

Wyoming Department of Environmental Quality
Water Quality Division
NPDES Program

STATEMENT OF BASIS

RENEWAL

APPLICANT NAME: PacifiCorp

MAILING ADDRESS: 1591 Tank Farm Road Coal Co. Route
Glenrock, WY 82637-

FACILITY LOCATION: Dave Johnston Power Plant, which is located in T34N R77W, Converse County. The wastewater will be discharged to North Platte River (2AB).

PERMIT NUMBER: WY0003115

Background: PacifiCorp is the operator of the Dave Johnston Power Plant which is located near Glenrock, Wyoming. The plant is a large coal fired steam electric generating plant. The plant produces a variety of waste streams which are discharged to the North Platte River (Class 2AB water).

Changes From the Previous Permit:

Monitoring requirements for arsenic cadmium, chromium, lead, mercury and zinc for outfalls 007 and 008 are reduced from monthly to quarterly because of non-detectable test results over the previous five years of monitoring. Monitoring requirements for selenium remain at monthly. Historic self-monitoring data of the effluent for outfalls 007 and 008 indicate an exceedance of instream standards for selenium. Because of this, monthly total recoverable selenium monitoring is required upstream of the outfalls in the North Platte River, and of the influent to evaluate the impact that the facility may have on the selenium content of the river. This permit includes a four-year compliance schedule to allow a window of opportunity for the permittee to meet effluent limits for total recoverable selenium. However, depending on the results of the monitoring data, this permit may be modified to include a wasteload allocation based effluent limit on total recoverable selenium. The wasteload allocation, with the mass balance approach, utilizes the instream standard concentration, the upstream flow of the receiving stream, the maximum discharge volume, and the upstream concentration of the constituent to calculate the maximum allowable concentration of the constituent in the effluent.

Discharge during bromine and/or chlorine application must be to outfalls 003 and/or 006, the plant's recirculating canal, until the oxidant residual reaches zero.

Outfalls 001 through 006 and 021

Wastewater discharged from Outfalls 001 through 006 and 021 consists of condenser cooling water from generating units 1, 2, and 3. While each outfall represents a separate discharge to the North Platte River (Outfalls 001, 002, 004, 005, and 021) or the plant's recirculating canal (Outfalls 003 and 006), for the purpose of establishing effluent limits and monitoring requirements for this permit, these points are treated collectively.

The temperature of these discharges averages approximately 130° F which, combined with the high discharge flows (up to 200 MGD), causes very significant increases in the temperature of the North Platte River. However, in 1976, the company conducted a "316(a)" study to investigate the effect the discharge has on the river. The study successfully demonstrated to the DEQ/WQD, the Environmental Protection Agency, and the Wyoming Game and Fish that the increased temperature will not cause a threat to the "balanced indigenous population of the shellfish, fish, and wildlife" in the river. The plant was therefore granted a waiver from the state's in-stream water quality standards for temperature. Because of the consistency of the temperature of these discharges and the large volume of background data on the temperature of these discharges, monitoring for effluent temperatures is also not required. However, the permit does require routine in-stream monitoring for temperature.

The limits for these outfalls are based upon federal effluent guidelines for steam electric power plants and state water quality standards. Bromine and/or chlorine are used for biological control in the condensers. The permit contains effluent limits for the parameter "total residual oxidant" which measures the residual of both chlorine and bromine. The permit established a quantity limit for total residual oxidant of 1.84 kg/day and a concentration limit of 0.05 mg/l. These limits are identical to those established by the previous permit, and are based on 40 CFR Part 423, Steam Electric Power Generating Point Source Category.

Outfalls 007 and 008

Outfalls 007 and 008 are from two bottom ash settling ponds which also receives waste from various floor and surface (including coal pile) runoff drains that are located inside and outside of the plant, water treatment plant backwash water, effluent from the sewage treatment plant (Outfall 020), metal cleaning wastewater, and wet scrubber blowdown.

The permit establishes effluent limits for total suspended solids, total copper, and total iron that are based upon federal effluent guidelines, 40 CFR Part 423, Steam Electric Power Generating Point Source Category.. The permit also establishes limits for oil and grease and fecal coliform which are based upon Chapter 1 of the Wyoming Water Quality Rules and Regulations and are identical to the previous permit. Due to the significant dilution factor (the low flow of the river is approximately 400 cfs), it has been determined that it is not necessary to establish limits for ammonia. Monitoring for selenium, arsenic cadmium, chromium, lead, mercury and zinc have been included associated with these outfalls.

The permit sets an effluent limit for total recoverable selenium at 5 ug/l, based on aquatic life standards per Chapter 1, Wyoming Water Quality Rules and Regulations. This permit includes a four-year compliance schedule to allow a window of opportunity for the permittee to meet effluent limits for total recoverable selenium. However, based on the results of the monitoring data, this permit may be modified to include a wasteload allocation based effluent limit on total recoverable selenium. The wasteload allocation, with the mass balance approach, utilizes the instream standard concentration, the upstream flow of the receiving stream, the maximum discharge volume, and the upstream concentration of the constituent to calculate the maximum allowable concentration of the constituent in the effluent.

Outfall 011

This outfall is an emergency overflow from the sump which receives internal and external plant drainage and sewage from the treatment plant. Discharge from this outfall is authorized only under emergency conditions which must be immediately reported and monitored for quality and quantity.

Outfall 020

This outfall receives wastewater from the plant's sewage treatment plant. Effluent from the plant is routed to the ash settling ponds (Outfalls 007 and 008). The permit establishes an effluent limit for biological oxygen demand that is based upon National Secondary Treatment Standards. Monitoring and compliance with this limit occur before the effluent is discharged to the settling ponds.

Control of temperature in the North Platte River

The permit includes language requiring the temperature of the North Platte River to be monitored and discharges to the river to be controlled as follows. When the temperatures in the North Platte River at Hildebrand (approximately 10 miles downstream of the plant) are less than 64° F, the plant may discharge all of its once-through cooling water to the river. When the temperatures at Hildebrand are in the range of 64 to 71° F, the plant must operate at least one cooling tower pump. When the temperatures are in the range of 72 to 74° F, two cooling tower pumps must be in operation. When the temperature range is from 75 to 77° F, three pumps must be in operation. Finally, if the temperatures reach 78° F, all cooling water discharges to the river must be stopped.

Whole Effluent Toxicity

The permit contains whole effluent toxicity limits for Outfalls 001 through 008, and 021. On a quarterly basis, the effluent must be tested for acute toxicity.

ANTIDegradation, Impairment Review: The discharge of wastewater and the effluent limits that are established in this permit have been reviewed to ensure that the levels of water quality necessary to protect the designated uses of the receiving waters are maintained and protected. An antidegradation review has been conducted and verifies that the permit conditions, including the effluent limitations established, provide a level of protection to the receiving water consistent with the antidegradation provisions of Wyoming surface water quality standards. An evaluation has been completed to ensure that the receiving water has not been listed on the 303(d) list as a waterbody that cannot support designated uses. The evaluation has revealed that the receiving water is included on this list for selenium impairment for an unknown distance below Casper. In part, for this reason, the permit includes monitoring of the effluent at outfalls 007 and 008, influent, and upstream of the outfalls to further evaluate the selenium issue.

Self monitoring of effluent quality and quantity is required on a regular basis with reporting of results monthly. The permit is scheduled to expire on January 31, 2010.

Roland Peterson
Water Quality Division
Department of Environmental Quality
Drafted: December 3, 2004

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act,

Pacificorp

is authorized to discharge from the wastewater treatment facilities serving the

Dave Johnston Power Plant

located in

T34N R77W, Converse County

to receiving waters named

North Platte River (2AB)

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

This permit shall become effective on February 1, 2005


This permit and the authorization to discharge shall expire January 31, 2010 at midnight.



John F. Wagner, Administrator
Water Quality Division

1/26/05

Date



John V. Corra
Director - Department of Environmental Quality

1/27/05

Date

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning immediately and lasting through January 31, 2010, the permittee is authorized to discharge from outfall(s) serial number(s) **001, 002, 003, 004, 005, 006, and 021**.

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

FLOW

- a. There shall be no limitations on the quantity of water which may be discharged through Outfalls 001 through 006 and 021, except as provided for in Part I.B.1 of this permit.
- b. The combined flow of discharges 001 through 006 and 021 shall be monitored continuously and the daily maximum and monthly average values tabulated for each month shall be reported in accordance with Part I.C.2 of this permit. Flow volume shall be reported in millions of gallons per day (MGD).

TEMPERATURE

- a. There shall be no limitation on the temperature of water which may be discharged through Outfalls 001 through 006 and 021, except as provided for in Part I.B.1 of this permit.

TOTAL RESIDUAL OXIDANT

- a. The quantity of total residual bromine and chlorine (measured as total residual oxidant) discharged from the combination of Outfalls 001 through 006 and 021 shall not exceed 1.84 kilograms in any day nor shall the flow weighted concentration of the combination of Outfalls 001 through 006 and 021 exceed 0.05 mg/l of total residual oxidant at any time. The method of analysis shall be the amperometric titration described in Standard Methods for the Examination of Water and Wastewater.
- b. Total residual chlorine and/or bromine may not be discharge from any single generating unit for more than two hours per day.
- c. The waters making up Outfalls 001 through 006 and 021 shall be monitored for the flow weighted total residual bromine and chlorine concentration (measured as total residual oxidant in mg/l) and the flow weighted total residual bromine and chlorine quantity (measured as total residual oxidant in kg/day). Each day that bromine and/or chlorine is applied, calculations shall be made from recordings of the following:
 - (1) The flow volumes through the generating units and the cooling tower.
 - (2) The total residual oxidant concentration of the water from the treated units. Monitoring must begin no later than four minutes after treatment of the units begins and must be repeated at four minute intervals until the oxidant residual reaches zero. The highest total residual oxidant concentration measured shall be the value used to calculate the quantity of total residual oxidant discharged.
 - (3) Length of time a total residual oxidant concentration greater than zero was measured during each treatment cycle.
- d. The maximum, average and minimum flow weighted quantities and concentrations recorded during the month shall be reported in accordance with Part I.C.2 of this permit.
- e. The permittee shall maintain written records of the values described in item a through d above and shall provide such records to the permit issuing agency upon request.

- f. Discharge during bromine and/or chlorine application until the oxidant residual reaches zero must be to outfalls 003 and/or 006, the side channel, in the event of an upset.

There shall be no discharge of floating solids or foam in other than trace amounts. Nor shall the discharge have a visible sheen or cause formation of a visible sheen or visible deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring or damage to stream banks, stream beds, ditches or other waters of the state at the point of discharge. Discharges shall not occur in such a manner that will result in violations of Water Quality Rules and Regulations, Chapter 1, Section 15.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the outfall from the final treatment unit and prior to admixture with diluent water or the receiving stream.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. **INTERIM EFFLUENT LIMITS:** During the period beginning immediately and lasting through January 31, 2009, the permittee is authorized to discharge from outfall(s) serial number(s) **007 and 008**.

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		
	<u>mg/l</u> <u>Monthly</u> <u>Average</u>	<u>mg/l</u> <u>Weekly</u> <u>Average</u>	<u>mg/l</u> <u>Daily</u> <u>Maximum</u>
Total Suspended Solids, mg/l	30	N/A	100
Oil and Grease, mg/l	N/A	N/A	10
Total Copper, mg/l	N/A	N/A	1.0
Total Iron, mg/l	N/A	N/A	1.0
Fecal Coliform, #/100 ml	1,000	2,000	4,000

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units in any single grab sample.

There shall be no discharge of floating solids or foam in other than trace amounts. Nor shall the discharge have a visible sheen or cause formation of a visible sheen or visible deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring or damage to stream banks, stream beds, ditches or other waters of the state at the point of discharge. Discharges shall not occur in such a manner that will result in violations of Water Quality Rules and Regulations, Chapter 1, Section 15.

FINAL EFFLUENT LIMIS: During the period beginning February 1, 2009 and lasting through January 31, 2010, the permittee is authorized to discharge from outfall(s) serial number(s) 007 and 008.

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		
	<u>mg/l</u> <u>Monthly</u> <u>Average</u>	<u>mg/l</u> <u>Weekly</u> <u>Average</u>	<u>mg/l</u> <u>Daily</u> <u>Maximum</u>
Total Suspended Solids, mg/l	30	N/A	100
Oil and Grease, mg/l	N/A	N/A	10
Total Copper, mg/l	N/A	N/A	1.0
Total Iron, mg/l	N/A	N/A	1.0
Fecal Coliform, #/100 ml	1,000	2,000	4,000
Total Recoverable Selenium, ug/l	NA	NA	5*

*This value is express in terms of total recoverable metal in the water column.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units in any single grab sample.

There shall be no discharge of floating solids or foam in other than trace amounts. Nor shall the discharge have a visible sheen or cause formation of a visible sheen or visible deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring or damage to stream banks, stream beds, ditches or other waters of the state at the point of discharge. Discharges shall not occur in such a manner that will result in violations of Water Quality Rules and Regulations, Chapter 1, Section 15.

Monitoring Requirements

<u>Effluent Characteristic</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow - MGD	Weekly	Instantaneous
Oil and Grease	Continuous	Visible sheen
Total Suspended Solids	Weekly	Grab
pH	Weekly	Grab
Total Copper	Monthly	Grab
Total Iron	Monthly	Grab
Fecal Coliform	Monthly	Grab
Selenium*, ug/l (influent)	Weekly	Grab
Selenium*, ug/l (at outfall)	Weekly	Grab
Selenium*, ug/l (in the North Platte River, upstream of outfall)	Weekly	Grab
Dissolved Cadmium**, ug/l	Quarterly	Grab
Dissolved Chromium**, ug/l	Quarterly	Grab
Dissolved Lead**, ug/l	Quarterly	Grab
Dissolved Mercury**, ug/l	Quarterly	Grab
Dissolved Zinc**, ug/l	Quarterly	Grab

*This value is express in terms of total recoverable metal in the water column. Detection limit for total recoverable selenium must be 2 ug/l or less.

**Monitoring is required for the acid soluble portion which is derived as the portion that will pass through a 0.45 µm membrane filter following acidification of the sample to pH of 1.5 - 2.0 with nitric acid.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the outfall from the final treatment unit and prior

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning immediately and lasting through January 31, 2010, the permittee is authorized to discharge from outfall(s) serial number(s) 011, only during emergency breakdown* of the plant's wastewater system sump pumps.

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

<u>Monitoring Requirements</u>		
<u>Effluent Characteristic</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow - MGD	Daily when discharging	Instantaneous
Oil and Grease	Daily when discharging	Grab
Total Suspended Solids	Daily when discharging	Grab
pH	Daily when discharging	Grab

The permittee shall maintain stand-by pumping capacity and power at this location.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Prior to admixture with the North Platte River or other diluent water.

* Whenever discharge from point 011 occurs, the permittee shall immediately inform this department of the discharge. The permittee shall submit to this department a written description of the reasons for the discharge and actions taken to minimize the possibility of future discharges, and include such description with the discharge monitoring report for the corresponding month.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning immediately and lasting through January 31, 2010, the permittee is authorized to discharge from outfall(s) serial number(s) 020.

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		
	<u>mg/l Monthly Average</u>	<u>mg/l Weekly Average</u>	<u>mg/l Daily Maximum</u>
Biochemical Oxygen Demand, mg/l	30	45	90

There shall be no discharge of floating solids or foam in other than trace amounts. Nor shall the discharge have a visible sheen or cause formation of a visible sheen or visible deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring or damage to stream banks, stream beds, ditches or other waters of the state at the point of discharge. Discharges shall not occur in such a manner that will result in violations of Water Quality Rules and Regulations, Chapter 1, Section 15.

<u>Effluent Characteristic</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Biochemical Oxygen Demand, mg/l	Monthly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the outfall from the final treatment unit and prior to admixture with diluent water or the receiving stream.

B. SPECIAL CONDITIONS

1. Operation of Cooling Tower Serving Generating Units 1, 2, and 3.
 - a. The operational steps described below shall be used after the daily maximum water temperature at Hildebrand rises to 64° F or higher for three consecutive days and shall continue until the daily maximum water temperature at Hildebrand drops below 64° F for three consecutive days.
 - b. When the temperature of the North Platte River at Hildebrand is less than 64° F, the cooling tower is not required to be in operation.
 - c. When the temperature of the North Platte River at Hildebrand is in the range of 64° F to 71° F, at least one cooling tower pumps must be operating at full capacity.
 - d. When the temperature of the North Platte River at Hildebrand is in the range of 72 to 74° F, at least two cooling tower pumps must be operating at full capacity.
 - e. When the temperature of the North Platte River at Hildebrand is in the range of 75° F to 77° F, at least three cooling tower pumps must be operating at full capacity.
 - f. When the temperature of the North Platte River at Hildebrand is greater than 78° F, there may be no discharge of cooling water to the river.
2. Operation of the Dam
 - a. The dam across the North Platte River shall be operated so as to insure that the turbidity in the river below the dam is not more than 15 nephelometric turbidity units (NTUs) higher than the turbidity in the river above the dam.
 - b. The permittee shall monitor the turbidity in the North Platte River at the Western most point on the inlet structure (above the dam) and off the outfall structure for the point 021 discharge (downstream of the dam). At a minimum, samples shall be taken at these locations on Monday, Wednesday, and Friday of each week. The readings shall be tabulated and submitted to the permit issuing authority in accordance with the schedule provided in Part I.C.2 of this permit.
3. Exemption from Temperature Limitations
 - a. Based upon analysis of a biological study prepared by the permittee under authority granted by Section 316(a) of the Clean Water Act, the Wyoming Department of Environmental Quality, Water Quality Division and the U.S. Environmental Protection Agency hereby grant the permittee an exemption from the "temperature" section of Wyoming Water Quality Rules and Regulations, Chapter One.
 - b. The above exemption may be withdrawn or modified shall the permittee make changes in operation which would tend to increase the volume or temperature of the discharge above the levels presented in the permittee's 316(a) study for this facility, which was dated June 1976. However, it is recognized that the duration and timing of the condition presented in the 316(a) study will change from year to year, depending on the electric power demand and unit outages.
4. Operation of the In-stream Temperature Recorder

Effective immediately, the permittee shall monitor the temperature of the North Platte River at Hildebrand, Wyoming, on a continuous basis. The permittee shall operate and maintain telemetry or other equipment necessary to ensure that river temperature at Hildebrand can be read instantaneously and recorded at the Dave Johnston Plant. The records resulting from this monitoring shall be maintained in accordance with Part I.C.7 of this permit and, upon request, shall be submitted to the this department and the U.S. Environmental Protection Agency and shall be submitted to the Wyoming Game and Fish Department on a monthly basis.

5. Notification of High Temperature

Whenever water temperature in the North Platte River at Hildebrand reached 78° F, the permittee shall immediately contact this department and the Wyoming Game and Fish Department and shall confirm that no once through cooling water is being discharged.

6. Polychlorinated Biphenyl (PCB) Compounds

There shall be no discharge or release of polychlorinated biphenyl (PCB) compounds, such as those commonly used for transformer fluid, to surface water of the State of Wyoming.

7. Description of Outfalls

001 through 006 and 021 - These outfalls consist of condenser cooling water for generating units 1, 2, and 3.

007 and 008 - These outfalls are from the two bottom ash settling ponds.

011 - This outfall is an emergency overflow to the North Platte River from the sump which collects water from floor and surface drains located inside and outside of the plant.

020 - This outfall is from the domestic sewage treatment plant. The point of discharge is the outfall from the plant prior to dilution by other waste streams.

8. Priority Pollutants

a. With the exception of total chromium and total zinc, the main cooling tower blowdown and the service water cooling tower blowdown shall contain no detectable amounts of the 126 priority pollutants (40 CFR Part 423, Appendix A) due to chemicals added for cooling tower maintenance.

b. Upon request of the permit issuing agency, the permittee shall provide evidence of compliance with item a above using either of the following methods;

(1) By engineering calculations which demonstrate that the regulated pollutants are not detectable in the cooling tower blowdown by the analytical methods in 40 CFR Part 136. These calculations must be based on the cooling tower blowdown only and shall not include dilution by any other effluent streams. A list of the certified analytical contents of all biofouling and maintenance formulation (manufacturer's certifications to contents and priority pollutant status) shall be submitted along with the engineering calculations.

(2) By monitoring the cooling tower blowdown for the 126 priority pollutants.

9. Effluent Limitations (Toxic Pollutants)

Effective the first quarter of calendar year 2005, there shall be no acute toxicity in the discharge from outfall numbers 001 through 008, and 021.

10. Whole Effluent Testing

Starting in the first quarter of calendar year 2005, the permittee shall, at least once each calendar quarter, conduct acute static replacement toxicity tests on a composite sample of the discharges. Quarterly samples shall be collected on a two (2) day progression; i.e., if the first quarterly sample is on a Monday, during the next quarter, sampling shall begin on a Wednesday, etc.

The replacement static toxicity tests shall be conducted in accordance with the procedures set out in the latest revision of "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms", EPA/600/4-90/027F (Rev. August 1993) and the "Region VIII EPA NPDES Acute Test Conditions - Static Renewal Whole Effluent Toxicity Tests". In the case of conflicts, the Region VIII Document will prevail. The permittee shall conduct an acute 48-hour static toxicity test using *Ceriodaphnia dubia* and an acute 96-hour static toxicity test using *Pimephales promelas*.

Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. If more than 10 percent control mortality occurs, the test is not valid. The test shall be repeated until satisfactory control survival is achieved.

If acute toxicity occurs, an additional test shall be conducted within two (2) weeks of the date of when the permittee learned of the test failure. If only one species fails, retesting may be limited to this species. Should acute toxicity occur in the second test, testing shall occur once a month until further notified by the permit issuing authority.

Quarterly test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the calendar quarter ending March 31, shall be reported with the DMR due April 28, with the remaining reports submitted with DMRs due each July 28, October 28 and January 28). Monthly test results shall be reported along with the DMR submitted for that month. The format for the report shall be consistent with the latest revision of the "Region VIII Guidance for Acute Whole Effluent Reporting", and shall include all chemical and physical data as specified.

If the results for four consecutive quarters of testing indicate no acute toxicity, the permittee may request the permit issuing authority to allow a reduction to quarterly acute toxicity testing on only one species on an alternating basis. The permit issuing authority may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

11. Toxicity Reduction Evaluation (TRE)
Toxicity Identification Evaluation (TIE)

Should acute toxicity and/or chronic toxicity be detected in the permittee's discharge, a TIE-TRE shall be undertaken by the permittee to establish the cause of the toxicity, locate the source(s) of the toxicity, and develop control of, or treatment for the toxicity. Failure to initiate, or conduct an adequate TIE-TRE, or delays in the conduct of such tests, shall not be considered a justification for noncompliance with the whole effluent toxicity limits contained in Part I.B.9. of this permit. A TRE plan needs to be submitted to the permitting authority within 45 days after confirmation of the continuance of effluent toxicity.

12. Chronic Toxicity Limitation-Reopener Provision

This permit may be reopened and modified (following proper administrative procedures) to include chronic whole effluent toxicity limitations if any other information or data are developed indicating that chronic whole effluent toxicity limits are needed as required under 40 CFR 122.44 (d). Also see Part IV.P. of this permit for additional whole effluent toxicity reopener provisions.

If acceptable to the permit issuing authority, and if in conformance with current regulations, this permit may be reopened and modified to incorporate TRE conclusions relating to additional numerical limitations, a modified compliance schedule, and or modified whole effluent protocol.

90010.doc

C. COMPLIANCE SCHEDULE, Selenium Standards.

By February 1, 2009, this facility must meet the selenium effluent limit of 5 ug/l at outfall 007 and 008. However, based on the results of the monitoring data, this permit may be modified to include a wasteload allocation based effluent limit on selenium. The wasteload allocation, with the mass balance approach, utilizes the instream standard concentration, the upstream flow of the receiving stream, the maximum discharge volume, and the upstream concentration of the constituent to calculate the maximum allowable concentration of the constituent in the effluent.

D. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by, the permit issuing authority.

2. Reporting

Effluent monitoring results obtained during the previous three month(s) shall be summarized and reported on a Discharge Monitoring Report Form. If the permit requires whole effluent toxicity (WET) (biomonitoring) testing, WET test results must be reported on the most recent version of EPA Region VIII's Guidance for Whole Effluent Reporting. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements (see Part II.A.11.), and submitted to the state water pollution control agency at the following addresses postmarked no later than the 28th day of the month following the completed reporting period. The first report is due April 28, 2005.

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002
Telephone: (307) 777-7781

If no discharge occurs during the reporting period, "no discharge" shall be reported. If discharge is intermittent during the reporting period, sampling shall be done while the facility is discharging.

3. Definitions

Concentration Values

- a. Daily Maximum (mg/l) - The highest single reading from any grab or composite sample collected during the reporting period.
- b. Monthly Average (mg/l) - The arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during a calendar month.
- c. Weekly Average (mg/l) - The arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during any week. A week begins at 12:01 a.m. Sunday morning and ends at 12:00 midnight Saturday evening.

Quantity Values

- d. Daily Maximum - The highest single daily quantity reading (see Calculations below) recorded during the reporting period.
- e. Monthly Average - The arithmetic mean (geometric mean in the case of fecal coliform bacteria) of all the daily quantity readings (see Calculations below) recorded during a calendar month.
- f. Weekly Average - The arithmetic mean (geometric mean in the case of fecal coliform bacteria) of all the daily quantity readings (see Calculations below) recorded during a week. A week begins at 12:01 a.m. Sunday morning and ends at 12:00 midnight Saturday evening.

Flow Values

- g. Daily Flow - The flow volume recorded on any single day. The daily flow volume may be determined by using an instantaneous reading (if authorized by this permit) or a continuous recorder.
- h. Daily Maximum Flow - The highest single daily flow reading recorded during a reporting period.
- i. Monthly Average Flow - The arithmetic mean of all daily flow values recorded during a calendar month.
- j. Weekly Average Flow - The arithmetic mean of all daily flow values recorded during a week. A week begins at 12:01 am on Sunday morning and ends at 12:00 midnight Saturday evening.

Calculations

- k. Daily Quantity (kg/day) - The quantity, in kilograms per day, of pollutant discharged on a single day. The Daily quantity shall be calculated by multiplying the composite or grab sample concentration value for that day in milligrams/liter (mg/l) times the flow volume (in millions of gallons per day - MGD) for that day times 3.78. If a flow volume reading for the day the sample is collected is not available, the average flow volume reading for the entire reporting period shall be used.
- l. Daily Quantity (#/day) - The quantity, in number per day, of bacteria or other pollutants discharged on a single day. The number per day shall be calculated by multiplying the composite or grab sample result for that day, in number per 100 milliliters (#/100 ml), times the flow volume (in millions of gallons per day - MGD) times 3.78×10^7 . If a flow volume reading for the day the sample is collected is not available, the average flow volume reading for the entire reporting period shall be used.

- m. Geometric Mean - Calculated in accordance with the procedure described in the most recent edition of "Standard Methods for the Examination of Water and Wastewater".

Miscellaneous

- n. A "composite" sample, for monitoring requirements, is defined as a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
- o. An "instantaneous" measurement for monitoring requirements is defined as a single reading, measurement, or observation.
- p. "MGD", for monitoring requirements, is defined as million gallons per day.
- q. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.
- r. A "pollutant" is any substance or substances which, if allowed to enter surface waters of the state, causes or threatens to cause pollution as defined in the Wyoming Environmental Quality Act, Section 35-11-103.

4. Test Procedures

Test procedures for the analysis of pollutants, collection of samples, sample containers, sample preservation, and holding times, shall conform to regulations published pursuant to 40 CFR, Part 136, unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses and collected the samples;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the administrator at any time. Data collected on site, copies of Discharge Monitoring Reports and a copy of this NPDES permit must be maintained on site during the duration of activity at the permitted location.

8. Penalties for Tampering

The Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or both.

9. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

10. Location of Discharge Points

Outfall 001	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 002,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 003,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 004,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 005,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 006,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 007,	SW, Section 7, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 008,	NW, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 011,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 020,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).
Outfall 021,	NE, Section 18, Township 33 North, Range 74 West, Converse County. Receiving Waters :North Platte River (2AB).

83440-doc
08/02

PART IIA. MANAGEMENT REQUIREMENTS1. Changes

The permittee shall give notice to the administrator of the Water Quality Division as soon as possible of any physical alterations or additions to the permitted facility. Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29 (b); or
- b. The alteration or addition could change the nature or increase the quantity of pollutants discharged.

2. Noncompliance Notification

- a. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. The permittee shall report any noncompliance which may endanger health or the environment as soon as possible, but no later than 24 hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Quality Division, Wyoming Department of Environmental Quality at (307) 777-7781.
- c. A written submission shall be provided within five (5) days of the time that the permittee becomes aware of a noncompliance circumstance as described in paragraph b. above.

The written submission shall contain:

- (1) A description of the noncompliance and its cause;
 - (2) The period of noncompliance, including exact dates and times;
 - (3) The estimated time noncompliance is expected to continue if it has not been corrected; and
 - (4) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.
- d. The following occurrences of unanticipated noncompliance shall be reported by telephone to the Water Quality Division, Watershed Management Section, NPDES Program (307) 777-7781 by the first workday following the day the permittee became aware of the circumstances.
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - (2) Any upset which exceeds any effluent limitation in the permit; or
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
 - e. The administrator of the Water Quality Division may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Quality Division, Watershed Management Section, NPDES Program (307) 777-7781.

- f. The permittee shall report all instances of noncompliance that have not been specifically addressed in any part of this permit at the time the monitoring reports are due.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypass of Treatment Facilities

- a. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- b. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c. and d. of this section. Return of removed substances to the discharge stream shall not be considered a bypass under the provisions of this paragraph.
- c. Notice:
- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice at least 60 days before the date of the bypass.
 - (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.A.2.
- d. Prohibition of bypass.
- (1) Bypass is prohibited and the administrator of the Water Quality Division may take enforcement action against a permittee for a bypass, unless:
 - (a) The bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

