

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov



December 10, 2009

DOCKET**09-AFC-1**DATE DEC 10 2009RECD DEC 10 2009

Mr. Ross Metersky
BP Alternative Energy NA Inc.
700 Louisiana Street, 12th Floor
Houston, Texas 77002

**RE: WATSON COGENERATION ELECTRIC AND STEAM RELIABILITY PROJECT
(BP Watson) (09-AFC-1)
DATA REQUEST SET 2 (#s 40-48)**

Dear Mr. Metersky:

Pursuant to Title 20, California Code of Regulations, Section 1716, the California Energy Commission staff seeks the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This set of data requests (#s 40-48) is being made in the area of Soil and Water Resources. A proposed Condition of Certification has been included to start discussion between the Applicant and staff. Written responses to the enclosed data requests are due to the Energy Commission staff on or before January 7, 2010, or at such later date as may be mutually agreeable.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to both the Committee and me within 20 days of receipt of this notice. The notification must contain the reasons for not providing the information, and the grounds for any objections (see Title 20, California Code of Regulations, Section 1716 (f)).

If you have any questions, please call me at (916) 653-8236 or email me at asolomon@energy.state.ca.us. Kevin Le of the Siting project management staff is working with me on this project. He is also available to respond to questions at (916) 651-2902 or by email at kle@energy.state.ca.us.

Sincerely,

Alan Solomon
Project Manager

Enclosure

PROOF OF SERVICE (REVISED 09/23/09) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 12/10/09

TG

Technical Area: Soils and Water Resources
Authors: Mark Lindley, P.E.

BACKGROUND

At the Data Response and Issue Resolution Workshop on October 14, 2009, a member of the public expressed concern about past water discharge violations that may have occurred at the Watson Cogeneration Facility (Facility). Staff was not aware of any historic or pending water related violations and would like more information to determine if there have been violations associated with any of the water treatment and discharge systems shared between the BP Watson refinery and the proposed fifth train.

DATA REQUESTS

40.
 - A. Please provide all notices of stormwater or wastewater discharge violations for the discharge streams that the proposed fifth train would contribute to including the refinery's oily/water treatment system and clean water system.
 - B. If there have been discharge violations associated with the oily/water treatment system or clean water system, please provide a detailed discussion of the nature of the violations and what changes to the treatment systems were required to prevent continued or additional violations in the future.
41. If violations related to the oily/water treatment system or clean water system are currently pending, please describe the current discharge violations and the proposed changes to the treatment systems required to address the violations.

BACKGROUND

Watson proposes to utilize tertiary-treated recycled water for evaporative cooling and all makeup water associated with the fifth train. The recycled water will be supplied by the West Basin Water Treatment Plant, via an existing piping connection. Data Responses #16-23 indicate that by July 2013, the proposed five train cogeneration facility's total consumption of 8,623 acre-feet per year (afy) of total water supply will be comprised of 5,806 afy of reclaimed water from the West Basin Water Treatment Plant. However, the Data Responses did not specify the source(s) and proportions of the remaining 2,817 afy of water supply, i.e., what percentage of water would be supplied from the California Water Services Company and what percentage of water is groundwater provided by onsite wells. Staff needs this information to analyze potential impacts to the identified water supply.

The AFC indicates that the Silverado water-bearing zone in the vicinity of the site is subject to sea water intrusion and that two sea water barrier projects are in operation to inhibit the inland flow of salt water into the West Coast Subbasin. Staff is therefore interested in the volume of water supplied annually from California Water Services Company and from groundwater and whether this would affect the sea water intrusion barrier.

DATA REQUESTS

42. Please identify what portion of the 2,817 afy of water supply will be provided by municipal supply from the California Water Services Company and groundwater from onsite wells.
43. Please provide a detailed discussion regarding the availability and feasibility of replacing the existing fresh water supplies with additional recycled or other alternative water supply.
44.
 - A. If the project plans to continue to rely on groundwater for a portion of the project's annual water supply, please provide a detailed discussion regarding impacts associated with the use of groundwater
 - B. Please discuss how the proposed groundwater pumping would contribute to the sea water intrusion impacts and how curtailing groundwater pumping could affect the sea water intrusion impacts.
45.
 - A. Please identify the proportions of water (local groundwater, surface water from State Water Project and the Colorado River) that comprise the municipal water supply delivered to BP Watson from the California Water Services Company.
 - B. Please compare the potential impacts associated with the water supplied by the California Water Services Company to groundwater pumped onsite.

BACKGROUND

Data Requests/Responses #26-31 were intended to provide Staff with additional information on the stormwater and wastewater streams BP and the storage and treatment processes included in the BP Refinery's oily-water treatment system. Staff requested additional information to confirm that the existing oily-water treatment system had adequate capacity to store and treat the additional wastewater and stormwater that BP Watson proposes to direct to the BP Refinery's oily-water treatment system.

Data Response 26 indicates that there was a description of the treatment processes in the oily-water treatment system included in the Industrial Wastewater Discharge Permit provided in Appendix R of the AFC. While the cover letter on the permit indicates that plans of the treatment system are attached, those plans were not included in Appendix R.

Data Response 28 provides stormwater calculations for the existing and proposed conditions at the BP Watson Cogeneration site. However, the calculations do not differentiate between stormwater directed to the existing clean water system which is ultimately discharged to the Dominguez Channel and stormwater directed to the oily water system which is ultimately discharged to the Los Angeles County Sanitation District's wastewater treatment plant. For instance, Areas 1 and 8 which comprise the fifth train area are currently directed to the clean water system and are proposed to be directed to the oily-water system following completion of the fifth train. Based on the stormwater calculations provided, these two areas alone produce a peak flow rate of

5,271 gallons per minute (gpm) during a 100-year event which exceeds the 5,210 gpm wet weather flow limit included in the BP Refinery's Industrial Wastewater Discharge Permit. Staff would like a clear determination of the changes in flowrates and volumes directed to each system.

Data Response 29 indicates that the BP Refinery oily water treatment system currently processes an average of 4,000 gpm or about 5,760,000 gallons per day (gpd) of wastewater which is in excess of the 5,081,000 (gpd) permit flowrate included in the Industrial Wastewater Discharge Permit.

Staff needs additional information on the storage capacity and treatment processes in the BP Refinery's oily-water treatment system to confirm that the existing treatment system has adequate excess storage capacity to treat the additional stormwater and wastewater discharge associated with the proposed fifth train. While the reported peak discharge of approximately 8,000 gpm is below the permitted maximum of 10,000 gpm, it is not clear that the existing system has adequate storage capacity to contain the additional stormwater runoff discharged from the proposed fifth train from a 100-year event without exceeding the 5,210 gpm wet weather flow limit.

46. Please provide revised stormwater calculations for existing and proposed conditions at the BP Watson Cogeneration site that differentiate between stormwater directed to the BP Refinery's oily-water treatment system and clean water system. The calculations should clearly identify changes in watershed areas and parameters and the resulting flowrates and volumes discharged to each system during 10-year and 100-year events.
47. Please provide a description of the treatment processes and storage capacity for the BP Watson Refinery's oily-water treatment system. Please provide the estimated discharge volume to the oily-water treatment system during a 100-year storm event under existing conditions (including the BP Refinery and BP Watson Cogeneration site) and the increase in discharge volume with the proposed fifth train at the BP Watson Cogeneration site. Please demonstrate that the existing treatment system has adequate storage volume to contain the runoff from a 100-year event without exceeding the wet weather flow limit.

BACKGROUND

In addition to these eight Data Requests, staff would like to discuss a potential condition of certification. This condition is suggested to document that the project is efficiently using the water supplied to the Facility. As described in the AFC, the project proposes an additional use of 3,016 afy for the proposed fifth train. This increase in water usage is more than 50% of the historic water use of the existing four-trains currently being operated. Staff would like to implement a monitoring plan to ensure that the project is efficiently utilizing the water supplied to the Facility. Therefore, at the next Data Response workshop, staff would like to discuss this potential condition. Additionally, staff is prepared to discuss any alternative suggestions from the applicant.

DATA REQUEST

48. Please identify any operational limitations that, as a factual and operational matter, would prevent the applicant from complying with the following proposed condition of certification.

SOIL&WATER-1: During operations, the Watson Cogeneration Steam and Electric Reliability Project (BP Watson) shall not exceed 8,623 acre-feet per year (afy) of total water supply. Beginning in 2014, reclaimed water shall comprise at least 5,806 afy of the total operational water supply and municipal water supplied by the California Water Services Company shall not exceed 2,817 afy. The use of groundwater supplied by onsite wells shall only be utilized as a back-up supply in the event of an interruption in the reclaimed water supply and/or the municipal water supply (this depends on Staff's analysis of potential impacts). Groundwater use shall not exceed 862 afy.

Prior to the use of water during commercial operation by the Watson Cogeneration Facility (Facility), the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per day the total volumes of water supplied to the Facility from each water source. Those metering devices shall be operational for the life of the project.

During operations, the Facility shall deliver at least 70% of total water supply as steam to the BP Watson Refinery 600# Steam Header, and at least 12% of total water supply to the BP Watson Refinery High Pressure Water Supply. Release of steam from the Steam Cycle Blowdown shall be less than 1% of total water supply and discharge to the BP Watson Refinery Wastewater System shall be less than 5% of total water supply. To help monitor the efficiency of water use at the Facility, the project owner shall install and maintain metering devices to monitor:

- Steam delivery to the Refinery Steam Header (line M, AFC Figure 5.5-1),
- Water delivery to the Refinery High Pressure Water System (line L, AFC Figure 5.5-1),
- Flash steam released from the Steam Cycle Blowdown Tank (line K, AFC Figure 5.5-1), and
- Wastewater Discharge (lines Q and P, AFC Figure 5.5-1).

The project owner shall prepare an annual Water Use Summary, which will include the daily usage, monthly range and monthly average of daily usage in gallons per day, and total usage by the project on a monthly and annual basis in acre-feet for each water supply (reclaimed, municipal, and groundwater) for the five-train Facility. In addition, the project owner shall prepare an annual Water Delivery Summary which will include daily delivery, monthly range and monthly average of daily delivery in gallons per day, and total delivery by the project on a monthly and annual basis in acre-feet for the delivery of steam, water, and wastewater to the BP Watson Refinery and release of flash steam from the Steam Cycle from the five-train Facility. Potable water use on-site

shall be recorded on a monthly basis. The Water Delivery Summary should identify the percentage of total water supplied that was delivered as steam, water, and wastewater to the BP Watson Refinery and released as flash steam from the Steam Cycle. For subsequent years, the annual Water Use Summary shall also include the yearly range and yearly average water use by the project. The annual Water Use Summary and Water Delivery Summary shall be submitted to the Compliance Project Manager (CPM) as part of the annual compliance report.

Verification: At least 60 days prior to commercial operation of the Facility, the project owner shall submit to the CPM conclusive proof that metering devices have been installed and are operational on the water supply and distribution system. The project owner will document total reclaimed, municipal, and groundwater usage and report all water usage to the CPM. The project owner will report all disruptions to the reclaimed, municipal, and groundwater supply, the water treatment process, the volume of backup water used, and the total annual reclaimed, municipal, and groundwater use for the year, and the two years prior, in the annual compliance report. The project owner shall also document total steam, water, and wastewater delivery to the BP Watson Refinery and document the total steam, water, and wastewater delivery for the year and two years prior in the annual compliance report. The project owner shall also provide a report on the servicing, testing and calibration of the metering devices in the annual compliance report.



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE **WATSON COGENERATION
STEAM AND ELECTRICITY RELIABILITY
PROJECT**

Docket No. 09-AFC-1

PROOF OF SERVICE LIST
(Revised 9/23/09)

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*indicates change

DECLARATION OF SERVICE

I, Teraja` Golston, declare that on December 10, 2009, I served and filed copies of the attached, (09-AFC-1) BP Watson - CEC Data Request Set 2 dated December 10, 2009. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/watson].**

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

sent electronically to all email addresses on the Proof of Service list;

by personal delivery or by depositing in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 09-AFC-1
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Original signed by _____
Teraja` Golston