STATE OF CALIFORNIA

Energy Resources Conservation And Development Commission

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07-AFC-6
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In the Matter of:

Application for Certification for the Carlsbad Energy Center Project

Docket No. 07-AFC-6

ENERGY COMMISSION STAFF'S RESPONSE AND COMMENTS TO THE PRESIDING MEMBER'S PROPOSED DECISION

On May 9, 2011, the committee assigned to hear this matter filed the Presiding Member's Proposed Decision (PMPD). Among other things, the PMPD recommended provisional approval of the CECP with the caveat that a more substantive discussion of the project's "Extraordinary Public Benefit" be examined and discussed by parties to the proceeding.

Staff's comments on the PMPD are in the following technical areas:

Alternatives – Page 2
Biological Resources – Page 2
Cultural Resources – Page 4
Greenhouse Gases – Page 5
Geological and Paleontological Resources – Page 8
Hazardous Materials Management – Page 8
Noise and Vibration – Page 8
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Visual Resources – Page 11
Worker Safety/Fire Projection – Page 11
Air Quality – Page 13

PROOF OF SERVICE (REVISED 5/18/11) FILED WITH ORIGINAL MAILED FROM SACRAMENTO ON 6/8/11
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STAFF PMPD COMMENTS

ALTERNATIVES

Please revise the PMPD text with the following revisions:

Page 17, final paragraph, should include the following citation (underlined): "Their comments were addressed by Staff in the Final Staff Assessment. (Exh. 20, p. 6-20.)

Page 18, Finding of Fact No. 5 should remove the "double negative" statement to make sense. It should read: "No alternative, including the 'no project' alternative, would avoid or substantially lessen potentially significant environmental impacts . . . ."

BIOLOGICAL RESOURCES

Please revise the PMPD text with the following revisions:

Page 2, Biological Resources Table 1

Editorial corrections are suggested for the following species: Coast woolly-heads, Orcutt's pincushion. Status updates are necessary for the following species given changes since publication of the FSA: Coast woolly-heads, American peregrine falcon, California brown pelican. New status designations (FD = Federal delisted, CD = State delisted) were also added.

Biological Resources Table 1
Special-Status Species Reported or Suspected to Occur within One Mile of CECP

Common Name	Scientific Name	Status
Plants		
California adolphia	*Adolphia californica*	CNPS List 2
Coast woolly-heads	*Nemacaulis denudata* var. *denudatea*	CNPS List ~~2~~1B
Cliff spurge	*Euphorbia misera*	CNPS List 2; HMP
Orcutt's pincushion	*Chaenactis glabriuscula* ssp. *orcuttiana*	CNPS List 1B
South Coast saltscale	*Atriplex pacifica*	CNPS List 1B
Wart-stemmed ceanothus	*Ceanothus verrucosus*	CNPS List 2; HMP
Insects and Crustacea		
Saltmarsh skipper butterfly	*Panoquina errans*	HMP
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE; HMP
Fish		
Tidewater goby	*Eucyclogobius newberryi*	FE; CSC
Reptiles		
Southwestern pond turtle	*Emys marmorata pallida*	CSC

Common Name	Scientific Name	Status
Birds		
American peregrine falcon	*Falco peregrinus anatum*	FD; ~~CE~~CD, FP, HMP
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	CE; HMP
California brown pelican	*Pelecanus occidentalis californicus*	~~FE~~FD; ~~CE~~CD, FP; HMP
California least tern	*Sterna antillarum browni*	FE; CE, FP; HMP
Coastal California gnatcatcher	*Polioptila californica californica*	FT; CSC; HMP
Cooper's hawk	*Accipiter cooperi*	WL; HMP
Elegant tern	*Sterna elegans*	WL; HMP
Light-footed clapper rail	*Rallus longirostris levipes*	FE; CE, FP; HMP
Osprey	*Pandion haliaetus*	WL; HMP
Western snowy plover	*Charadrius alexandrinus nivosus*	FT; CSC; HMP
White-faced ibis	*Plegadis chihi*	WL; HMP
Mammals		
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	CSC

Source: (Ex. 200, p. 4.2-6.)

State Status
CE = State-listed as endangered
CT = State-listed as threatened
CD = State delisted
CSC = California species of special concern
FP = Fully protected
WL = Watch list

Federal Status
FE = Federally listed as endangered
FT = Federally listed as threatened
FD = Federally delisted

CNPS Status
CNPS List 1B = Plants rare, threatened, or endangered in California and elsewhere
CNPS List 2 = Plants rare, threatened, or endangered in California, but more common elsewhere

HMP for Natural Communities in the City of Carlsbad
HMP = covered species

Page 8, last full paragraph on page, should be clarified by replacing it with the following discussion:

"The timing of the closure of ESP units 4 and 5 is uncertain, as the Water Board's OTC Policy leaves open the possibility that they will continue to run after 2017 if they continue to be essential to electric system reliability, and also allows compliance with the Policy by mechanical or operational methods of reducing impacts. So long as units 4 and 5 continue to operate, CECP's use of ocean water will be from the EPS system (taking and returning water to the ocean), and will not result in any cumulative OTC or new impact related to OTC. Moreover, even if one assumes the eventual shutdown of units 4 and 5, the relatively small use of seawater taken from the OTC system would not be a significant cumulative impact to marine biology, as discussed further in on pages 10 and 11 of this Decision under the topic of **Soil and Water Resources.**

"In the event of the shutdown of units 4 and 5, we have, at Staff's suggestion (02/04/10 RT 266:24-267:6), included Condition **Bio-9** to emphasize the need for possible future joint agency review and coordination. If the EPS units are in fact shut down in the future and this affects intake water supply, the appropriate regulatory agencies will then assess the proper course of action to be taken."[footnote 3]

Page 10, Findings of Fact. Finding 10 states that "the shutdown of EPS units 4 and 5 is a speculative future event, and is not part of the present project." Staff believes that this finding should be replaced with the following language, followed by two additional findings, as set forth below:

10. The Water Board's OTC Policy does not require the shutdown of EPS units 4-5, but rather the reduction of OTC impacts.

10.a. The project's relatively small use of seawater for its desalination unit will not have a significant cumulative impact to marine biota.

CULTURAL RESOURCES

Please revise the PMPD text with the following revisions:

Page 2. Background, Line 10
The existing storage tank area at the EPS site, which includes a portion of the CECP footprint, was ~~excavated to bed rock~~ over-excavated during construction of the tanks in the 1960's and 1970's and up to 9 feet of fill was added for grading purposes.

Comment: The tank farm area has been over-excavated, covered with artificial fill, and the Applicant has asserted that the installation of the tank farm area took the project down to bedrock. Confidential cultural resources reports submitted by the Applicant's consultant expressed concern that archaeological material might be discovered, if native soil is encountered under the tanks (Final Staff Assessment (FSA) p. 4.3-17, second paragraph).

Page 5, last paragraph on page. Page 6, first paragraph on page.

1. Commission staff appears to recommend that the mitigation measures described in Conditions CUL-1 through CUL-8 apply under any circumstances when project-related ground disturbance is necessary.

The Cultural Resources FSA for the Carlsbad Energy Center Project (CECP) was written in early 2009, and at that time staff typically included a subsection entitled Operation Impacts and Mitigation. This subsection discussed the applicability of the conditions of certification to ground disturbance during operation. Staff no longer includes a subsection that discusses operation impacts and mitigation in PSAs and FSAs because staff concluded that, for the most part, further ground disturbance near projects during operation would be conducted in fill placed at the project site when the project was built.

The issue raised by the Committee is addressed adequately by the definition of "ground disturbance." The CECP Cultural Resources conditions of certification have a footnoted definition of "ground disturbance" (included in CUL-1 but applying to that term in the conditions) that is based on definitions from the General Conditions placed on the project. The footnoted definition number 3 (located on page 8 of the PMPD), defines ground disturbance, which is a limiting factor on all of the conditions, in terms of pre-construction or construction. Based on this definition of ground disturbance, the conditions are applicable only during the pre-construction and construction phases of the project, not during the operational phase.

2. Further, it may not be appropriate to apply all of the conditions—the worker awareness training, for example—to a discrete project conducted by a subset of the operations employees or a contractor conducting the specialized excavation work. We therefore invite the parties, especially the staff, to propose an additional condition specifying the measures that should apply to post-construction activities.

Due to Hearing Officer Kramer's previous feedback on this issue with respect to the conditions for the Canyon Power Plant (07-AFC-9), on subsequent projects staff added language to CUL-1 that limits the time the CRS has responsibilities for the project and the length of time that the cultural resources conditions apply to project activities. Instead of adding a new condition, staff proposes adding that same new language to Carlsbad CUL-1, as noted in the comment for Page 9 (see below).

Page 9. End of First Paragraph at Top of Page

Staff is proposing adding the following language to CUL-1, at the end of the first paragraph at the top of page 9, in response to the hearing officer's comment on pages 5 and 6:
After all ground disturbance is completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, if the CPM approves. With the discharge of the CRS, these cultural resources conditions no longer apply to the activities of this power plant.

GREEN HOUSE GASES (GHG)

Please revise the PMPD text with the following revisions:

Pages 2-3, AB32 Discussion: Staff recommends noting that the project would also need to comply with the California Air Resources Board (CARB) Cap and Trade regulations. A suggested addition the paragraph running from Page 2 to Page 3 is as follows:

The Energy Commission recognizes that meeting the AB 32 goals is vital to the state's economic and environmental health. CARB staff is developing regulatory language to implement its plan and holds ongoing public workshops on key elements of the recommended GHG reduction measures, including market mechanisms. The scoping plan adopted by CARB relies heavily on cost-effective energy efficiency and demand response, renewable energy, and other priority resources in the loading order (discussed below) to

achieve significant reductions of emissions in the electricity sector by 2020. Even more dramatic reductions in electricity sector emissions would likely be required to meet California's 2050 greenhouse gas reduction goal. CARB has approved a CO_2 Cap and Trade regulation that would, upon its completion and implementation, add to the market forces driving towards the most efficient fossil-fuel fired generation; and the CECP would be subject to this Cap and Trade regulation. In evaluating the GHG emissions generated by a facility under our jurisdiction, we assess whether the facility would be consistent with and support these policies.

Page 3, under "Emissions Performance Standard," the final line should be clarified to state: "The EPS is not applicable to the CECP facility because it is an intermediate or mid-merit facility that operates on a more intermittent basis than a baseload facility (i.e., at less than a 60 percent capacity factor).

Page 5, next to last paragraph, should be clarified to include the specific terms of the quoted CEQA Guideline sections, as follows:

". . . we find the above factors to be consistent with the CEQA Guidelines, particularly the guidance set forth in Title 14, California Code of Regulations, sections 15064.4(b)(1) and (3): (b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:
(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting . . . .
(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions . . . .

Page 7, First Paragraph: Staff recommends the following changes so that the SCAQMD CEQA significance approach of amortizing of the project life, not over the construction duration, is properly described:

.
The South Coast Air Quality Management District (SCAQMD) approved a different approach to significance of GHG impacts at its December 5, 2008, Board Meeting. Rather than set a threshold for operational emissions, construction emissions are amortized over the life of a project and considered in combination with operational emissions. [See Proposal to Adopt Interim CEQA GHG Significance Threshold for Stationary Sources, **http://www.aqmd.gov/hb/2008/December/081231a.htm**.[3]

~~.~~ Applying the SCAQMD approach to CECP, GHG emission from construction of CECP, amortized annually over the project's operating life of 30 years~~construction period~~, would be 156~~2,250~~ MTCO2e tons per year, a tiny fraction of a percent of estimated annual emissions from operation.

Page 14, Table 3 and following paragraph: Staff recommends that this information be updated based on the progress that has occurred since the FSA was published as follows:

Greenhouse Gas Table 3
New/Pending Projects in San Diego Basin

Project Name	Technology	MW	Status
Otay Mesa	NG combined cycle	561	Operational~~Under Construction~~
Orange Grove	NG peakers	94	Operational~~Under Construction~~
Wellhead Margarita	NG peaker	44	On Hold
Bull Moose	Biomass	27	Undergoing Permit Review
Lake Hodges	Pump Storage Hydro	40	Under Construction
Pio Pico	NG peakers	300	Undergoing Licensing Review

Source: EX 222, P. 4.1-112~~CAISO 2008.~~ Current ~~S~~status updated ~~determined~~ by Energy Commission staff.

Assuming the addition of all the new facilities shown in the above table, 1039~~766~~ MW will be added to the San Diego load pocket prior to 2015~~2013~~. Retirement of Encina and South Bay would nevertheless constitute a net reduction of capacity in San Diego of 929 MW, leaving 2,295~~,022~~ MW of local capacity. This is ~~3~~140 MW less than that estimated by the CAISO as necessary to meet local capacity requirements in 2015 (reference: 2013-2015 Local Capacity Technical Analysis, ISO, 12/31/10). The capacity provided by CECP will allow for the retirement of the Encina units (1-3) and (with the Sunrise Powerlink) South Bay; it should also reduce operation of Encina Units 4-5, and facilitate their future retirement.

Page 19 (Findings of Fact): add a Finding following **Finding 7** as follows:
7.a. New gas-fired generation units, when added to the electric generation and transmission grid, replace or displace the generation of existing units that are less efficient.

Modify Finding 8 to include the following additional language:
8. When it operates, CECP will have a heat rate of 7,147 Btu/kWhr which would make it significantly more efficient than nearly all other regional gas-fired generating units.

Revise Finding 13 to read as follows:
13. The CECP's quick start and fast ramping capabilities will help integrate additional renewable generation into the electricity system, which is necessary to further reduce system GHG emissions from the electricity generation system.

Add the following language to Conclusion of Law 2:
2. The CECP operational effect will be to reduce GHG emissions from the integrated electric grid, and will not result in a significant environmental impact.

GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

Please revise the PMPD text with the following revisions:

Page 8: make the following changes and additions to the Findings of Fact:

10. The evidence indicates that liquefaction, lateral spreading, ...

10.a. Project construction will conform to the most recently adopted version of the California Building Code, including its seismic requirements for the project locality, based on the results of the required geotechnical investigation.

12.a. Geologic hazards to the project, including those from seismic events, would be low, but must be addressed in the geotechnical report provided consistent with the most recently adopted version of the California Building Code.

12.b. Compliance with the seismic requirements of the California Building Code effectively mitigates the danger to project structures from seismic ground shaking.

HAZARDOUS MATERIALS MANAGEMENT

Please augment the PMPD to include **HAZ-10**, which was previously submitted to the Committee and discussed during the PMPD Hearing in Carlsbad on May 19, 2011.

NOISE AND VIBRATION

Please revise the PMPD text with the following revisions:

Page 8, last partial paragraph on page, should be modified to read as follows:
"For example, the noise impact, if any, from the possible future widening of I-5 is speculative and impossible to discern at the present time. The evidence indicates that the project is as much as 10 years in the future, making the estimation of traffic levels, traffic speeds, and vehicle noise emissions very inexact. Moreover, the project is still at the planning and environmental analysis stage, so there is no certainty about what kind of mitigation for noise may accompany it, nor how effective that mitigation might be. For example, if (and we cannot know this) the project does incorporate a sound wall for noise mitigation, it is impossible to know, without specifications (location, materials, height, etc.) how that would affect traffic sounds, an effect which is itself impossible to meaningfully estimate for an impact so far in the future. (See, e.g., 2/4/10 RT 255-257.)"

PUBLIC HEALTH

Please revise the PMPD text with the following revisions:

Page 8: Add the following language to Finding of Fact 10:

10. Cumulative impacts from non-criteria (i.e., toxic) pollutants were analyzed . . . .

SOCIOECONOMICS

Please revise the PMPD text with the following revisions:

Section C, Page 1, Environmental Justice, last paragraph, last sentence:

A socioeconomic analysis only considers socioeconomic impacts and conclusions made in the analysis are specific to socioeconomic impacts. The last sentence needs to be clarified. Please revise the last sentence to the following: The evidence shows that the project will not disproportionately impact these populations in the area of socioeconomics.

Section C, Page 5, Findings of Fact, item 2:

A socioeconomic analysis only considers socioeconomic impacts and not impacts for other technical areas. The sentence needs to be clarified. Please revise the sentence to the following:

2. The project will not create disproportionate socioeconomic impacts on minority and/or low income populations, nor does it cause significant adverse socioeconomic impacts to any population in the project vicinity.

Section C, Page 5, Findings of Fact, item 8:

The project's construction payroll is approximately $54.6 million, not $54.4 million as stated in PMPD under this item number. Please revise the sentence to the following:
8. The project will have a construction payroll of approximately $54.64 million.

Section C, Page 6, Conclusions of Law, item 1:

A socioeconomic analysis only considers socioeconomic impacts and not impacts for other technical areas. The sentence needs to be clarified. Please revise the sentence to the following:
1. The evidence of record contains an adequate analysis of potential socioeconomic effects in accordance with federal and state guidelines on environmental justice, and establishes that the project will not create any disproportionate adverse socioeconomic effects on minority or low-income populations.

SOIL AND WATER RESOURCES

Please revise the PMPD text with the following revisions:

Page 3, starting with the first sentence of the first paragraph, the text should be revised as follows:

"The CECP would require approximately 517 acre-feet per year (AFY) of recycled water based on continuous operations for a ~~116.8 days (~~ 40 percent capacity factor with 80% power augmentation ~~)~~."

Page 3, starting with the last sentence of the fourth paragraph, the text should be revised as follows:

"The maximum intake of ocean water for CECP operation and outfall dilution would be 3,000 gpm or approximately 4.32 million gallons/day (mgd) ~~or 1,900 AFY~~.

Page 10, starting with the third paragraph, the discussion should be revised as follows:

"While units 4 and 5 operate, CECP will draw its water from the discharge (output) part of the OTC system, using water already drawn in by EPS and circulated for cooling. CECP uses water already drawn from the ocean for cooling purposes and has no effect, positive or negative, on the impacts of drawing the water.

"The City and other intervenors have contended that the Water Board's new OTC Policy will require the shutdown of ESP units 4 and 5 at the end of 2017, and that the CECP should thus be analyzed as a "stand alone" use of ocean water that will cause some (albeit comparatively minor) impingement and entrainment of marine biota. This contention is incorrect for two reasons. First, the OTC Policy does not require the shutdown of units 4 and 5 at the end of 2017. Rather, it requires the significant reduction of entrainment and impingement effects by that date. The Policy specifically provides a performance standard to meet this requirement, allowing reduction by mechanical (e.g., such as booms or screens) or performance (e.g., reduced pumping) methods. The Commission should not speculate on how the Policy requirements will be met by ESP. In addition, the OTC Policy is very clear that the 2017 date is subject to review based on the electricity reliability needs of the State, and that it may be revised to allow operation until such time as the units are no longer necessary for San Diego's electric reliability.

"Even if one assumes the shutdown of ESP units 4 and 5, there is no evidence that the small desalination unit's use of OTC water would have a significant cumulative impact. The City, in its EIR for the Carlsbad Seawater Desalination Project (CSDP), concluded that there would be no significant impact for using 304 mgd of OTC intake water for that project. CECP will use a maximum of 4.3 mgd, and the evidence of record indicates that this use will likewise not be cumulatively significant.

"Considered on its own . . . ."

Pages 14-15: Staff recommends inclusion of the following Findings of Fact:

4. No reclaimed water is available for CECP without a significant expansion of the City's waste water treatment infrastructure.

5. If reclaimed water is unavailable, CECP will rely on an osmosis water treatment system to derive the 4.3 mgd maximum amount of water it will need to operate.

6. The CECP's osmosis system will reuse water pumped for cooling purposes through the EPS OTC system that will continue to be used by ESP units 4 and 5.

7. The State Water Board's OTC Policy does not require the shutdown of ESP units 4 and 5, and the closure date for those units is indeterminate.

8. The EPS OTC system will also be used by the CSDP desalination project, which will require 304 mgd to operate its project.

9. The CSDP project is currently permitted and under construction.

10. Even assuming the future shutdown of ESP units 4 and 5, CECP's use of water from the OTC system will not result in a significant cumulative impact to marine biota.

Page 17, starting with the second sentence of SOIL & WATER-8 Verification, the text should be revised as follows:

"The agreement shall specify a maximum delivery rate of ~~840~~ 945 gpm and shall specify all terms and costs for the delivery and use of recycled water by the CECP."

VISUAL RESOURCES

Please revise the PMPD text with the following revisions:

Page 52, Findings of Fact; add the following additional Findings:
8.a. The potential CALTRANS I-5 widening project is proposed to occur several years in the future, and may encroach in some measure on the CECP site, creating a potential cumulative visual impact.

8.b. The evidence, including CALTRANS planning documents and measurements by Staff using those documents, establishes that the I-5 widening project will leave sufficient room for a buffer that can include a new landscaped berm to mitigate visual impacts of the project.

8.c. Assuming the CALTRANS I-5 widening proceeds as planned, the mitigation provided in VIS-5 requires the applicant to create a berm with a visual buffer, working cooperatively with CALTRANS when that project is built; such mitigation sufficiently reduces the potential cumulative impact of that future project to one that is less than significant.

WORKER SAFETY / FIRE PROTECTION

Please revise the PMPD text with the following revisions:

Page 6, first full paragraph: add citations to the Final Staff Assessment to support statements in the second and fourth sentences. The citation should be to Exhibit 200, pp. 4.14-15 and 16.

Page 8, last full paragraph: add citation to Final Staff Assessment to support statement in second sentence of paragraph. The citation should be to Exhibit 200, p. 4.14-17.

Page 9, paragraph in middle of page describing water supply: Clarify that, based on Dr. Greenberg's May 19, 2011, testimony, the project's fire suppression systems are connected to the City's water system.

Page 11, Findings of Fact: modify Finding of Fact 6 and add two additional Findings of Fact after **Finding 8**, as follows:

6. The design of the project, including fire lanes with a minimum width of 28 feet as required by this decision, affords satisfactory access for fire and emergency responders.

8.a. The possible future widening of the Interstate 5 freeway will not degrade fire protection in any significant way.

8.b. The project will meet or exceed the requirements of the most recently adopted edition of the California Fire Code and applicable NFPA standards.

At the PMPD hearing on May 19, staff was asked to clarify the intent of the wording "At a minimum" as contained in proposed Condition **Worker Safety-10**. Staff feels that the proposed condition is best presented without the confusing words and thus proposes the following revision:

WORKER SAFETY-10 The project owner shall prepare a Transformer Fire Protection Plan which shall evaluate any feasible methods that can be used to prevent, contain, and/or control a transformer fire, including the use of new dielectric fluids, pressure sensors with shut-down capability, dissolved gas analyzers, use of compressed-air-foam for fire suppression, and sub-surface vaults to contain spilled/leaked dielectric fluids. The project owner shall submit this Plan to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval.

Verification: At least 60 days before the arrival of a transformer on site, the project owner shall submit a copy of the Transformer Fire Protection Plan to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval.

Also at the PMPD hearing on May 19, staff was asked to prepare and submit to the Carlsbad Fire Department for review and comment a revision to **Worker Safety-6** that ensures that the fire access ramps into the CECP location (the "bowl") and the fire lanes in the "bowl" are maintained free and clear of all vehicles and equipment at all times, are guaranteed as fire lanes, and are painted with red paint to indicate that they are indeed fire lanes.

WORKER SAFETY-6 The project owner shall ensure that the below-grade site fire lanes, access points, and ramps (with no more than a 10% grade) are constructed as per the dimensions shown in Revised Figure 2.2-1 and that at least two access points through the site perimeter and into the below-grade power plant site are available to the CFD and other emergency response providers. The project owner shall guarantee that the two fire access ramps down into the project site and the fire lane around the perimeter of the below-grade site are free and clear of all vehicles, equipment, or any other object (mobile or stationary) at all times

and that the boundaries or curbs of the ramps and lanes are painted red and contain signage to indicate that they are fire roads and lanes. The final blueprints for the site shall be submitted at least 30 days prior to the start of site mobilization to the Carlsbad Fire Department for review and comment and to the CPM for review and approval. A copy of the transmittal letter to the Carlsbad Fire Department shall also be sent to the CPM. Any requested changes in the fire lanes, ramps, and access points shall be made in writing to the CPM and the CBO for review and approval after obtaining comments from the CFD.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit a copy of the final site blueprints to the Carlsbad Fire Department for review and comment and to the CPM for review and approval. The project owner shall also submit to the CPM a copy of the transmittal letter to the CFD.

At least 60 days prior to the start of commissioning or the arrival on-site of any liquid fuel, natural gas, or hazardous material, whichever occurs first, the project owner shall submit to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval a signed declaration along with photographic evidence that the access ramps and fire lanes are guaranteed to always be clear and unobstructed and that signs and red paint have been placed in the appropriate locations.

Lastly, at the PMPD hearing on May 20, staff was asked to clarify a sentence of **Worker Safety-8,** which the Committee had highlighted in yellow in the May 9, 2011 published PMPD:

WORKER SAFETY-8
"When the units are dispatched from a shutdown condition, the project owner shall send the two workers to the site while commencing startup; and those two workers shall proceed directly to the site."

Staff's expert witness, Dr. Alvin Greenberg, testified on May 20 that the intent here is that two workers need not be on the site during startup, but they must proceed directly to the site once they commence startup, and shall remain on site during the entirety of power plant operations.

AIR QUALITY

Please revise the PMPD text with the following revisions:

Page 6 first partial paragraph: Staff recommends the following correction to the description of Condition AQ-SC6:

…monitoring, record keeping, and reporting requirements. Condition **AQ-SC6** requires the project owner to notify the Energy Commission ~~and the U.S EPA~~ whenever the owner requests ~~or~~ the Air District or U.S.EPA to modify the project's permit conditions.

Page 12 fourth full paragraph: Add an additional Finding of Fact after Finding 3 reflecting the recent testimony on compliance with the new federal NO2 standard, as follows:

3.a. The evidence establishes that CECP will comply with the new federal short-term NO2 standard.

Staff also recommends the following correction to the description of Condition AQ-SC5 based on the staff recommendation to revise this condition to current staff standards: Condition of Certification **AQ-SC5**, integrates and augments the applicant's construction equipment mitigation to mitigate the PM and NO_x emissions from the large diesel-fueled construction equipment. This condition, which has been updated from the version noted in the FSA to the latest Commission-approved version, requires the use of EPA/ARB Tier 3~~2~~ engine compliant equipment for equipment over 50~~100~~ horsepower where available, ~~a good faith effort to find and use available EPA/ARB Tier 3 engine compliant equipment over 100 horsepower,~~ and also includes equipment idle time restrictions and engine maintenance provisions. ~~The Tier 2 standards include engine emission standards for NO_x plus non-methane hydrocarbons, CO, and PM emissions; while the Tier 3 standards further reduce the NO_x plus non-methane hydrocarbons emissions.~~ The ~~Tier 2 and~~ Tier 3 standards became effective for engine/equipment model years 2006~~2001~~ to 2008~~2003~~ ~~and models years 2006 to 2007, respectively,~~ for engines between 50~~100~~ and 750 horsepower.

Page 14 and 15 (shown as Page 2) Tables 6 and 7 and preceding text: Staff recommends that the duplicate Table 7 be deleted, all other later table number will have to be adjusted, and that the source for Table 6 be replaced with the source for Table 7 as follows:

Air Quality Table 6 summarizes the maximum (worst-case) estimated daily emissions for CECP. Maximum daily emissions for turbines are based on 6 hours of startup, 6 hours of shutdown, and 12 hours of normal operation.

Air Quality Table 6
CECP Worst-Case Hourly and Daily Emissions

	Hours	NOx	CO	VOC	SOx[a]	PM10	NH_3
Startup (lbs/hr)	6	69.2	545	15.5	4.40	9.50	14.01
Shutdown (lbs/hr)	6	47	286	8.2	4.40	9.50	14.01
Normal Operation (lbs/hr)	12	15.1	9.2	4.0	4.40	9.50	14.01
Emergency Fire Pump (lbs/hr)	1	2.08	0.24	0.05	0.00	0.035	0.00
Maximum (Single gas turbine, lbs/day)		877	5102	190	106	228	336
Maximum (Two gas turbines, lbs/day)		1,754	10205	380	211	456	672
Maximum (New Equipment, lbs/day)		1,756	10205	380	211	456	672

~~Source: CECP 2007a, Appendix 5.1B, Table 5.1B-2B and FDOC (SDAPCD 2009)~~
~~[a] SO_2 annual emissions are based on SDG&E tariff basis of 0.75 grains/100 dry standard cubic feet.~~

~~**AIR QUALITY Table 7** summarizes the maximum (worst-case) estimated daily emissions for CECP. Maximum daily emissions for turbines are based on 6 hours of startup, 6 hours of shutdown, and 12 hours of normal operation.~~

~~**Air Quality Table 7**~~
~~**CECP Worst-Case Hourly and Daily Emissions**~~

	~~Hours~~	~~NOx~~	~~CO~~	~~VOC~~	~~SOx[a]~~	~~PM10~~	~~NH_3~~
~~Startup (lbs/hr)~~	~~6~~	~~69.2~~	~~545~~	~~15.5~~	~~4.40~~	~~9.50~~	~~14.01~~
~~Shutdown (lbs/hr)~~	~~6~~	~~47~~	~~286~~	~~8.2~~	~~4.40~~	~~9.50~~	~~14.01~~
~~Normal Operation (lbs/hr)~~	~~12~~	~~15.1~~	~~9.2~~	~~4.0~~	~~4.40~~	~~9.50~~	~~14.01~~
~~Emergency Fire Pump (lbs/hr)~~	~~1~~	~~2.08~~	~~0.24~~	~~0.05~~	~~0.00~~	~~0.035~~	~~0.00~~
~~Maximum (Single gas turbine, lbs/day)~~		~~877~~	~~5102~~	~~190~~	~~106~~	~~228~~	~~336~~
~~Maximum (Two gas turbines, lbs/day)~~		~~1,754~~	~~10205~~	~~380~~	~~211~~	~~456~~	~~672~~
~~Maximum (New Equipment, lbs/day)~~		~~1,756~~	~~10205~~	~~380~~	~~211~~	~~456~~	~~672~~

Ex. 222, p. 4.1-27.
~~[a] SO_2 annual emissions are based on SDG&E tariff basis of 0.75 grains/100 dry standard cubic feet.~~

Page 17 (shown as Page 4) Table 11 and preceding text. Staff recommends the PMPD include the results of the District's 1-hour NO_2 modeling analysis. Please note that the Exhibit "TBD" needs to be given the exhibit number that is given to the District's modeling analysis.

The Applicant used the AERMOD model to estimate ambient impacts, and the SDAPCD completed additional modeling using AERMOD to assess compliance with the new federal 1-hour NO_2 standard. **Air Quality Table 10** below, summarizes the results of the modeling analysis with both turbine units operating. (Ex. 222, pp. 4.1-35 – 4.1-36; Ex. TBD.)

Air Quality Table 11
CECP Normal Gas Turbine Operating Impacts – Both CTGs, ($\mu g/m^3$)

Pollutant	Averaging Period	Project Impact ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	Limiting Standard ($\mu g/m^3$)	Type of Standard	Percent of Standard
NO_2	1 hour Federal	--	--	85.7[a]	100	NAAQS	86%
	1 hour State	13.3	152.6	165.9	339	CAAQS	49%
	Annual	0.1	22.8	22.9	57	CAAQS	40%
PM10	24 hour	1.2	57	58.2	50	CAAQS	117%
	Annual	0.1	24.2	24.3	20	CAAQS	122%
PM2.5	24 hour	1.2	37.7	38.9	35	NAAQS	111%
	Annual	0.1	12	12.1	12	CAAQS	101%
CO	1 hour	9.0	6,785	6,794	23,000	CAAQS	30%
	8 hour	1.9	4,011	4,013	10,000	CAAQS	40%
SO_2 [b]	1 hour	4.3	94.3	98.6	655	CAAQS	15%
	3 hour	2.0	84.9	86.9	1,300	NAAQS	7%
	24 hour	0.4	23.6	24.0	105	CAAQS	23%
	Annual	0.0	10.7	10.7	80	NAAQS	13%

Sources: Ex. 222, p. 4.1-36, Ex. (TBD)
[a] Represents the air quality standard basis of the three year average of the 98th percentile of maximum daily 1-hour values.

Page 20 (shown as Page 7) second to last paragraph: Staff recommends the following edit to note that costs for Carl Moyer increase over time.

If the Applicant chooses to use its currently owned PM10 credits to partially meet the Staff recommended offset liability, the Applicant's emission reduction fee for the remaining 13.1 tons of emissions would equal $251,520 based on the Carl Moyer Program Guideline cost effectiveness cap value at the time of evidentiary hearing, and the cost will increase over time as ARB periodically updates the cost effectiveness cap value.

Page 22 (shown as Page 9) Table 13 and preceding text. Staff recommends the PMPD include the results of the District's 1-hour NO_2 modeling analysis. Please note that the Exhibit "TBD" needs to be given the exhibit number that is given to the District's modeling analysis.

The Applicant used stack and building parameters and emission data for the existing Encina Power Plant, specifically boiler units 4 and 5 that would remain after construction of the project, and generally followed the same modeling procedures used for the CECP operating emissions modeling analysis, using the most recent version of AERMOD (Version 07026). The modeling assumed worst-case short-term emissions for the CECP (cold startup) and assumed full load emissions for the existing Encina Power Station boiler units 4 and 5 and peaking turbine. Additionally, the SDAPCD completed additional cumulative modeling using AERMOD to assess compliance with the new federal 1-hour NO_2 standard. The results of these~~this~~ modeling efforts, **Air Quality Table 13**, show that CECP, along with the existing Encina Power Station, would not contribute to new short-term AAQS violations for NO_2 or CO.

Air Quality Table 13
Cumulative Impacts Modeling Results (µg/m^3)

Pollutant	Averaging Period	Project Impact (µg/m^3)	Background (µg/m^3) [a]	Total Impact (µg/m^3)	Limiting Standard (µg/m^3)	Type of Standard	Percent of Standard
NO_2	1 hour Federal	--	--	88.3[d]	100	NAAQS	88%
	1 hour State	133.5	152.6	286.1	339	CAAQS	84%
	annual [b]	0.3	22.8	23.1	57	CAAQS	41%
PM10	24 hour [c]	7.1	57	64.1	50	CAAQS	128%
	annual	0.1	24.2	24.3	20	CAAQS	122%
PM2.5	24 hour [c]	7.1	37.7	44.8	35	NAAQS	128%
	annual	0.1	12	12.1	12	CAAQS	101%
CO	1 hour	3,228	6,785	10,013	23,000	CAAQS	44%
	8 hour	676	4,011	4,687	10,000	CAAQS	47%
SO_2	24 hour [c]	10.5	23.6	34.1	105	CAAQS	32%
	annual	0.1	10.7	10.8	80	NAAQS	14%

Sources: ~~CECP Cumulative Assessment (SR 2008f).~~Ex. 222, p 4.1-50; Ex. (TBD)
[a] Background values have been adjusted per staff recommended background concentrations.
[b] Annual NO2 impact has been multiplied by the U.S.EPA Ambient Ratio Method value of 0.75.
[c] These 24-hour values are all based on worst-case existing Encina Boilers firing oil, when firing natural gas the worst-case cumulative PM10/PM2.5 and SO2 impacts are 1.4 and 0.4 µg/m^3, respectively.
[d] Represents the air quality standard basis of the three year average of the 98th percentile of maximum daily 1-hour values.

Pages 29 and 30 (shown as Pages 16 and 17) – Staff Condition AQ-SC5: This condition has been updated, and approved by the Commission for several projects, since the time of preparation of the FSA and the evidentiary hearing. This condition update was based on the fact that requiring Tier 3 equipment, in place of Tier 2 equipment, would cause major reductions in NOx emissions and was feasible due to the fact that several years of Tier 3 model year equipment are now available. A similar update from Tier 1 to Tier 2 was made several years ago when enough time elapsed between the Tier 2 requirements to make their required use feasible. Staff believes that in order to maintain the CEQA significance findings for construction emissions, which are in large part based on the implementation of feasible mitigation, this condition needs to be updated to staff's current established standard as shown below:

AQ-SC5 Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a construction mitigation report that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction-related emissions. The following off-road diesel construction equipment mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**, and any deviation from the AQCMP mitigation measures shall require prior CPM notification and approval.

a. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

b. All construction diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the on-site AQCMM demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 3 engine is not available for any off-road equipment larger than 100 hp, that equipment shall be equipped with a Tier 2 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 2 levels unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is "not practical" for the following, as well as other, reasons.

1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or

2. The construction equipment is intended to be on site for 10 days or less.

3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not practical.

c. The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within 10 working days of the termination and that a replacement for the equipment item in question meeting the controls required in item "b" occurs within 10 days of termination of the use, if the equipment would be needed to continue working at this site for more than 15 days after the use of the retrofit control device is terminated, if one of the following conditions exists:

1. The use of the retrofit control device is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure.

2. The retrofit control device is causing or is reasonably expected to cause engine damage.

3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public.

4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

d. All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

e. All diesel heavy construction equipment shall not idle for more than five minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement.

f. Construction equipment will employ electric motors when feasible.

Verification: The AQCMM shall include in the Monthly Compliance Report the following to demonstrate control of diesel construction-related emissions:

A. A summary of all actions taken to control diesel construction related emissions;

B. A list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained; and

C. Any other documentation deemed necessary by the CPM, and the AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC5 Diesel-Fueled Engines Control: The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with the following mitigation measures for the purposes of controlling diesel construction-related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

A. All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur.

B. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

C. A good faith effort shall be made to find and use off-road construction diesel equipment that has a rating of 100 hp to 750 hp and that meets the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California Code of Regulations section 2423(b)(1). This good faith effort shall be documented with signed written correspondence by the appropriate construction contractors along with documented correspondence with at least two construction equipment rental firms.

D. All construction diesel engines, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California Code of Regulations section 2423(b)(1). The following exceptions for specific construction equipment items may be made on a case-by-case basis.

(1) Tier 1 equipment will be allowed on a case-by-case basis only when the project owner has documented that no Tier 2 equipment is available for a particular equipment type that must be used to complete the project's construction. This shall be documented with signed written correspondence by the appropriate construction contractors along with documented correspondence with at least two construction equipment rental firms.

(2) The construction equipment item is intended to be on site for five days or less.

(3) Equipment owned by specialty subcontractors may be granted an exemption, for single equipment items on a case-by-case basis, if it can be demonstrated that extreme financial hardship would occur if the specialty subcontractor had to rent replacement equipment, or if it can be demonstrated that a specialized equipment item is not available by rental.

A. All heavy earthmoving equipment and heavy duty construction-related trucks with engines meeting the requirements of (c) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

~~B. All diesel heavy construction equipment shall not remain running at idle for more than five minutes, to the extent practical.~~

~~C. Construction equipment will employ electric motors when feasible.~~

~~**Verification:** The project owner shall include in the MCR (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of all diesel fuel purchase records, (3) a list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained, and (4) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.~~

Pages 34 through 66 (shown as Pages 21 through 53) – Various District Conditions:
Staff provided an errata providing minor editing revisions to several of the District conditions as requested by the applicant and otherwise found necessary by staff after additional continuity review. These errata were not implemented in the PMPD. Staff requests that the PMPD conditions include the revisions provided in the errata, which are as follows:

AQ-18 Turbine A is the combustion turbine as described on Applications No. 985745 or No.~~,~~ 985747, as applicable, that first completes its shakedown period. If both turbines complete their shakedown period on the same date, then Turbine A is the turbine described on Application No. 985745. [Rules 20.1(c)(16) and 21]

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-19 Turbine B is the combustion turbine as described on Application<u>s</u> No. 985745 or No. 985747, as applicable, that last completes its shakedown period. If both turbines complete their shakedown period on the same date, then Turbine B is the turbine described on Application No. 985747. [Rules 20.1(c)(16) and 21]

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-20 Low load operation is a period of time that begins when the gross electrical output (load) of the combustion turbine is reduced below 114 MW and that ends 10 consecutive minutes after the combustion turbine load exceeds 114 MW, provided that fuel is continuously combusted during the entire period and one or more clock hour concentration emission limits specified in this permit are exceeded as a result of the low-load operation. For each combustion turbine, periods of operation at low load shall not exceed 130 unit operating minutes in any calendar day nor an aggregate of 780 unit operating minutes in any calendar year. No low load operation period shall begin during a startup period. [Rule 20.3(d)(1)]

Verification: The project owner shall submit to the CPM the ~~engine~~ <u>gas turbine</u> operating data demonstrating compliance with this condition on request and shall make the

site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-57 A renewal source test and a NOx and CO Relative Accuracy Test Audit (RATA) shall be periodically conducted on each combustion turbine to demonstrate compliance with the NOx, CO, VOC, PM10, and ammonia emission standards of this permit and applicable relative accuracy requirements for the CEMS systems using District approved methods. The renewal source test and the NOx and CO RATAs shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR75, Appendix B, Sections 2.3.1 and 2.3.3. The renewal source test shall be conducted in accordance with a protocol complying with all the applicable requirements of the source test protocol for the Initial Emissions Source Test. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]

Verification: The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in Conditions **AQ-53** and **AQ-54**.

AQ-63 The project owner shall comply with the applicable continuous emission monitoring requirements of 40 CFR Part 75. [40 CFR Part 75]

Verification: The project owner shall maintain a copy of the CEMS protocol required by **AQ-65~~64~~** on site and provide it, other CEMS data, and the CEMS for inspection on request by representatives of the District, ARB, and the Energy Commission.

AQ-64 A continuous emission monitoring system (CEMS) shall be installed on each combustion turbine and properly maintained and calibrated to measure, calculate, and record the following, in accordance with the District approved CEMS protocol:

A. Hourly average(s) concentration of oxides of nitrogen (NOx~~X~~) uncorrected and corrected to 15 percent oxygen, in parts per million (ppmvd), necessary to demonstrate compliance with the NOx limits of this permit;

B. Hourly average concentration of carbon monoxide (CO) uncorrected and corrected to 15 percent oxygen, in parts per million (ppmvd), necessary to demonstrate compliance with the CO limits of this permit;

C. Percent oxygen (O_2) in the exhaust gas for each unit operating minute;

D. Average concentration of oxides of nitrogen (NOx) for each continuous rolling 3-hour period, in parts per million (ppmv) corrected to 15 percent oxygen;

E. Hourly mass emissions of oxides of nitrogen (NOx), in pounds;

F. Cumulative mass emissions of oxides of nitrogen (NOx) in each startup and shutdown period, in pounds;

G. Daily mass emissions of oxides of nitrogen (NOx), in pounds;

H. Calendar monthly mass emissions of oxides of nitrogen (NOx), in pounds;

I. Rolling 30-unit-operating-day average concentration of oxides of nitrogen (NOx) corrected to 15 percent oxygen, in parts per million (ppmvd);

J. Rolling 30-unit-operating-day average oxides of nitrogen (NOx) emission rate, in pounds per megawatt-hour (MWh)~~.~~;

K. Calendar quarter, calendar year, and rolling 12-calendar-month period mass emissions of oxides of nitrogen (NOx), in tons;

L. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds;

M. Hourly mass emissions of carbon monoxide (CO), in pounds;

N. Daily mass emission of carbon monoxide (CO), in pounds;

O. Calendar monthly mass emission of carbon monoxide (CO), in pounds;

P. Rolling 12-calendar-month period mass emission of carbon monoxide (CO), in tons;

Q. Average concentration of oxides of nitrogen (NOx) and carbon monoxide (CO) uncorrected and corrected to 15 percent oxygen, in parts per million (ppmvd), during each unit operating minute;

R. Average emission rate in pounds per hour of oxides of nitrogen (NOx) and carbon monoxide (CO) during each unit operating minute.

[Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]

Verification: The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by **AQ-65~~64~~**, which includes description of the methods of compliance with the requirements of this condition. The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-68 The oxides of nitrogen (NOx) and oxygen (O_2) components of the CEMS shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of sections 75.10 and 75.12 of title 40, Code of Federal Regulations Part 75 (40 CFR 75), the performance specifications of Appendix A of 40 CFR 75, the quality assurance procedures of Appendix B of 40 CFR 75 and the CEMS protocol approved by the District. The carbon monoxide (CO) components of the CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit, and the CEMS protocol approved by the District. [Rule 69.3, 69.3.1 and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]

Verification: The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by **AQ-65~~64~~**, which includes description of the methods of compliance with the requirements of this condition. The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-75 Fuel flowmeters shall be installed and maintained to measure the fuel flow rate, corrected for temperature and pressure, to each combustion turbine. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, and Section 2.1.6. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part~~k~~ 60 Subpart KKKK, and 40 CFR Part 75]

Verification: The project owner shall submit to the CPM the natural gas usage data from the fuel flow meters as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-87 For each calendar month and each rolling 12-calendar-month period, the project owner shall maintain records on a calendar monthly basis, of aggregate mass emissions of NOx (calculated as NO_2), CO, PM10, and PM2.5, in tons, for the emission units described in District Permits to Operate No. 791, 792, and 793. Ther~~r~~se records shall be made available for inspection within 15 calendar days after the end of each calendar month. [Rules 20.3(d)(3), 20.3(d)(8) and 21]

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-89 For each combustion turbine, the project owner shall submit the following notifications to the District and U.S. EPA, Region IX:

a. A notification in accordance with 40 CFR Section 60.7(a)(1) delivered or postmarked not later than 30 calendar days after construction has commenced;

b. A notification in accordance with 40 CFR Section 60.7-(a)(3) delivered or postmarked within 15 calendar days after initial startup; and

c. An Initial Notification in accordance with 40 CFR Section 63.6145(c) and 40 CFR Section 63.9(b)(2) submitted no later than 120 calendar days after the initial startup of the turbine.

In addition, the project owner~~applicant~~ shall notify the District when: (1) construction is complete by submitting a Construction Completion Notice before operating any unit that is the subject of this permit, (2) each combustion turbine first combusts fuel by submitting a First Fuel Fire Notice within five calendar days of the initial operation of the unit, and (3) each combustion turbine first generates electrical power that is sold by providing written notice within 5 days of this event. [Rules 24 and 21 and 40 CFR Part 75, 40 CFR Part 60 Subpart KKKK, 40 CFR Part §60.7, 40 CFR Part 63 Subpart YYYY, and 40 CFR Part §63.9]

Verification: The project owner shall provide notification to the District and U.S. EPA Region IX as required by this condition and shall provide copies of these notifications as part of the final monthly commissioning status reports (**AQ-80**) due the month after the notifications are sent.

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 *CARLSBAD ENERGY CENTER PROJECT*

Docket No. 07-AFC-6
PROOF OF SERVICE
(Revised 5/18/2011)

APPLICANT
Jennifer Hein
George Piantka, PE.
NRG Energy, Inc., West Region
5790 Fleet Street, Ste. 200
Carlsbad, CA 92008
jennifer.hein@nrgenergy.com
george.piantka@nrgenergy.com

APPLICANT'S CONSULTANTS
Robert Mason, Project Manager
CH2M Hill, Inc.
6 Hutton Centre Drive, Ste. 700
Santa Ana, CA 92707
Robert.Mason@ch2m.com

Megan Sebra
CH2M Hill, Inc.
2485 Natomas Park Drive, Ste. 600
Sacramento, CA 95833
Megan.Sebra@ch2m.com

COUNSEL FOR APPLICANT
John A. McKinsey
Stoel Rives, LLP
500 Capitol Mall, Suite 1600
Sacramento, CA 95814
jamckinsey@stoel.com

INTERESTED AGENCIES
California ISO
E-mail Preferred
e-recipient@caiso.com

INTERVENORS
Terramar Association
Kerry Siekmann & Catherine Miller
5239 El Arbol
Carlsbad, CA 92008
siekmann1@att.net

City of Carlsbad
South Carlsbad Coastal
Redevelopment Agency
Allan J. Thompson
21 "C" Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

City of Carlsbad
South Carlsbad Coastal
Redevelopment Agency
Joseph Garuba,
Municipals Project Manager
Ronald R. Ball, Esq., City Attorney
1200 Carlsbad Village Drive
Carlsbad, CA 92008
E-mail Preferred
Joe.Garuba@carlsbadca.gov
ron.ball@carlsbadca.gov

California Unions for Reliable Energy (CURE)
Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
gsmith@adamsbroadwell.com
mdjoseph@adamsbroadwell.com

Center for Biological Diversity
c/o William B. Rostov
EARTH JUSTICE
426 17th Street, 5th Floor
Oakland, CA 94612
wrostov@earthjustice.org

Power of Vision
Julie Baker & Arnold Roe, Ph.D.
4213 Sunnyhill Drive
Carlsbad, California 92013
powerofvision@roadrunner.com

Rob Simpson
Environmental Consultant
27126 Grandview Avenue
Hayward, CA 94542
rob@redwoodrob.com

ENERGY COMMISSION
JAMES D. BOYD
Vice Chair and Presiding Member
jboyd@energy.state.ca.us

Tim Olson
Adviser to Vice Chair Boyd
tolson@energy.state.ca.us

Paul Kramer
Hearing Officer
pkramer@energy.state.ca.us

Mike Monasmith
Siting Project Manager
mmonasmi@energy.state.ca.us

Dick Ratliff
Staff Counsel
dratliff@energy.state.ca.us

Jennifer Jennings
Public Adviser's Office
E-mail Preferred
publicadviser@energy.state.ca.us

*indicates change

DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on June 8, 2011, I served and filed copies of the attached CEC Staff's Response and Comments on PMPD. 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: [http://www.energy.ca.gov/sitingcases/carlsbad/index.html].

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:

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

____ by personal delivery;

__x__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__x__ 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. 07-AFC-6
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, 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.

Originally Signed by
Maria Santourdjian