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December 1, 2006

CERTIFIED MAIL
(Return Receipt Requested)

Mr. Dave Shaver
UtahAmerican Energy, Inc.
P.O. Box 1077
Price, UT 84501

Dear Mr. Shaver:

Subject: Salinity Offset Program for UPDES Permit Nos. UT0024368-Crandall Canyon Mine, UT0025640 - West Ridge Mine, and UT0025674 - Centennial Project Mines.

We are in receipt of your plan entitled, *"Colorado River Salinity Offset Program Participation Plan, UtahAmerican Energy, Inc."* dated November 14, 2006 (copy attached). We appreciate your efforts to incorporate our comments and submit in a timely manner this program plan, which includes an example "TDS Tracking Spreadsheet" for tracking the salinity offset credits.

We understand that this example tracking spreadsheet may be modified in the future, as requested by either party, to better facilitate our common goals of accurately accounting for the salinity offset credits during the UPDES permit cycles.

As stated in Part I.D.1.b/ of the UPDES permits referenced above, this Salinity Offset Program Participation Plan will be appended to the respective UPDES permits as appropriate and, along with all of the requirements, conditions and limitations of the existing permits, are in full force and effect.

Please continue your efforts towards finalizing the "Funding Agreement" which will further formalize your commitment to this Salinity Offset Program Participation Plan.

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DIV. OF OIL, GAS & MINING

If you have any questions with regards to this matter, please contact Jeff Studenka of this office at (801) 538-6779 or by e-mail at jstudenka@utah.gov.

Sincerely,

Utah Water Quality Board

Walter L. Baker, P.E.
Executive Secretary

WLB: JAS: st

Enclosure

cc (w/encl): Qian Zhang, EPA Region VIII
Claron Bjork, SE Utah District Health Department
Dave Ariotti, DEQ District Engineer
Pam Grubaugh-Littig, Division of Oil Gas & Mines
Mark Quilter, Utah Department of Agriculture and Food
Robert King, Division of Water Resources

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Colorado River Salinity Offset Program Participation Plan
UtahAmerican Energy, Inc.

Introduction

UtahAmerican Energy, Inc. (U.E.I.), through its Utah subsidiaries, operates three coal facilities that hold active Utah Pollutant Discharge Elimination System (UPDES) Individual Permits for discharging intercepted groundwater and/or storm water runoff to waters of the State. The UPDES permit program is operated by the Utah Department of Environmental Quality's Division of Water Quality (DWQ). Because the receiving waters for all of these facilities are ultimately tributary to the Colorado River, the UPDES permits also incorporate Colorado River Basin Salinity Control Forum (CRBSCF) salinity standards and relevant implementation policies.

The three UtahAmerican Energy facilities are: the Genwal Resources, Inc. Crandall Canyon Mine, the West Ridge Resources, Inc. West Ridge Mine, and the Andalex Resources, Inc. Centennial Project. The Crandall Canyon Mine and West Ridge Mine are co-owned by U.E.I. (50%) and Intermountain Power Agency (50%), and operated by U.E.I through its Utah subsidiaries. The Centennial Project includes the co-located Aberdeen and Pinnacle mines, and is totally owned by U.E.I. and operated by Andalex Resources, Inc., a wholly-owned subsidiary of U.E.I. The three UPDES Individual Permits for these facilities are listed below.

FACILITY	UPDES PERMIT No.	RECEIVING WATER
Crandall Canyon Mine	UT0024368	Crandall Creek
West Ridge Mine	UT0025640	C Canyon ephemeral drainage
Centennial Project	UT0025674	Deadman Canyon Creek

Each of these three permits incorporates a CRBSCF requirement that limits salt load to less than one ton/day. Salt load is a function of the quantity (rate) of water discharged and its total dissolved solids (TDS) concentration. All water that has been discharged historically at the U.E.I. mines is groundwater that has been intercepted during mining. This groundwater must be pumped out of mine workings in order to maintain a safe and viable mine operation. (Although permitted discharge outfalls are also in place at each facility to discharge storm water runoff, they have never been used because all runoff has been stored in sediment retention ponds located upstream of the outfalls.) As will be discussed later, the one ton/day salt load limit has become difficult to meet at these mines.

DWQ and the CRBSCF recognize that neither the quantity nor quality of groundwater intercepted by mines can be easily controlled. They also recognize that discharging intercepted groundwater is a different situation than discharging many other industrial wastewaters. One of the CRBSCF implementation policies that applies to intercepted groundwater is to allow salt offset. The DWQ administers a Colorado River Salinity Offset Program wherein salinity credits can be purchased as offsets against UPDES-permitted discharges. This program enables mines

to continue to operate when salt load limits cannot be met. The Individual UPDES permits for all three facilities stipulate that if the TDS load limit cannot be met, participation in the Offset Program must be pursued.

Therefore, UtahAmerican Energy Inc. plans to participate in the program by funding a salinity offset project. This will generate TDS credits so that mine operations can continue. To initiate this process, U.E.I. representatives and DWQ staff met on June 6, 2006 to discuss the Offset Program requirements. The following information describes how U.E.I. proposes to meet those requirements.

Discharge History

The Salinity Offset Program operates on a ton-for-ton basis. This means that offset needs (over and above the allowable one ton/day) must be estimated for each facility using existing or projected discharge rate and TDS concentration data. Each of the three facilities and their discharge history is briefly described below.

Crandall Canyon Mine

The Crandall Canyon Mine began operation in the early 1990s. The mine is covered by an individual UPDES Permit (#UT0024368), and the current permit term is December 1, 2005 to November 30, 2010. There are two permitted discharge outfalls for this facility: Outfall 001 is located immediately downstream from the sediment pond that collects all surface runoff from the mine surface facilities; and Outfall 002 collects and discharges intercepted groundwater from several underground sumps in various locations of the underground mine. Outfall 001 has never discharged. Outfall 002 has essentially discharged continuously for the past 10 years. Both outfalls discharge into Crandall Creek, which is tributary to Huntington Creek in the San Rafael River Basin.

Since January 2000, average monthly discharges have ranged from about 135 gallons per minute (gpm) to about 940 gpm, with an average of about 580 gpm. Over that time period, though there have been some fluctuations in flow, as expressed by the range, there has been no trend toward either increasing or decreasing flows.

TDS of the groundwater intercepted by the Crandall Canyon Mine has averaged about 440 mg/L since January 2000, but in the last few years, has often been in the mid-500 mg/L range. Under the UPDES permit terms, there is no TDS load limit in effect during months when the average monthly TDS is 500 mg/L or less. During the past year, about half of the months were less than 500 mg/L and half were greater than 500 mg/L.

When TDS is greater than 500 mg/L, the one ton/day salt load limit is typically exceeded by Crandall Canyon's discharge.

West Ridge Mine

The West Ridge Mine has been operating since 1999. Originally, the mine was covered by the *UPDES General Permit for Coal Mine Discharges*. Currently, it is covered under an individual UPDES Permit (#UT0025640), with a permit term from May 1, 2006 through April 30, 2011. There are two permitted discharges for this facility: Outfall 001 is located immediately downstream from the sediment pond that collects all surface runoff from the mine surface facilities; and Outfall 002 collects and discharges intercepted groundwater from an underground sump located within the mine. Outfall 001 has never discharged. Outfall 002 has essentially discharged continuously since January 2002. The receiving stream for these discharges is an ephemeral channel in C Canyon, which is tributary to Grassy Trail Creek in the Price River Basin.

When discharge first began at West Ridge, flows were minimal and sporadic. They soon became continuous, and have continued to increase. They appear to be leveling off, however, at an average rate of about 700 gpm.

Groundwater intercepted by the West Ridge Mine contains much higher dissolved solids than does the Crandall Canyon Mine. This is a typical difference between groundwater found in the Wasatch Plateau and that found in the Book Cliffs. TDS has averaged about 1,300 mg/L since January 2003, however it has recently trended upward.

Due to both increased discharge rates and increased TDS concentrations, this mine has also had difficulties meeting the one ton/day salt load limit. This made it necessary to obtain an individual UPDES Permit rather than continue coverage under the *General Permit*.

Centennial Project

The Centennial Project Mines (Pinnacle and Aberdeen mines) have been operating since 1980. Throughout that time, four discharge outfalls have been covered under a *UPDES General Permit for Coal Mine Discharges* (No. UTG040008), which expires on April 30, 2008. Outfalls 001 and 003 are located downstream of sediment ponds that collect runoff generated by the surface facilities. Neither of these outfalls has ever discharged. Outfall 002 releases any discharge from the Pinnacle Mine, which has only occurred during one month in the last several years, and it is not expected to occur again in the near future. Discharge from the Aberdeen Mine is released via Outfall 004. Though discharge occurred only sporadically for many years, recently it has become more frequent and requires release at greater rates.

Receiving water for these outfalls is the ephemeral channel in Deadman Canyon. Deadman Creek enters Hayes Wash, which is tributary to the Price River.

The trend of increasing discharge rates is expected to continue in the near future. While recent flows have averaged about 350 gpm, the rate is expected to double over the next several years. Further, the duration of discharge during any given 24-hour period has increased over time, and is expected to approach continuous discharge in the very near future. TDS concentrations of the groundwater intercepted at this location have averaged about 1,990 mg/L since 2005, though the recent trend has been downward.

Increasing flow rates have made the one ton/day salt load limit difficult to meet at the Centennial Project. In the future, even if the more recent lower TDS concentrations continue, the increased flow rates will still cause the load limit to be exceeded. Thus, U.E.I. has submitted an application to DWQ requesting coverage under an individual UPDES Permit. That pending permit has been given a UPDES number of UT0025674, and is expected to become effective in December 2006.

Offset Plan Elements

U.E.I., after discussions with DWQ staff, proposes to participate in the Salinity Offset Program by contributing monies to the state's special revenue Salinity Offset Fund. This alternative has been chosen over the other potential mechanism for obtaining salt offset credits – that of designing, constructing, and implementing an offset project. Funds provided by U.E.I will be used to finance salinity reduction projects that will be administered by the Utah Department of Agriculture and Food. Sufficient funds will be provided to result in a ton-for-ton salt reduction.

There are three steps to determine the funding amount that U.E.I. must provide:

1) U.E.I. must **estimate the salt load** it will add to receiving waters in excess of the allowable one ton/day.

2) DWQ will use various numeric formulas and published figures (including basin-specific efficiency ratios and leaching fractions), factoring in amortization, engineering uncertainty, and administrative costs, to **determine a current, project-specific salinity removal cost**.

3) Numbers generated during the first two steps will then dictate the **total sum** that U.E.I. will need to contribute to the Offset Fund.

In deriving the estimate for the first step, U.E.I. has assumed the following:

- The historical discharge rates and TDS concentrations at the facilities are a reasonable predictor of future load needs. The future load estimates are generally based upon the historical averages, while also considering more recent trends.

- All three facilities will participate jointly in the Salinity Offset project. The total combined salt credits needed will be purchased jointly, and used as a common "bank". The bank will be depleted by each facility according to its need.

- U.E.I. will purchase a sufficient amount of salt credits to cover an assumed five year life-of-mine at each operation. While the mines may have sufficient reserves to last more than five years, coal mining economic considerations mean that actual mine life is unpredictable. Five years follows a UPDES permit term,

and is a reasonable projection of offset need. (Should offset credits be depleted before five years, U.E.I. would need to initiate participation in the Offset Program anew.)

The following table shows the predicted salt load derivation at each facility. It also shows a calculated net total salt offset needed of 11.9 tons/day (after the allowable one ton/day/facility is subtracted). Over a five year period, this results in a total amount of 21,721 tons of salt credits that U.E.I. will need to purchase.

FACILITY	ASSUMED FUTURE AVERAGE FLOW RATE (gpm)	ASSUMED FUTURE AVERAGE TDS CONCENTRATION (mg/L)	CALCULATED AVERAGE DAILY SALT LOAD (tons/day)
Crandall Canyon Mine	600	400	1.44
West Ridge Mine	700	1,450	6.10
Centennial Project	700	1,750	7.36
		Total Salt Load	14.90
		Net Total of Salt Offset Needed*	11.90

*(after subtraction of allowable one ton/day/facility)

The unit costs that DWQ will assess to U.E.I. will vary according to the salinity-control unit in which the discharges are located. All three facilities are in the Upper Colorado River Basin's Price-San Rafael Unit, but they occur within two different sub-units, with different efficiency ratios. The Crandall Canyon Mine is within the San-Rafael unit, and the remaining two facilities are in the Price unit.

Plan Monitoring Schedule

In addition to the routine monitoring and reporting via Discharge Monitoring Reports (DMRs) that is currently required for each of the UPDES permits, U.E.I. will also need to closely track its use of the banked salt credits. The basis for this tracking will be the average daily TDS load for each month, which is reported as tons per day on the monthly DMRs. In addition to each of the three facilities submitting their individual DMRs each month, U.E.I. will submit a tracking spreadsheet to DWQ each month. The spreadsheet will be similar to the one attached to this plan. It will include an accounting of the salt credits used by each facility for the current month; a cumulative, running total of salt credits depleted up to and including the current month; and a record of the remaining available salt credits.

The tracking spreadsheet will be evaluated regularly by U.E.I. and by DWQ as it will be an attachment to the monthly DMR forms for each facility, which are to be submitted by the 28th of

each month. U.E.I. and DWQ will review on at least an annual basis beginning in Quarter 1 2008, the salt credits used to date vs. the remaining salt credits available. When and if remaining available salt credits begin to run low, a renewed assessment of future salt credit needed by U.E.I. will be undertaken. This will be done in a timely manner to ensure that there is sufficient time to prepare and obtain approval for a new or updated Salinity Offset Program Participation Plan prior to complete depletion of the available credits. U.E.I. understands that the cost of any additional needed credits will be based upon cost data in effect at the time, which is likely to be greater than the cost basis for credits purchased under this current plan. Further, implicit in the current plan is the assumption that, while the best possible estimates were used to derive a total five-year credit need, actual use of the purchased salt credits cannot be predicted exactly. Credits may be depleted at a faster or slower rate than has been assumed. U.E.I. understands that any credits that are purchased, but remain unused, will not be reimbursed.

Program Costs and Payment Schedule

The total cost for U.E.I. to participate in the Salinity Offset Program by purchasing 21,721 tons of salt offset credits is estimated to be approximately $836,264, based upon published 2005 average costs.

U.E.I. will contribute this dollar amount to the state's special revenue Salinity Offset Fund based upon the terms set forth in a Funding Agreement to be developed by U.E.I. and DWQ.

UtahAmerican Energy, Inc.
Salinity Offset Program

TDS Tracking Spreadsheet*

Month/Year	Average Daily TDS Load (tons)					TDS Credits Used (tons)		Available TDS Credits (tons)	Percentage of Fund Remaining
	Crandall Canyon[1]	West Ridge[2]	Centennial Project[3]	Total	Net Total[4]	Current Month	Cumulative		
					Initial Number of TDS Credits Purchased			21,721	100.00%
Aug-08	2.7	6.2	8.2	17.1	14.1	437	437	21,284	98.0%
Sep-08	1.6	6.1	7.8	15.5	12.5	375	812	20,909	96.3%
Oct-08	0.8	7.9	7.9	16.6	13.6	422	1,234	20,487	94.3%
Nov-08	2.5	8.1	7.1	17.7	14.7	441	1,675	20,046	92.3%
Dec-08	3	5.6	8	16.6	13.6	422	2,096	19,625	90.3%
Jan-09	1.6	3.2	6	10.8	7.8	242	2,338	19,383	89.2%
Feb-09	etc.								
Mar-09									
Apr-09									

Notes:
1: Load obtained from DMRs for UPDES Permit #UT0024368
2: Load obtained from DMRs for UPDES Permit #UT0025640
3: Load obtained from DMRs for UPDES Permit #UT0025674
4: After subtraction of 1 ton/day from each of the three facilities

***All numbers in table are hypothetical and used only to show example calculations**

Crandall Canyon offset begins Feb. 1, 2006, West Ridge and Centennial offsets begin May 1, 2006.