STOEL RIVES LLP
ATTORNEYS AT LAW

980 Ninth Street, Suite 1900
Sacramento, California 95814
main 916.447.0700
fax 916.447.4781
www.stoel.com

KIMBERLY HELLWIG
*Direct (916) 319-4742*
kjhellwig@stoel.com

October 14, 2008

DOCKET
07-AFC-6
DATE OCT 14 2008
RECD. OCT 14 2008

**VIA HAND DELIVERY AND PER PROOF OF SERVICE**

Mr. Mike Monasmith
Siting Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

**Re: Carlsbad Energy Center Project (07-AFC-6)**
**City Data Responses, Set 3B**

Dear Mr. Monasmith:

On behalf of Carlsbad Energy Center LLC, please find enclosed herewith the requisite paper copies of and one (1) CD-Rom containing responses to the California Energy Commission Staff's Data Responses, Set 3B (#63-65, 72-73, 84-86, 94, 115, 117, 118, 126 and 129-132) related to the Carlsbad Energy Center Project. These responses are also being provided to the parties pursuant to the attached proof of service.

Should you have any questions regarding this submittal, please feel free to contact John McKinsey, Robert Mason, or me.

Respectfully submitted,

Kimberly J. Hellwig
Senior Paralegal

KJH:kjh
Enclosures
cc: See Attached Proof of Service (via email and/or US Mail)

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

| APPLICATION FOR CERTIFICATION FOR THE *CARLSBAD ENERGY CENTER PROJECT* | Docket No. 07-AFC-6 PROOF OF SERVICE (Revised 9/10/2008) |
|---|---|

## Carlsbad Energy Center Project (07-AFC-6)
## Letters of Support – Supervisor Slater-Price & South Vista Communities

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-6
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512
docket@energy.state.ca.us

**APPLICANT**

David Lloyd
Carlsbad Energy Center, LLC
1817 Aston Avenue, Suite 104
Carlsbad, CA 92008
David.Lloyd@nrgenergy.com

Tim Hemig, Vice President
Carlsbad Energy Center, LLC
1817 Aston Avenue, Suite 104
Carlsbad, CA 92008
Tim.Hemig@nrgenergy.com

**APPLICANT'S CONSULTANTS**

Robert Mason, Project Manager
CH2M Hill, Inc.
3 Hutton Centre Drive, Ste. 200
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
980 Ninth Street, Ste. 1900
Sacramento, CA 95814
jamckinsey@stoel.com

**INTERESTED AGENCIES**

California ISO
P.O. Box 639014
Folsom, CA 95763-9014
e-recipient@caiso.com

City of Carlsbad Joseph Garuba,
Municipals Project Manager
Ron Ball, Esq., City Attorney
1200 Carlsbad Village Drive
Carlsbad, CA 92008
jgaru@ci.carlsbad.ca.us
rball@ci.carlsbad.ca.us

Allan J Thompson Attorney for the City
21 "C" Orinda Way #314
Orinda, CA 94563

**INTERVENORS**

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

Center for Biological Diversity
c/o William B. Rostove
EARTHJUSTICE
425 17th Street, 5th Floor
Oakland, CA 94612
wrostov@earthjustice.org

**ENERGY COMMISSION**

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

Public Advisor's Office
pao@energy.state.ca.us

JAMES D. BOYD
Commissioner and Presiding Member
jboyd@energy.state.ca.us

KAREN DOUGLAS
Commissioner and Associate Member
kldougla@energy.state.ca.us

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

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

## DECLARATION OF SERVICE

I, Elizabeth Hecox, declare that on October 14, 2008, I deposited copies of the attached document in the United States mail at Sacramento, California, with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

*OR*

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

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

Elizabeth Hecox

Elizabeth Hecox

# Carlsbad Energy Center Project

(07-AFC-6)

# City Data Responses, Set 3B

**(Response to City Data Requests 63 – 65, 72 - 73, 84 – 86, 94, 115, 117, 118, 126 and 129 - 132)**

Submitted to

**California Energy Commission**

Submitted by

**Carlsbad Energy Center LLC**

October 2008

With Assistance from

**CH2MHILL**
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833

Shaw™ Stone & Webster, Inc.

# Contents


| Section | Page |
|---|---|
| Introduction | 1 |
| Construction (63–65) | 2 |
| Air Quality (72–73) | 3 |
| Biological Resources (84–86, 94) | 5 |
| Waste Management (115) | 9 |
| Water Resources (117, 118, 126, 129–132) | 11 |

# Introduction

In accordance with the California Energy Commission's (CEC's) letter of September 19, 2008, attached are Carlsbad Energy Center LLC's (Applicant's) responses to certain data requests from the City of Carlsbad's (City) Data Requests Set 3, dated September 11, 2008, regarding the Carlsbad Energy Center Project (CECP) (07-AFC-6), for which CEC staff has requested input from the Applicant regarding the Carlsbad Energy Center Project (CECP) (07-AFC-6). Specifically, CEC staff requested input from the Applicant on the following data requests from the City's Data Request Set 3: 63 through 65, 84 through 86, 94, 115, 117, 118, 126, and 129 through 132. The responses are grouped by individual discipline or topic area and presented in the same order as the City presented them. Revised graphics are numbered in reference to the Data Request number. For example, the figure used in response to City Data Request 64 is designated as Figure City DR64-1.

The Applicant looks forward to working cooperatively with CEC Staff and the City as the CECP proceeds through the CEC siting process. We trust that these responses, as requested by CEC regarding certain City Data Requests provide the input needed by CEC staff. .

# Construction (63–65)

## Background

The Applicant states that laydown areas described in the AFC are applicable to project enhancements and refinements.

## City Data Request

63. Confirm that proposed laydown areas account for new SDG&E substation, ocean water purification system and tank removal.

**Response:**

The construction laydown areas shown of Revised Figure 2.1-1 CECP Plot Plan in the Project Enhancement and Refinements document are for construction of the power block, and also for demolition of Tanks 5, 6 and 7 and construction of the ocean water purification system to support CECP. The schedule for CECP (see Revised Figure 1.4a in the Project Enhancements and Refinements document) is staggered so these construction laydown areas are sufficient to support construction of the various components of the CECP.

The new SDG&E 230 kV substation will be constructed by SDG&E within their parcel. There is sufficient area within the SDG&E parcel for a construction laydown area for the new substation.

## City Data Request

64. Provide aerial photographs illustrating project components along with temporary laydown/staging areas required.

**Response:**

See Figure City DR 64 for an aerial photograph that shows the CECP Plot Plan superimposed onto the aerial photograph. The CECP Plot Plan shows the construction laydown areas for CECP.

## City Data Request

65. Provide coordinated construction schedule and laydown schematic for the CECP, the CSDP and the sewer interceptor.

**Response:**

The Carlsbad Seawater Desalination Project (CSDP) and Vista/Carlsbad Interceptor Sewer Improvement project are being proposed by others. The Applicant does not have the construction schedule or construction laydown information for CSDP or the sewer interceptor project.

# Air Quality (72–73)

## Background

The Revised Table 5.1-1 and 5.1-2 illustrate the maximum emissions during construction of the proposed project.

## City Data Request

72. Identify and evaluate any cumulative air quality impacts. Will the CSDP and the Sewer Interceptor be built at the same time as the proposed project?

**Response:**

The Carlsbad Seawater Desalination Project (CSDP) and Vista/Carlsbad Interceptor Sewer Improvement project are projects planned or proposed by others. The Applicant does not have the construction schedule for CSDP or the sewer interceptor project. Additionally, conducting cumulative construction air emissions impacts analysis has not been required by the CEC, nor is it required under California Environmental Quality Act (CEQA). This is primarily because conducting an analysis of the combined construction air emissions and the effects of construction air emissions from multiple projects is highly speculative, and requires numerous assumptions most of which are not probable. The most challenging issue is the matter of timing. Because construction impacts are temporary and often short-term, and because the actual dates of construction are essentially unknown until immediately prior to the commencement of construction, it is virtually impossible to know the extent to which one project's construction air emissions will overlap with another. Compounding the issue is that many projects under CEQA are not obligated to estimate construction impact to the extent of, and in the same manner of power plant projects under the Warren Alquist Act. Instead most projects under CEQA only present a general summary of effects in their area or show emissions are less than significance thresholds to demonstrate compliance with standards.

For the above reasons, the Applicant objects to this data request in general as being not required, unnecessary, and not likely to lead to useful information.

## Background

Section 5.14.4.1 states that as part of the tank demolition and soil remediation activities, approximately 7,500 cubic yards of soil and 3,800 tons of metal and debris will be removed to an offsite facility. Based on a typical load value of 20 cubic yards per truck, this would correspond to approximately 565 round truck trips for such removal.

## City Data Request

73. Does the original air quality evaluation include these truck trips? If not, were they included in the updated construction emission values?

**Response:**

The maximum annual construction emissions levels are shown on Table 5.1-2 of the Project Enhancements and Refinements (PEAR). These emission estimates include the emissions associated with truck hauling. The detailed construction emission calculations are included as Appendix 5.1E of the PEAR with the detailed truck hauling emissions calculations shown on Table 5.1E-12. As shown on Table 5.1E-12, the maximum annual truck hauling emissions are based 3,313 truck trips/year (these are round trips). This corresponds to the expected number of truck trips during the peak 12-month construction emission period which is from Month 5 to Month 16 of the construction schedule (overall peak annual emissions for all construction related activities). Because the tank demolition/soil remediation activities occur during Months 1 to 3 of the construction schedule, the emissions from these activities including truck hauling do not fall within the peak 12-month construction emission period. Regardless of this fact, the 3,313 truck trips/year averages out to approximately 276 truck trips per month. This monthly level is more then sufficient to account for the 565 truck trips associated with tank demolition and soil remediation that will over a three month period as discussed in the PEAR. Consequently, the truck hauling emissions during the tank demolition/soil remediation activities are addressed in the analysis included in the PEAR.

With regards to rail hauling, for emission calculation purposes in the PEAR, it is assumed that the tank demolition/soil remediation scrap metal, soil, and debris hauling will be by truck rather then by rail. The reason for this assumption is that on a fleet-average lb/ton-mile basis truck hauling has higher emissions than rail hauling. Consequently, the assumption that the tank demolition/soil remediation material hauling will be done by truck rather than rail results in a worst case emissions estimate for this activity. There will be rail hauling for other construction activities that occur during the 12-month peak period and these emissions are shown in the annual emission summary table in the PEAR (Table 5.1-2) and in the detailed emission summary table (Table 5.1E1-14).

# Biological Resources (84–86, 94)

## Background

The primary basis for concluding that the ocean-water purification system will not result in adverse effects on marine organisms appears to be reliance on a "net reduction" in impingement and entrainment effects related to the retirement of the Encina Power Station (EPS) generating units 1, 2 and 3. Further, Appendix 5.2C, on page 1, states: "However, taking into consideration that the CECP will withdraw seawater from the power station cooling water flow, and would require withdrawals independently of EPS units 4&5, this assessment has been conducted with the intent of Section 316(b)". It appears that based on these facts, the CECP represents a new power plant facility that relies upon a CWIS and withdraws quantities of seawater in excess of 2 MGD, and is therefore subject to compliance with 316(b) Phase I requirements, including mitigation.

## City Data Request

84. Explain how the CECP complies with the 316(b) Phase I regulations, considering the fact that the discussion in the application presents a clear reliance of the CECP on the Cooling Water Intake Structure (CWIS) for the EPS, and suggests that the CECP will continue to rely on the CWIS even without EPS operation?

**Response:**

The CECP is not subject to Clean Water Act Section 316(b) regulations. Section 316(b) Phase I regulations apply to a new power plant facility that (1) uses a cooling water intake structure, (2) uses at least 25 percent of the water withdrawn with the structure for cooling purposes, and (3) has a design intake flow greater than 2 MGD. (40 Code Fed. Reg. § 125.81(a).) The CECP proposes to utilize the existing Encina Power Station cooling water discharge conduit, and not the intake structure. The discharge conduit will be used to supply ocean-water purification make-up water for the CECP steam production process and for the discharge of the brine from the RO process that produces the high quality industrial make-up water for the CECP. The ocean-water purification system will not be used for cooling purposes at the CECP.

## Background

Section 5.2.4.2 of the CECP Project Enhancements and Refinements document (page 5-10) states that "the retirement of EPS Generating Units 1, 2, and 3, are considered an integral part of compliance with Clean Water Act Section 316(b) at EPS". However, the analysis fails to explain how the CECP itself complies with 316(b) requirements. Based on the facts presented in 5.2-2, above, the CECP would be subject to the much stricter Phase I 316(b) requirements, since it is a new power plant. However, no analysis of compliance with 316(b) is provided.

## City Data Request

85. Explain how the analysis can assume "credit" for 316(b) compliance, when regulatory requirements for the new activities that are subject to 316(b) are not addressed.

**Response:**

The anticipated Phase II 316(b) compliance plan for the Encina Power Station is to replace the existing once-through cooled steam boiler units with highly efficient air-cooled combined cycle units. The CECP is phase one of this plan. While California authorities are still developing new state 316(b) requirements, it is expected that the CECP air-cooled replacement units will allow Encina to conform to the state's requirements for Phase II 316(b) compliance by exceeding the estimated requirement for reduction of intake volumes of approximately 60 to 90 percent that is expected to be part of the state's requirements for Phase II 316(b) compliance. As explained in Data Response 84 above, the Phase I 316(b) requirements for new facilities do not apply to the CECP.

Because the City of Carlsbad has taken the position that it does not have the capacity to provide the requested reclaimed water supply for the CECP, the ocean-water purification system is proposed as a feasible means to accomplish the air-cooled replacement plan. The 4.32 MGD maximum flow for the ocean-water purification system will allow for permanent retirement of the Units 1, 2, & 3 intake flow with a maximum volume of 224.64 MGD, resulting in a 98 percent reduction from the permitted flows for Units 1, 2, & 3. This far exceeds the expected flow reduction requirement being considered in the state's policy for 316(b) Phase II compliance. Further, it is undisputed that nearly all local, regional, state, and federal energy and environmental agencies and stakeholders support air-cooled replacement of aging, once-through cooled power plants as the most preferred approach to 316(b) compliance.

## Background

The analysis (Appendix 5.2D at S-1) inappropriately applies the analysis and mitigation standards of Phase II 316(b). As noted above, the CECP is a new power plant, and therefore is subject to the 316(b) Phase I regulations pertaining to new power plants. Notwithstanding that fact, the analysis concludes that the CECP would not result in adverse environmental impacts (AEI), and therefore would not be subject to Best Technology Available (BTA), which would presumably involve some level of mitigation, since as stated in the application materials, the impact on marine organisms is unavoidable, and therefore design modifications are not available to reduce or avoid impacts. However, as support for the conclusion that the CECP would not result in AEI, the analysis (Appendix 5.2D at S-1) relies in part on studies that found no AEI at EPS, because the studies "attributed the absence of large effects for most species to compensatory mechanisms that are probably acting on the populations at some level". Therefore, the conclusion that there would be no AEI for the CECP depends upon compensatory measures that would not be in place without the operation of the EPS. However, the analysis of impingement and entrainment effects includes a CECP operating scenario with no EPS operation, as noted in 5.2-2, above. Therefore, it is reasonable to conclude that once the EPS discontinues operation, the compensatory measures that are relied upon for a finding of no AEI for the CECP would no longer be available.

## City Data Request

86. Explain whether the analysis assumes continuation of the existing EPS compensatory measures pursuant to the existing 316(b) permit for the EPS. If so, please provide assurances that such commitments will permanently tied to the CECP (e.g. as conditions of its 316(b) permit or through another mechanism). If no assurances are to be provided, please revise the analysis to account for the effects of discontinuation of the compensatory measures currently provided by EPS.

**Response:**

As discussed in Data Responses 84 and 85 above, neither Phase I nor Phase II 316(b) requirements apply to the air-cooled CECP. The existing Encina Power Station is subject to Phase II 316(b) requirements and has collected comprehensive impingement and entrainment information over the years that was used as part of the analysis included in the Project Enhancements and Refinements (PEAR) to evaluate the potential entrainment effects of the ocean-water purification system. The PEAR evaluated potential impacts from the ocean-water purification system on a stand-alone basis, as well as with the continued operation of Encina Units 4 & 5 and new operation of the Carlsbad Seawater Desalination Project (CSDP). In all cases, the level of impacts to marine resource attributed to the maximum 4.32 MGD ocean-water purification intake flow did not constitute an adverse environmental impact. This is based on the fact that losses from the intake of larval populations of the most abundant fishes in the source water (gobies and combtooth blennies) were less than 0.3 percent and also on the fact that the much larger intake volume for the existing Encina plant has not adversely affected the adult populations of these fishes in Agua Hedionda Lagoon.

The absence of any apparent effects on the adult populations is likely caused by compensatory mechanisms acting upon the biological populations, not "*compensatory measures that would not be in place without the operation of the EPS*" as stated in the data request. Based on the results of studies done in Agua Hedionda Lagoon as part of the entrainment study, the most likely compensatory mechanism acting upon the goby population is density dependent mortality at the age when young juvenile fishes are recruiting into the adult habitat. The physically small area of the lagoon limits the availability of adult habitat and results in higher mortality on juvenile fishes that are unable to establish themselves in desirable adult habitat. The existing operation of Encina does not affect this limited available adult habitat.

Additionally, once the CSDP becomes operational, the intake flow and expected level of larval losses from the CECP ocean-water purification system would be on the order of 1.4 percent of the entrainment mortality attributed to the 304 MGD intake flow of the CSDP. The City of Carlsbad's EIR for the CSDP found that the entrainment and impingement impacts from the CSDP's higher 304 MGD intake were less than significant. An impact that is 1.4 percent of the CSDP's is similarly less than significant.

## Background

The City notes that the ion exchange system will result in discharges to the ocean through the existing across-the-beach ocean outfall system. The City is concerned with the reliability of this system.

## City Data Request

94. Identify how much storage will be available if the first-stage reverse osmosis system cannot, for any reason, deliver the brine to the ocean outfall.

**Background Correction:**

In the Background to its Data Requests 90 -94, the City incorrectly states that "*...the ion exchange system will result in discharges to the ocean through the existing across-the-beach ocean outfall system.*" As discussed in Section 2.3.2 of the Project Enhancements and Refinements (PEAR), the ion exchange system of the CECP ocean water purification system will be self contained in an enclosed trailer and there is no onsite discharge from this component of the system. It is the seawater brine from the reverse osmosis (R/O) component of the ocean water purification system that will be discharged to the ocean through the existing Encina Power Station's ocean water discharge channel.

**Response:**

The R/O brine discharge will be regulated and permitted by the San Diego Regional Water Quality Control Board (RWQCB) in accordance with NPDES requirements. Based on the following factors and the design of the system, no storage prior to discharge is expected to be required:

1. Unlike the CSDP, the CECP is not proposing to add chemicals or additional waste streams to the R/O brine reject stream prior to discharge; therefore the CECP's R/O brine reject stream will consist only of concentrated seawater;

2. The CECP is not proposing any pre-treatment of the R/O brine waste stream; the brine will be mixed with Encina Power Station's existing ocean cooling water at the point of discharge into the Station's discharge channel. There is no reason to anticipate the need to temporarily retain the R/O brine on site prior to discharge, presumably to verify pretreatment conditions;

3. The Dr. Jenkins study referenced in the CECP PEAR and included in the Report of Waste Discharge (ROWD) submitted to the RWQCB, as well as the CSDP's EIR, demonstrate that the increase in salinity of R/O brine associated with the discharge from the CECP's ocean water purification system and the CSDP will not adversely impact the receiving waters; and

4. The RWQCB has not required onsite storage capacity for the CSDP's R/O brine discharge in that facility's 2006 NPDES permit.

# Waste Management (115)

## Background

Section 5.14.4.3 states that waste streams generated during construction of the ocean-water purification system "will be similar to the types of wastes described in Section 5.14 of the AFC". Therefore, the document concludes that no additional analysis is required.

## City Data Request

115. Include sufficient detail and analysis within the Project Enhancement and Refinement Document regarding the construction of the new ocean-water purification system.

**Response:**

Construction of the first stage water treatment systems to achieve ultra filtration and dewatering (see figure 2.2-6A) described in section 5.14.4.4 will be of similar design as the water treatment system discussed in the AFC. It will consist of a combination of trailer mounted equipment for off site regeneration and maintenance by the water treatment vendor and fixed plant equipment to deliver and return the liquids. As the water treatment system is trailer mounted, construction consists primarily of concrete pads for the trailer. The fixed plant equipment and the storage tanks are of similar design and construction as the water treatment system discussed in the AFC. Design and construction practices and materials will be of similar to that discussed in the AFC, and will be suitable for the media being processed, stored and transported.

Types of wastes and quantities anticipated during construction of the CECP inclusive of the proposed ocean water purification system are referenced in AFC Table 5.14-2; they include concrete, asphalt, high-density polyethylene (HDPE) piping, electrical connection/trims, and soil from foundation and trench excavations, as necessary. The types of wastes and quantities are expected to be the similar for the ocean water purification system alternative (two pipe lines from the Encina intake area to the CECP site) as compared to Encina Water Authority supplied reclaimed water line (a single pipe line from Cannon Road to the CECP site) considered in the AFC.

The ocean water purification system piping will be located within the existing NRG property and the amount of trenching will be limited to maintaining traffic access to the existing plant buildings. Two new high-density polyethylene (HDPE) pipelines - for supply and for return - will be routed from the new pump house near the intake structure to the CECP site, through the existing pipe tunnel under the railroad tracks to the CECP site. An inspection of the existing pipe tunnel has determined that there is sufficient room within the tunnel for the two new pipelines. The majority of the piping will be above grade on concrete pads, or "sleepers" to minimize trenching; therefore, soil disturbances will be limited. This construction method is also consistent with the AFC section 5.14 information. Electrical power and controls for the pump house will come from the existing power plant.

The installation of the ocean water purification system does increase the footprint of the onsite construction of the ocean water supply and liquid return system creating additional quantities of materials used for the final installation. But the additional footprint and materials for the onsite industrial process water supply would be off set by the shorter water supply pipe run as compared to the Encina Water Authority supplied reclaim water supply lines outlined in the AFC. Low impact construction techniques like maximizing above ground piping on sleepers, reusing the piping tunnel under the railroad tracks, powering and controlling pumps closest to the available source and paralleling any additional piping in with the existing utilities inside the power block area will be implemented.

The majority of the equipment associated with water treatment system inside the power block, with the exception of the storage tanks and pumps, will be trailer mounted and provided by the water treatment supplier vendor. Any construction waste associated with the fabrication of the trailers will be managed off site.

# Water Resources (117, 118, 126, 129 – 132)

## Background

Section 5.15.3.1 concludes that as part of the new project components, an additional 13.5 acres of land will be disturbed, but that by updating the original SWPPP and implementation of appropriate BMPs, this additional land disturbance will have no impact during either construction or operations.

## City Data Request

117. The Applicant should include additional detail and support to illustrate how the inclusion of 13.5 acres to the original acres evaluated in the AFC will be mitigated to a less than significant level.

**Response:**

The 13.5 acres of additional land referenced in the PEAR refers to the proposed new 230 kV switchyard that will be constructed, owned and operated by SDG&E. The Construction Storm Water Pollution Prevention Plan (SWPPP) docketed with the CEC in April 2008 included all appropriate BMPs to be implemented during construction. Implementation of the SWPPP and appropriate BMPs will mitigate potential construction associated impacts to less than significance. See Table 7 of the April 2008 Construction SWPPP: *BMP Phasing Schedule* for a summary of the BMPs to be implemented and maintained during construction of the CECP. These BMPs are also appropriate for the construction of the new SDG&E 230 kV switchyard.

## Background

The document states that the waste discharge from the reverse osmosis stream will fall within acceptable salinity discharge levels.

## City Data Request

118. Are salinity levels the only potential contaminants that may be present in the reject stream? The Project Enhancement and Refinement Document should provide additional detail regarding the substance of the reverse osmosis reject stream.

**Response:**

Unlike the CSDP, the CECP is not proposing to add chemicals or additional waste streams to the R/O brine reject stream prior to discharge. The CECP R/O brine stream will only consist of concentrated seawater. The individual constituents that make up the seawater's salinity will be concentrated in the R/O brine discharge. The individual constituent concentrations in the R/O brine were determined based on the intake water's quality. This information was provided in the CECP Report of Waste Discharge NPDES Application, submitted to the Regional Board on August 15, 2008, a copy of which was docketed with the CEC.

## Background

The description of the ocean water to be used for the water purification system (Section 2.3.2) states that the maximum daily amount of water will be 1.22 million gallons/day with power augmentation. With dilution mixing, the total daily amount will be 4.32 million gallons per day. The City is concerned that this is a true reflection of the future operating levels.

## City Data Request

126. Please confirm that these calculations are for a 24-hour day (operational day w/8 hours of P.A.).

**Response:**

Yes, these calculations are for a 24-hour day operation.

The daily intake volumes are based on 3,000-gallons-per-minute [gpm] intake flow (i.e., 4.32 mgd). The 1.22 mgd, or 848 gpm represents operating 24 hours/day, 8 hours with PAG and 16 hours without PAG (refer to Revised Figure 2.2-6A: *CECP Water Balance with 8 Hr/Day Power Augmentation*).

## Background

The description of the ion exchange trailer system is very important, as there appears to be no back-up supply of water for the CECP. The City is interested in the following:

## City Data Request

129. Please confirm that the figures on table 2.1 reflect 24-hour day operation. If not, please provide this information.

**Response:**

The information in Table 2.1 of the PEAR correctly reflects 24-hour per day operations.

## City Data Request

130. Please indicate whether a single trailer will suffice for 24-hour per day, seven day per week operation.

**Response:**

A single ion exchange resin trailer will be on site at a time. Based on an assumed operating schedule of 24 hours per day, 365 days per year, the ion exchange trailer will need to be replaced every 60 to 90 days.

## City Data Request

131. With 24-hour per day, seven day per week operation, how many ion exchange trailers will be used in one week?

**Response:**

A single ion exchange resin trailer will be on site at a time. Based on an assumed operating schedule of 24 hours per day, 365 days per year, the ion exchange trailer will need to be replaced every 60 to 90 days.

## City Data Request

132. Describe any storage planned for the spent resin in the event the trailer, for any reason, cannot take the waste from the reverse osmosis system.

**Response:**

Spent ion exchange resin will not be stored on site. As the ion exchange resin nears the end of its life cycle (i.e., exchange capacity), a new ion exchange resin trailer will be delivered to the site. The trailer with spent ion exchange resin will be transported off site as the new ion exchange resin trailer is received and connected on site.