

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

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APPLICATION FOR CERTIFICATION FOR THE WATSON COGENERATION STEAM AND ELECTRIC RELIABILITY PROJECT

DOCKET No. 09-AFC-01

ERRATA TO THE PRESIDING MEMBER'S PROPOSED DECISION

We incorporate the following changes to the February 15, 2012 Presiding Member's Proposed Decision (PMPD):

FACILITY DESIGN

1. Change all references to the 2007 California Building Standards Code to the 2010 edition.

GREENHOUSE GAS EMISSIONS

2. Page 6.1-2, insert the following after the first partial paragraph:

The SCAQMD is in the process of finalizing Rule 1714 to issue PSD permits for greenhouse gases. As of the date of the most recent evidentiary hearing for this project, the US EPA had not yet approved into the State Implementation Plan (SIP) SCAQMD's Rule 1714, Prevention of Significant Deterioration for GHG, which was adopted by the District on December 10, 2010, nor issued a delegation agreement to the District, which would authorize the District to issue PSD permits for GHG emission sources. (Ex. 203.) Mohsen Nazemi, Deputy Executive Officer for SCAQMD, testified at the evidentiary hearing that until Rule 1714 is approved and a delegation agreement issued, PSD permits for GHG sources would be issued by the US EPA. (11/1/11 RT 14:20–15:1.) Applicant testified that it was in the process of applying for a PSD permit for GHG but had not yet submitted the application. (11/1/11 RT 63:15–19).

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3. Page 6.1-2, 4th bullet, change as follows:

- The Watson Project's operation will be consistent with the state's GHG goals and policies and will help achieve the state's GHG goals, by (1) causing a decrease in overall electricity system GHG emissions; and (2) fostering the addition of renewable generation into the system, which will further reduce system GHG emissions; and
- 4. Page 6.1-5, paragraph c, change 0.500 to 0.5.
- 5. Page 6.1-6, paragraph g, change as follows:
- g. Energy Commission Precedent

Implementation of the State and Energy Commission policies discussed above should result in increasing availability and flexibility of renewable generation. Gas-fired power plants such as Watson currently play a role in advancing the State's climate and energy goals by displacing less-efficient generation resources and facilitating the integration of renewables into the system. However, as the Energy Commission observed in its December 2009 Decision on the Avenal Energy Project (08-AFC-01), the ability of gas-fired generation to contribute to the State's climate and energy goals is limited. The availability of renewable generation will increase as new projects are licensed and built and the technology develops. Efficiency and conservation measures have already had a substantial impact on California's energy consumption, and new measures continue to be implemented. We therefore expect that the proportion of <u>natural</u> gas energy generation (MWhr) in the state's generation mix will gradually diminish, even as natural gas generation capacity (installed MW) increases. Accordingly, we must evaluate the consistency of each proposed gas-fired power plant with these policies in order to ensure that we license only those plants which will help to reduce GHG emissions.

In Avenal, the Energy Commission used a three-part test to aid in its analysis of a proposed gas-fired plant's ability to advance the goals and policies described above. Gas-fired plants must:

- 1. Not increase the overall system heat rate for natural gas plants;
- 2. Not interfere with generation from existing renewable facilities nor with the integration of new renewable generation; and
- 3. Reduce system-wide GHG emissions and support the goals and policies of AB 32.³

While Avenal was decided before the Natural Resources Agency amended its Guidelines to specifically address GHG emissions, we find the above factors to be consistent with the CEQA Guidelines, particularly the guidance set forth in Title 20, California Code of Regulations, sections 15064.4(b)(1) and (3).

Commission staff suggests in the Final Staff Assessment that Watson would meet tests (1) and (3) of the Avenal Decision, but that it was not clear whether not be applicable to the Watson Project, as because it is a combined heat and power (CHP) project intended primarily to serve a refinery, and not a conventional natural gas power plant like Avenal, would meet test (2). However, the evidence shows that although the Watson Project's output is primarily intended to facilitate reliable operation of the refinery, it is located in a heavy load pocket. The power it produces will reduce the refinery's demands on the grid and it would interfere neither with generation from existing renewables, nor with integration of new renewables. These attributes are consistent with the three Avenal factors. (Ex. 200, p. 4.1-94.)

- **6. Page 6.1-15, delete the second paragraph, beginning** "As more renewable generation...."
- 7. Page 6.1-16, subpart iii, delete the first, third and fourth paragraphs.
- 8. Page 6.1-17, subpart iv, change the first sentence to read as follows:

New resources in the Los Angeles Basin Local Capacity Area like the Watson Project would also be required to provide <u>energy generation capacity</u> in the likely event that facilities utilizing once-through cooling (OTC) are retired.

9. Page 6.1-19, last paragraph, change as follows:

In this case, the evidence establishes that the Watson Project will not increase the system heat rate as it has a lower heat rate than many of the generators in the region it would serve. It will not support, rather than interfere with, existing and new renewable generation. Finally, it will reduce system-wide GHG emissions and otherwise support the goals of AB 32. We find the proposed project is consistent with state energy policy, and will help the state achieve its renewable energy goals.

10. Pages 6.1-21 and 6.1-22, delete Findings of Fact 10, 17, 18 and 19 and renumber accordingly.

- 11. Page 6.1-22, insert new Finding of Fact 17 as follows:
- 17. Since issuance of the FDOC, federal regulation of GHG emissions has become applicable to Watson. Accordingly, Watson is required to obtain a PSD permit for GHG emissions.
- 12. Page 6.1-22, delete Conclusion of Law 3.

AIR QUALITY

13. Page 6.2-3, second paragraph, change the last sentence, and add a sentence at the end, as follows:

The South Coast Air Quality Management District (District or SCAQMD) has jurisdiction for non-attainment NSR in Los Angeles County and its rules apply to Watson. (Ex. 200, p. 4.1-3.) The Final Determination of Compliance completed by the District did not include a PSD analysis for GHG emissions because it is currently done under federal authority, pending final adoption of a new District rule.

14. Page 6.2-19, under the heading "CONDITIONS OF CERTIFICATION" insert the following:

The Watson Project is located within 1 mile of 10 schools, 3 parks, 4 day care centers, 12 churches, and a nursing home. In order to ensure that air quality impacts are minimized, strict compliance with these conditions is required.

- 15. Page 6.2-31, Condition of Certification AQ-SC9, verification, delete the words "in a Quarterly Operation Report."
- **16.** Page 6.2-31, Condition of Certification AQ-SC10, delete the words "collected on a quarterly basis."
- 17. Page 6.2-31, Condition of Certification AQ-1, insert the following after the paragraph ending in "source test:"

For purposes of this condition, limits shall be based on the total combined emissions from the combustion turbine and duct burner. The project owner shall calculate emissions by using monthly fuel use data and an emissions factor of 2.64 lbs VOC/MMscf for natural gas.

18. Page 6.2-32, Condition of Certification AQ-2, change as follows:

The project owner/operator shall not produce emissions of oxides of nitrogen from the facility proposed project (fifth train) that exceed the RECLAIM Trading Credits holdings of 39.9 tons/yr in any 12-month period, determined monthly based on total emissions over the previous 12-month period required in Condition of Certification AQ-15 within a calendar year.

19. Page 6.2-34, Condition of Certification AQ-5, change as follows:

The project owner may exceed either the <u>combustion contaminant</u> mass <u>limit of 11</u> <u>lbs/hour</u> or concentration emission limit <u>of 0.01 gr/scf calculated at 3 percent oxygen, dry basis averaged over 15 consecutive minutes</u>, but not both limits at the same time as set forth in Conditions of Certification AQ-1, -2, -3 or -4.

20. Page 6.2-34, Condition of Certification AQ-6, first three paragraphs, change as follows:

The operator shall not use refinery gas containing the following specified compounds:

Compound	ppm by volume
Total Reduced Sulfur (calculated as H2S) greater than	40
Total Reduced Sulfur (calculated as H2S) greater than	30

The 40 ppm limit shall be based on a rolling 3-hour averaging period. The 30 ppm limit shall be based on a rolling 24-hour averaging period.

Refinery gas is defined as a mixture of refinery fuel gas, produced within the refinery that may be mixed with natural gas obtained from a utility regulated by the Public Utilities Commission (PUC), in order to balance heat content of the fuel gas mixture, (formed at a point upstream of the sampling location for Total Reduced Sulfur concentration). The natural gas component of the fuel gas mixture shall not exceed 50 percent of the refinery gas total, by Higher Heating Value (HHV) content.

The operator shall not use <u>fuel_refinery_gas</u> containing the following specified compounds:

Compound	ppm by volume
H2S greater than	162
H2S greater than	60

21. Page 6.2-35, Condition of Certification AQ-7, second bullet, change as follows:

- The initial source test shall be conducted within 90 days after achieving maximum production rate, but no later than 180 days following the date of first fire.
- 22. Page 6.2-36, Condition of Certification AQ-7, Source Test Requirements table, under Ammonia, delete "5.3 and."
- 23. Page 6.2-36, Condition of Certification AQ-7, item 4, change as follows:
 - 4. additionally, for PM10 only, grains per dry standard cubic feet of fuel burned gas exhausted
- **24.** Page. 6.2-37, Condition of Certification AQ-8, 4th bullet, delete "5.3 and."

- 25. Page 6.2-37, Condition of Certification AQ-8, 6th bullet, change 45 to 60.
- 26. Page 6.2-38, Condition of Certification AQ-9, first bullet, change as follows:
 - NO_X, SO_X concentration in ppmv and CO concentrations in ppmv.
- **27.** Page 6.2-38, Condition of Certification AQ-9, last bullet, add "and SO_X " after NO_X .
- 28. Page 6.2-39, Condition of Certification AQ-11, change the equation as follows: NH3 (ppmv) = [a-(b*c*1.2)/1E6]*1E6/b, replace "385.5 scf/lbmol" with "29 (lb/lbmole)," and change "mol" to "mole" throughout.
- 29. Page 6.2-40, Condition of Certification AQ-11, change the last sentence of the second complete paragraph as follows:

The turbine shall be limited to four cold startups per year, $\frac{12}{24}$ warm startups per year, and $\frac{16}{29}$ shutdowns per year.

30. Page 6.2-41, Condition of Certification AQ-13, change the last sentence of the first paragraph as follows:

The catalyst temperature range shall remain between 740 degrees F and 840 degrees F while the SCR reactor is being used to reduce NO_x emissions. Ammonia injection is not required if the inlet SCR temperature falls below 500 F, not to exceed 3 hours during startup.

31. Page 6.2-42, Condition of Certification AQ-14, second paragraph, change "every month" to "every week" and "that month" to "that week."

PUBLIC HEALTH

- **32.** Page 6.3-4, last paragraph, replace "Tier 2 or Tier 1" with "Tier 3 or better."
- 33. Page 6.3-6, last paragraph, first sentence, change as follows:

The <u>new</u> emissions sources at the proposed Watson Project include one combustion turbine generator and two cooling tower cells.

WASTE MANAGEMENT

34. Page 6.6-4, first paragraph, change "Class I or II" to "Class II or III."

SOIL & WATER RESOURCES

35. Page 7.2-11, first paragraph, change as follows:

Watson proposes to use the Watson Cogeneration facility's freshwater supply for the existing four train plant to supply the combined five trains. The freshwater supply for the existing Watson Cogeneration facility is about two thirds municipal water (a blend of about 70-80 percent imported water and 20-30 percent local groundwater), and about one third groundwater pumped from wells located at the BP Carson Refinery. The Applicant proposed maintaining annual freshwater supply at levels of up to 4,609 AFY based on the previous 11 years of operation (2000-2010) of the Watson Cogeneration facility. The Applicant also stated that it would utilize reclaimed water if combined Watson Cogeneration and Watson Project water use increased above the cap to allow the combined units to provide additional steam and high-pressure water to the BP Carson Refinery. (Ex. 200, p. 4.9-31.)

36. Page 7.2-12, insert the following after the third paragraph:

Finally, pumping in the West Coast Basin, particularly close to the Pacific Ocean, has resulted in significant sea water intrusion impacts to the aquifer. The Dominguez Gap Barrier Project's injection wells are operated by the Water Replenishment District of Southern California to mitigate sea water intrusion impacts into the West Coast Basin aquifer. The Water Replenishment District's groundwater modeling indicates that about 70 percent of the groundwater pumped for Watson Cogeneration's water supply is comprised of replenishment water injected into the Dominguez Gap Barrier due to the close proximity to the BP Carson Refinery's groundwater pumping wells. Thus, groundwater pumping at BP Carson Refinery limits the efficacy of the injection program and contributes to the sea water intrusion impacts to the West Coast Basin aquifer, and any increase in groundwater pumping to supply Watson above existing levels would exacerbate this already significant impact. (Ex. 200, p. 4.9-36.)

37. Page 7.2-14, first partial paragraph, insert the following at the end:

In the event that the reclaimed water supply is interrupted by the reclaimed water supplier, Condition of Certification SOIL&WATER-10 allows the project owner to petition the Energy Commission for a temporary increase in the 4,425 AFY freshwater cap provided that any impacts associated with the increased freshwater use are identified and mitigated.

38. Page 7.2-17, Finding of Fact 5, change as follows:

5. With the implementation of the proposed mitigation measures contained in the conditions of certification, the Watson Project's construction and operation activities will not cause a substantial or potentially adverse change in the quantity or quality of groundwater or surface water.

39. Page 7.2-21 SOIL&WATER-3 Verification last sentence, change as follows:

The project owner shall revise the SUSMP to address all comments from the Los Angeles Regional Water Quality Control Board and the city of Carson and submit the final SUSMP-for approval by to the CPM prior to operation.

CULTURAL RESOURCES

40. Condition of Certification CUL-2, first paragraph, delete "or 1" = 200'."

LAND USE

41. Page **8.1-4**, last sentence, change the cite to Ex. 200, p. 4.6-14.

SOCIOECONOMICS

- 42. Page 8.3-3, first paragraph, first line, change "12" to "1.2."
- **43.** Page 8.3-5, third paragraph, fifth line, delete "NEPA."
- **44.** Page 8.3-5, third paragraph, seventh line, replace "low-income" with "below poverty level."

Dated: April 2, 2012, at Sacramento, California.

Original Signed By:

CARLA PETERMAN
Commissioner and Presiding Member
Watson Cogeneration Project
AFC Committee

Original Signed By:

KAREN DOUGLAS
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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

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APPLICATION FOR CERTIFICATION FOR THE WATSON COGENERATION STEAM AND ELECTRIC RELIABILITY PROJECT

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DECLARATION OF SERVICE

I, RoseMary Avalos, declare that on April 3, 2012, I served and filed a copy of the attached ERRATA TO THE PRESIDING MEMBER'S PROPOSED DECISION dated April 2, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at:

www.energy.ca.gov/sitingcases/watson/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

	For	service	to	all	other	parties
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on that date to those addresses NOT marked "e-mail preferred."

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission Michael J. Levy, Chief Counsel 1516 Ninth Street MS-14 Sacramento, CA 95814 mlevy@energy.state.ca.us

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signed By:

RoseMary Avalos Hearing Adviser's Office