CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

January 20, 2009

Doug Wheeler
Vice President
GWF Energy LLC
4300 Railroad Avenue
Pittsburg, CA 94565

Dear Mr. Wheeler,

HANFORD ENERGY PARK PEAKER AMENDMENT FOR CONVERSION TO GWF HANFORD COMBINED-CYCLE POWER PLANT (01-EP-7) DATA REQUESTS, ROUND 3

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to more fully understand the modifications proposed in the amendment petition filed on October 1, 2008 by GWF Energy, LLC, project owner, for the proposed Hanford Combined-Cycle Power Plant Project. These requests are in addition to the first round of data requests, No.s 1-11, sent to GWF on December 9, 2008, and the second round of data requests, No.s 12-22, sent to GWF on December 22, 2008.

Specifically, the requested information will assist Energy Commission staff to determine whether implementation of the proposed modifications will: 1) allow the GWF Hanford Combined-Cycle Power Plant to operate in a safe, efficient and reliable manner, 2) comply with applicable laws, ordinances, and regulations, or 2) result in significant environmental impacts.

This 3rd set of data requests is being made in the area of Soil & Water Resources. Written responses to the enclosed data requests are due to the Energy Commission staff on or before February 20, 2009 or at such later date as may be mutually agreed.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to both Commissioner Jeffrey Byron, Presiding Siting Committee Member for the Hanford Energy Park Peaker Amendment Petition, and to me, within 20 days of receipt of this letter.

The notification must contain the reasons for not providing the information, the need for additional time, and the grounds for any objections (see Title 20, California Code of Regulations, section 1716).

If you have any questions, please call me at (916) 651-2935 or E-mail me at mtrask@energy.state.ca.us.

Sincerely,

Mathew M. Trask

Digitally signed by Mathew M. Trask
DN: cn=Mathew M. Trask, o=Mathew Trask and Associates, ou, email=m_trask@yahoo.com, c=US
Date: 2009.11.09 14:05:45 -08'00'

Mathew Trask
Amendment Project Manager
Energy Facility Siting Division

Enclosures

GWF Hanford Combined Cycle Power Plant (01-EP-7)
Data Requests, Round 3

Project Name: Hanford Energy Peaker Plant
Docket No. 01-EP-7
Technical Area: Soils and Water Resources
Authors: Mark Lindley & Setenay Bozkurt

PROJECT BACKGROUND

GWF Energy LLC (GWF) proposes to modify the existing Hanford Energy Peaker Plant (HEPP) by converting the facility from a nominal 95-megawatt (MW) simple-cycle power plant into a combined-cycle power plant with a nominal generating capacity of 120 MW net (GWF Hanford). HEPP was constructed in the town of Hanford, in Kings County, and has been operating as a peaker plant to provide critical peak energy.

The primary modifications related to Soil and Water Resources that were identified in the proposed amendment include the following:

1. Increase in water consumption of approximately 8 AFY for the once-through steam generators (OTSG) feed water makeup and the lube oil cooler makeup;
2. Addition of a new water treatment skid for boiler makeup water;
3. Modification of the wastewater treatment system to optimize water supply requirements and minimize off-site wastewater disposal;
4. Modifications to the storm water drainage collection systems;
5. Expansion of the existing storm water retention basin for storm water management. The new basin will be larger than the existing basin by approximately 1,200 cubic yards. Excavated material from the retention basin will be retained onsite and incorporated into final facility grading;
6. Temporary disturbance of about 5.2 acres for construction laydown;
7. Addition of an Air Cooled Condenser (ACC) for system heat rejection; and,
8. Use of a Wet Surface Air Cooler (WSAC) when temperatures exceed 88 °F.

WATER SUPPLY

The current HEPP water usage is approximately 103 AFY. GWF Hanford, with the two OTSGs and the STG lube oil cooler, will require approximately 111 AFY. During construction, the applicant estimates that water use will average about 1,000 gallons per day and a maximum of up to 6,000 gallons per day will be required. During the 5-month construction period, total construction water use is estimated to be less than 0.5 acre-feet for dust control, and flushing and testing of the water treatment system and OTSGs.

The current HEPP water supply is provided by groundwater pumped and treated at the adjacent Hanford LP cogeneration facility. Groundwater use is authorized under an existing Banking Agreement with the Kings County Water District. The use of groundwater is mitigated through a GWF-sponsored groundwater recharge program that requires a 1:1 ratio of water used to groundwater banking credit. GWF established a water purchase agreement with Angiola Water District that allowed banking at 1.76:1 ratio to allow for drought protection.

Staff understands that the City of Hanford sanitary sewer treatment facility is about 1.2 miles from the GWF Hanford project site. This facility may be able to provide recycled water for some or all of the project's operational and construction water supply.

DATA REQUESTS

23. Please provide a monthly summary of water use for the existing HEPP. Please include hours of operation, power delivered, and water use for each year of operation. Please breakdown water use data for steam cycle makeup, gas turbine SPRINT, evaporative inlet cooling, emission controls, turbine wash water, and service water.

24. Please provide a detailed discussion regarding the availability and feasibility of utilizing an alternative source of water such as agricultural wastewater or recycled water from the City of Hanford's sanitary sewer treatment facility to provide the additional annual water supply required for GWF Hanford as compared to the most recent full year of operation ("as-operated" conditions).

25. Please provide a detailed discussion and (back up) supporting information for construction water supply estimates.

STORMWATER

The existing HEPP stormwater retention basin will be expanded to accommodate GWF Hanford. The new basin will be expanded by approximately 1,200 cubic yards. With the exception of the expanded retention basin, stormwater management practices remain unchanged from those included in the original HEPP license. The stormwater retention basin is sized to capture and detain the runoff resulting from a 100-year 10-day rainfall event. All runoff will be either infiltrated to the subsurface or evaporated, hence no stormwater discharges will be released to surface waters or to the surrounding ground surface.

Infiltration of stormwater generated at the project site is an ideal BMP to control runoff and protect downstream properties from flooding and water quality impacts. However, infiltration BMPs can lead to significant groundwater quality impacts if the stormwater discharged to a stormwater retention/infiltration pond is impacted by toxic constituents.

DATA REQUEST

26. Please provide a draft Drainage Erosion and Sediment Control Plan (DESCP) containing elements A through I below outlining site management activities and erosion/sediment control BMPs to be implemented during site mobilization, excavation/demolition, construction, and post-construction activities. The level of detail in the draft DESCP should be commensurate with the current level of planning for site grading and drainage. Please provide all conceptual erosion

control information for those phases of construction and post-construction that have been developed or provide a statement when such information will be available. The DESCP may be combined with the Stormwater Pollution Prevention Plan required by the Regional Water Quality Control Board to limit the need for the project to develop separate stormwater management plans.

A. **Vicinity Map** – A map(s) at a minimum scale 1”=100’ shall be provided indicating the location of all project elements (construction site, laydown area, pipelines, etc.) with depictions of all significant geographic features including swales, storm drains, and sensitive areas.

B. **Site Delineation** – All areas subject to soil disturbance for the CGS (project site, laydown area, all linear facilities, landscaping areas, and any other project elements) shall be delineated showing boundary lines of all construction/demolition areas and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.

C. **Watercourses and Critical Areas** – The DESCP shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches. Indicate the proximity of those features to the CGS construction, laydown, and landscape areas and all transmission and pipeline construction corridors.

D. **Drainage Map** – The DESCP shall provide a topographic site map(s) at a minimum scale 1”=100’ showing all existing, interim and proposed drainage systems and drainage area boundaries. On the map, spot elevations are required where relatively flat conditions exist. The spot elevations and contours shall be extended off-site for a minimum distance of 100 feet in flat terrain.

E. **Drainage of Project Site Narrative** – The DESCP shall include a narrative of the drainage measures to be taken to protect the site and downstream facilities. The narrative should include the summary pages from the hydraulic analysis prepared by a professional engineer/erosion control specialist. The narrative shall state the watershed size(s) in acres that was used in the calculation of drainage measures. The hydraulic analysis should be used to support the selection of BMPs and structural controls to divert off-site and on-site drainage around or through the CGS construction and laydown areas.

F. **Clearing and Grading Plans** – The DESCP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections or other means. The locations of any disposal areas, fills, or other special features will also be shown. Illustrate existing and proposed topography tying in proposed contours with existing topography.

G. **Clearing and Grading Narrative** – The DESCP shall include a table with the quantities of material excavated or filled for the site and all project elements of the CGS project (project site, lay down area, transmission corridors, and pipeline corridors) whether such excavations or fill is temporary or permanent, and the amount of such material to be imported or exported.

H. **Best Management Practices Plan** – The DESCP shall identify on the topographic site map(s) the location of the site specific BMPs to be employed during each phase of construction (initial grading/demolition, project element excavation and construction, and final grading/stabilization). BMPs shall include measures designed to prevent wind and water erosion.

I. **Best Management Practices Narrative** – The DESCP shall show the location (as identified in H above), timing, and maintenance schedule of all erosion and sediment control BMPs to be used prior to initial grading, during all project element (site, pipelines, etc.) excavations and construction, final grading/stabilization, and post-construction. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule should include post-construction maintenance of structural control BMPs, or a statement provided when such information will be available.

27. Please provide hydrologic design calculations for the proposed stormwater retention basin, including estimates of the 100-year 10-day runoff volume, retention basin stage-volume relationship, infiltration rates, and estimated residence time of water in the pond for average conditions (California Stormwater Quality Association (QASQA) Water Quality Volume), as well as during the 10-day, 100-year storm event. Please include details on soil characteristics such as infiltration capacity in the analysis of basin drawdown.

28. Please provide a summary of stormwater quality sample results measurements, collected during the history of HEPP. Please include specifics of the on-site sampling events and concentration of storm water contaminants.