



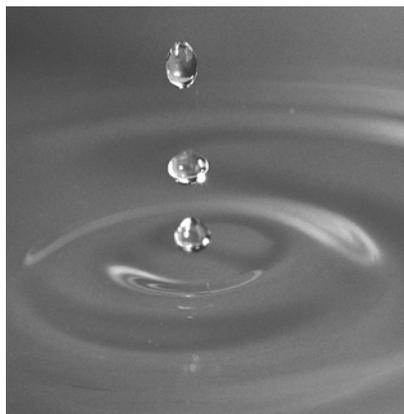
Geotechnical
Environmental and
Water Resources
Engineering

**Comments On:
Specific Site Assessment for
Coal Ash Impoundments at
PacifiCorp Energy
Jim Bridger Power Station
Point of Rocks, Wyoming**

Submitted to:
Lockheed-Martin Corporation
2890 Wood Bridge Avenue
Building 209 BAYF
Edison, NJ 08837

Submitted by:
GEI Consultants, Inc.
6950 South Potomac Street, Suite 300
Centennial, CO 80112

July 2009
Project 091330



Stephen G. Brown, P.E.
Senior Project Manager

EPA's Comments

From: "Killeen, Deborah A" <deborah.a.killeen@lmco.com>
To: "Stephen G. Brown" <sbrown@geiconsultants.com>
CC: "Miller, Dennis A" <dennis.a.miller@lmco.com>, <Hoffman.Stephen@epamail...>
Date: 7/22/2009 7:57 AM
Subject: FW: No Comments on GEI's Draft Assessment Report for: PacifiCorp Energy - Jim Bridger Power Station

Good Morning Stephen,

EPA has no comments on GEI's Draft Assessment Report for: PacifiCorp Energy - Jim Bridger Power Station.

Deborah A Killeen
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State's Comments

No Comments were received from the State for the PacifiCorp Jim Bridger Power Station.

PacifiCorp's Comments

Jim Bridger Plant
P.O. Box 158
Point of Rocks, WY 82942



August 31, 2009

Stephen Hoffman
Office of Resource Conservation and Recovery (5304P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

Subject: PacifiCorp comments regarding the draft Site Assessment for Coal Ash Impoundments at PacifiCorp Energy Jim Bridger Facility, project 091330.

To Whom It May Concern

On August 25, 2009, PacifiCorp Energy received a request to review and comment on the draft Site Assessment for Coal Ash Impoundments at the PacifiCorp Energy Jim Bridger Facility. The site assessment was conducted on June 9-10, 2009, by EPA representatives and GEI Consultants to evaluate the safety of two coal combustion waste impoundments at the plant.

The comments below constitute PacifiCorp's response to specific findings or recommendations within the draft report:

Section 6.2.3 Downstream Slope (FGD Pond 1), third paragraph – Referring to FGD Pond 1, the report states that vegetation should be removed from the downstream slope and toe berm of the dam to facilitate visual inspection of the dam and to prevent roots from penetrating the dam.

PacifiCorp Response: FGD Pond 1 is no longer in operation, and is currently undergoing closure, following the specifications of an approved closure plan. The approved plan specifies that the site be capped with a soil cover, then "seeded with native plant species to promote transpiration and return the site to a natural state." In addition to grasses, forbs, and other native shrubs; sagebrush is one of the shrubs specifically included in the seed mixture used to seed the area. The growth of native plants is essential in reducing erosion to the cap of the closed impoundment.

Section 6.3.2 Upstream Slope (FGD Pond 2), first paragraph – The report states that pipes had been cut because of problems with freezing. Liquid from the pipes caused erosion to the embankment.

PacifiCorp Response: The pipes have been replaced or repaired. Erosion to the embankment will be repaired.

Section 6.3.2 Upstream Slope, second paragraph – The report recommends addressing erosion within FGD Pond 2 by discharging the effluent at multiple points within the pond.

PacifiCorp Response: Moving the location of the discharge points within the impoundment structure is not feasible. PacifiCorp is investigating other means of controlling erosion at the point of discharge. Furthermore, PacifiCorp does not believe the erosion presents a structural safety issue, as this erosion was factored into the impoundment design. Wave action is controlled by limited free liquid in pond, and progressive erosion is prevented by deposition of combustion waste solids.

Section 6.3.3 Downstream Slope and Toe (FGD Pond 2), first paragraph – The report indicates a 24 inch culvert needs to be removed or abandoned by grouting.

PacifiCorp Response: The culvert will be removed or grouted.

Section 7.4.2 FGD Pond 2, entire section – The report indicates that GEI was unable to reproduce the factors of safety calculated in the 2001 Design Report for the impoundment.

PacifiCorp Response: A geotechnical firm will be contracted to confirm the factors of safety analysis calculated in the 2001 Design Report.

Section 7.6.1 FGD Pond 2, fourth paragraph – The report states that a filter compatibility evaluation was not included in the design report for the material beneath the upstream and downstream shells of the dam.

PacifiCorp's Response: PacifiCorp will investigate to determine if an evaluation was completed.

Section 8.2.3 Dam Break Analysis, entire section – The report indicates that a dam break analysis has not been completed on either impoundment, and that a breach flood may overtop I-80 with high potential for loss of life.

PacifiCorp Response: FGD Pond 1 is not in operation and is undergoing closure following an approved closure plan. A dam break analysis will not provide useful information as the impoundment has been dewatered. PacifiCorp intends to investigate the possibility of conducting a dam break analysis for FGD Pond 2. The potential for high loss of life due to a breach flood from FGD Pond 2 is highly unlikely due to the operational capacities of the pond, limited amount of free liquid in pond, and the distance of the impoundment from the interstate.

Section 11.1.3 Embankment Settlement at Station 54+00, entire section – The report states that the embankment in this area should be observed on a three month basis for the first year, then annually.

PacifiCorp Response: PacifiCorp is incorporating this area into a formal inspection procedure for the impoundment.

Section 11.2, Adequacy of Maintenance and Surveillance, entire section – The report indicates that maintenance and surveillance of both impoundments is acceptable, except for instrumentation and vegetation. It also indicates that a formalized inspection process should be implemented.

PacifiCorp Response: As noted previously, FGD Pond 1 is undergoing closure and will be capped and seeded with native grasses, forbs, and shrubs - including sagebrush – as specified by the approved closure plan. The growth of native species will not be controlled, but encouraged to promote transpiration, and to inhibit erosion of the cover. The outboard faces of the existing impoundments are incorporated into the future cap, as such; removal of vegetation is not desirable. Furthermore, as the pond is dewatered and will remain dewatered there is no compelling reason to remove vegetation from impoundments.

A formalized inspection process will be implemented for FGD pond 2 based on the recommendations of this site assessment, and site assessments commissioned and completed by PacifiCorp. The formal inspection process will incorporate existing manual monitoring methods as appropriate for an impoundment with an expected lifespan of 30 years.

Section 12.1.1, FGD Pond 1, entire section – The report states that erosion protection should be provided for FGD Pond 1 to protect Dike B from large, rare flood events.

PacifiCorp Response: The existing overflow is sufficient to contain overtopping of FGD Pond 1. The capacity of FGD Pond 2 is adequate to contain a 100 year flood event.

Section 12.1.2, item two – The report recommends restricting vehicle traffic and upgrading the crest on the FGD Pond 2 embankment to protect against vehicle ruts.

PacifiCorp Response: The crest has been repaired.

Section 12.1.2, item three – The report recommends a surveyed crest monument at Station 54+00 to monitor settlement at that location.

PacifiCorp Response: PacifiCorp believes that a surveyed crest monument is an excessive measure at this site, and that it would be difficult to maintain due to vehicle traffic and maintenance in this area. Visual inspections as part of a formal inspection process are adequate to monitor conditions at this location.

Section 12.2 Corrective Measures Required for Maintenance and Surveillance Procedures, item 2 – The report recommends the monitoring and repair of surface and wave erosion of FGD Pond 2.

PacifiCorp Response: Areas of significant erosion will be monitored and repaired as necessary. The wave erosion or wave cutting at the inundation level will be self-correcting and anticipated due to the infilling of waste solids as the impoundment is operated.

Section 12.2 Corrective Measures Required for Maintenance and Surveillance Procedures, item 4 – The report recommends documentation of inspections, using a checklist for consistency.

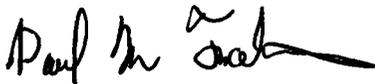
PacifiCorp Response: As mentioned previously, a formalized inspection process will be implemented for FGD Pond 2 based on the recommendations of this site assessment, and site assessments commissioned and completed by PacifiCorp.

Section 12.4 Any New or Additional Monitoring Instruments, Periodic Observations, or Other Methods of Monitoring Project Works or Conditions That May Be Required, item 1 – The report recommends the installation of instrumentation to monitor the performance of the dikes and dams.

PacifiCorp Response: PacifiCorp believes that instrumentation for the dikes and dams of FGD Pond 2 are unwarranted. FGD Pond 2 has a projected facility life of 30 years, and is operated in such a manner that less than 2 feet of free liquid exists in the pond during use. If the pond were filled to capacity with free liquids, the use of instrumentation may be valid. Current and planned inspection and monitoring procedures will be sufficient for monitoring the structural stability of the dikes and dams at this impoundment.

Prior to EPA's site assessment, PacifiCorp contracted with a firm specializing in dams and complex geotechnical studies to do an evaluation of the Jim Bridger plant coal combustion waste impoundments. Using data from those investigations, PacifiCorp will be conducting additional geotechnical studies, and implementing comprehensive inspection procedures as necessary. PacifiCorp is committed to responsible environmental stewardship and safety at each of its facilities.

Sincerely,



Paul M. Fahlsing
Manager of Engineering and Environmental
(On behalf of Bob Arambel, Managing Director)

cc: Bob Arambel
Mike Jenkins
Bill Lawson
Brett Shakespear