Sagebrush Wash
174/J21-D	36-25-39	110-15-37	Dinnebito Wash
175/J21-E	36-25-32	110-15-49	Dinnebito Wash