Bjornsen, Alan

From: Barley, William H <WHB6@pge.com>
Sent: Saturday, May 24, 2014 10:54 AM
To: Bjornsen, Alan
Cc: Sharp, Loren; Sokolsky, David; Albers, John P; Smith, Mark G (HBPP); Strehlow, Michael; Salmon, James; Kristofzski, John G; Rod, Kerry; Barron, Tricia A.
Subject: Questions
Attachments: NRC Questions answers for review.docx

Alan, sorry it has taken this long to get these answers back to you. There was a diverse group of personnel providing input to the questions and the coordination took longer than expected. Please let me know if you have any further questions once you have reviewed the responses.

Thanks, Bill

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1. HBPP is eligible for the National Register of Historic Places: a) What are SHPO's comments?; b) Did SHPO allow for it dismantlement?
    - In 2010, PG&E prepared a mitigation plan that fulfills the Condition of Certification CUL-10 for demolition of Units 1, 2, and 3 for the Humboldt Bay Generating Station California Energy Commission (CEC) license. This plan mitigates for the demolition of Units 1, 2, and 3. The plant site, composed of two gas-oil fired steam turbine units with one of the nation's first commercial nuclear powered generators, served the Humboldt load pocket, a region of electrical demand that is somewhat isolated from the remainder of the California grid. In 2003, PAR Environmental Services evaluated Unit 3 and recommended that it appeared to meet the criteria for listing in the National Register of Historic Places at a national level of significance. The State of California's Office of Historic Preservation concurred in this assessment. This evaluation did not include Units 1 and 2. Later it was determined that the three units should be considered as a complex, and that mitigation measures should be developed for the complex as a whole. CEC Condition CUL-10 required that a Mitigation Plan be prepared for the demolition work to assure that the adverse effects / negative impacts caused by the demolition would be mitigated. The mitigation plan ended up including Historic American Engineering records (HAER); an illustrated history book; interpretive panels; and donation of archives and artifacts to the Clark Museum in Eureka.

2. What are PG&E's records for review of cultural sites before the construction of Unit 3?
    - Although there were no records for cultural site review prior to construction of units 1, 2 or 3 due to their construction before requirements, significant cultural review and oversight for cultural artifacts were implemented for ISFSI and HBGS construction. Further, excavation work plans for decommissioning include cessation of work should cultural artifacts be encountered to allow for investigation and documentation.

3. Were any radioactive gases, liquids, or solid wastes released during the operation of Unit 3?
    - There were routine effluent releases during both operation and since cessation of operation in accordance with NRC effluent regulations for both gaseous and liquid effluents. Solid radioactive waste was sent to permitted radioactive burial sites. The HBPP LTP Chapter 3 provides the effluent release data as well as the waste volumes and activity content by year. The historical site assessment as part of the license termination plan contains documentation for past leaks and spills on site as well as site radiological characterization data used for planning remediation and MARSSIM surveys.

4. What has PG&E done to insure that direct radiation from Unit 3 is well below applicable limits?
    - Refueling building shielding and restrictions to personnel in the area outside the building are considered for high radioactivity work. Dose rates on radioactive material stored in outside areas is minimized. To the extent possible, waste is shipped in an expeditious manner to maintain site doses ALARA. The restricted area fence lines are routinely surveyed and continuously monitored by environmental TLDs. This data is used to demonstrate that all members of the public in the controlled area receive less than 100 mrem in the calendar year. Additional TLDs are used to monitor for potential doses to the unrestricted area to demonstrate compliance with 40CFR190.

5. What actions are being taken by PG&E to give the expectation that radiological impacts will remain within Regulatory limits?
    - Dose rates in outside areas are monitored as radioactive material is moved around site. Work on significantly contaminated equipment is performed with HEPA filtered ventilation spaces with particulate effluent monitoring. Once radiological conditions are sufficiently reduced, structures are released for open air demolition. During the demolition process, dust and silica control measures are used that further reduce the potential for any radiological concerns. Temporary and continuous particulate environmental air monitors are used to verify adequacy of controls employed. In the evaluation contained within the LTP License Amendment Request, dated May 3, 2013, Section 6.0(3)(iii) PG&E committed to maintain annual exposures to onsite and offsite personnel ALARA.

6. Has PG&E identified a landfill site where the LLRW and demolition debris will be taken?
    - Waste for the Unit 3 "footprint" will be sent to either the Energy Solutions Part 61 burial site in Utah or through the HBPP 10CFR20.2002 exemption to the U. S. Ecology burial site in Idaho. Some amount of B and C level wastes has been sent to the WCS burial site in Texas. Waste from outside the Unit 3 "footprint" may be radiologically cleared and sent for disposal in class 2 landfill sites within the state of California. Waste from outside of the Unit 3 footprint that contains licensed radionuclides would be designated to be sent to either the Utah or Idaho burial sites.

7. Has PG&E implemented any enhanced security measures (in the case of terrorism), and emergency planning that could mitigate a potential terrorist attack?
    - PG&E has implemented orders for protection of the spent fuel and greater than class C material stored in the ISFSI. Additionally for Unit 3, PG&E is in compliance with 10CFR37 requirements for protection of radioactive materials.

8. Are there any potential conflicts that could arise with the HBGS?
    - Work on site is coordinated with HBGS to control impacts to the generation equipment and electrical switchyard. Potential impacts are factored into the HBPP work plans to minimize the impacts to HBGS. HBPP Unit 3 License Condition C.4 requires a Cross Contamination Prevention and Monitoring Plan to maintain validity of the final status surveys performed beneath the HBGS.

9. Does the CA DTSC require anything different than the NRC in overseeing site investigations?
    - The CA DTSC has remained focused on the non-radiological remediation of the HBPP site. From the non-radiological contamination standpoint, the site remediation is to that of an industrial site since PG&E will continue to use the site for electric operations. CA DTSC has agreed to allow for NRC lead in the radiological remediation of the site as delineated in the submitted license termination plan.

10. When was the Humboldt County grading permit received?
    - We have received several permits from Humboldt County for the site. As work progresses onsite in each particular area, grading permits are obtained for all grading/excavation activities that will move more than 50 cubic yards of material (gross). Grading permits, demolition permits and building permits all fall under the jurisdiction of Humboldt County Building Department thus all of these permits are considered "building" permits. As demolition work continues, we expect more grading and demolition permits to be obtained. Here is a table of the approved Humboldt County Building, Demolition and Grading permits from 2012 to now.

Humboldt Bay Power Plant
APN: 305-131-035

Humboldt County Building, Demolition and Grading Permits
2012 to Present
B-Building, D-Demolition, E-Electrical, PH-Preassembled Housing, X-Grading and Excavation

Permit #	Issued	Description	Responsible
12-227-X-4	3/16/2012	Unit 3 Circulation Pipe Removal	PG&E
12-296-X-4	4/5/2012	Count Room Parking Lot Grading	PG&E
12-600-X-4	6/26/2012	Demolish Existing Foundations and Regrade Site	PG&E
12-812-B-4	8/23/2012	New WMS Bldg and Associated Grading	PG&E
12-848-X-4	8/31/2012	60kV Switchyard Grading Permit	ABB
12-905-B-4	9/17/2012	Install GIS Building (60kV Switchyard)	ABB
12-908-PH-4	9/17/2012	Install 60kV MPAC Building	ABB
12-907-B-4	9/17/2012	Construct Battery Building (60kV Switchyard)	ABB
12-813-X-4	8/23/2012	60kV Switchyard Utility Removal	ABB
12-960-X-4	9/27/2012	GWTS Grading	PG&E
13-111-D-4	7/29/2013	Turbine Building Demolition	Kiewit
13-607-E-4	6/14/2013	Install fire monitoring station GIS Building	ABB
13-975-PH-4	9/10/2013	New Office Trailer (Count Room Parking Lot)	PG&E
13-1196-B-4	10/30/2013	New Warehouse/office trailer	PG&E
14-398-D-4	4/11/2014	WP-01/41 Hot machine Shop Building Demolition and Below Grade Excavation	CB&I
14-399-X-4	4/11/2014	WP-26 Unit 2 Demolition	CB&I
14-400-D-4	4/11/2014	Oily Water Separator Demolition	CB&I

11. When was the City of Eureka Pretreatment Permit issued for the discharge into Elk River WWTP?
    - HBPP has an existing Special Sewer Discharge Permit with Humboldt Community Services District (HCSD), issued 5/4/10, and effective for 5 years. It was confirmed that all HCSD wastewater (including any from HBPP) is delivered to the Elk River WWTP. There is an interagency agreement governing this arrangement between HCSD and Elk River. Additionally, PG&E had a permit issued by City of Eureka Public Works on April 17, 2012 that expired on April 17, 2014 to transport holding tank wastewater directly to the Elk River WWTP.

12. The ACOE Permit Application for the Intake and Discharge Canal Remediation Project lists a number of permits in Section 5 that may be required. Have they been applied for?
    - In Section 5 of the section 404 permit application, supplement indicates that the permit for the ACOE has been sent and is expecting the permit as soon as NMFS consultation is complete. See question number 10 concerning the grading permit.

Agency	**Permit**	**Status**
US Army Corps of Engineers	Clean Water Act Section 404 Individual Permit	Applied for - Expecting permit as soon as NMFS consultation complete
National Marine Fisheries Service and U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 Consultations	USFWS consultation complete - NMFS pending
Advisory Council on Historic Preservation/State Historic Preservation Office	National Historic Preservation Act Section 106 Consultation	Completed
California Coastal Commission	Coastal Development Permit for construction in the coastal zone	Permit received
North Coast Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Permit received
Humboldt Bay Harbor, Recreation, and Conservation District	Harbor District Permit for construction on the shore of Humboldt Bay	Permit received
Humboldt County	Grading Permit	Unknown (contractor scope)