Project Description

CEMS Concrete Pad
Carlsbad Energy Center Project

(07-AFC-06)

Prepared for

Carlsbad Energy Center, LLC

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CH2MHILL

Project Description

1.1 Introduction

Carlsbad Energy Center, LLC, is the owner of the Carlsbad Energy Center Project (CECP), which is located in the City of Carlsbad, California. The CECP is located on approximately 23 acres of the existing Encina Power Station owned by NRG Energy, Inc. The CECP is being constructed to meet the electrical resource needs for the San Diego County Region as identified by the California Independent System Operator (CAISO), the California Energy Commission, the California Public Utilities Commission (CPUC, and San Diego Gas and Electric (SDG&E). This includes contributing electricity to reserves that will ensure a reliable energy supply and local and regional electrical transmission grid support in San Diego County and the southern California region.

The CECP site is located in the City of Carlsbad, California (Figure 1.2-1). The site address is 4600 Carlsbad Blvd, Carlsbad, California 92008. The CECP site is part of the approximately 95-acre Encina Power Station located in Township 12 South, Range 4 West, Section 7, in San Diego County. The Encina Power Station is comprised of the following Assessor Parcel Numbers (APNs): 210-01-41 (project site) and 210-01-43.

The project site is located in the central portion of the City of Carlsbad, adjacent to the Pacific Ocean and immediately west of Interstate 5. Carlsbad Boulevard (also designated as County Highway S21) and a railroad line are located west of the project site, and the Agua Hendionda Lagoon is located adjacent to the site to the north (Figure 1.2-2). The predominant land use in the vicinity of the site is mainly industrial. Residential and commercial land uses are also situated nearby. The CECP site will ultimately consist of approximately 23 acres. The two new units (designated Units 6 and 7) will be on the northeast area of the existing Encina Power Station, between the railroad to the west and Interstate 5 to the east.

As part of initial construction for the CECP, a concrete pad for one or two Continuous Emissions Monitoring System (CEMS) will be constructed in a bowl-shaped berm that houses former fuel oil Tank 6, one of three such former fuel oil tanks that will be demolished as part of the CECP project to make way for the construction of the two new generating units (Figure 2.2-0). These three tanks will remain in place during construction of the first CEMS pad. As part of the full construction of CECP, these three tanks and their associated piping and control system will be removed.

The construction of the CEMS concrete pad will begin pending adoption of the Presiding Member's Proposed Decision and licensing of CECP by the CEC during a Business Meeting scheduled for June 30, 2011. The construction of the CEMS concrete pad will include site preparation and construction of an approximate 17-foot by 15.6- foot (approximately 265 square feet [sq ft]) concrete pad within the bowl-shaped containment area for former fuel oil Tanks 6. The containment berm for Tank 6 has a permitted (NPDES) storm water collection system.

1.2 Project Description

Construction of the CEMS concrete pad is the initial construction activity for the CECP. The construction of the CEMS concrete pad will include site preparation and construction of an approximate 17-foot by 15.6- foot (approximately 265 square feet [sq ft]) concrete pad. Figures 4 and 5 provide the Site Plan and Plot Plan for the CEMS concrete pad. In accordance with Condition of Certification (CoC) TRANS-7, the Site Plan includes the construction laydown area and construction parking area to support construction of the concrete pad. Figures 4 and 5 also show the onsite construction access from Carlsbad Blvd. through the main gate of NRG's Encina Power Station to the CEMS concrete pad site. The onsite construction access to the CEMs concrete pad site is on paved roads from the main entrance to construction site.

As shown, the onsite construction access uses NRG's leased rail-crossing (remote sensor activated rail crossing guard and red flashing lights) of the BNSF rail line. In accordance with Condition of Certification (CoC) TRANS-4, a Rail Crossing Safety Plan has been prepared and will be implemented during construction of the CEMS pad.

Approximately 90 cubic yards of soil will be excavated as part of construction of the CEMS pad. The excavated soil will be placed into 15 cy bins for testing by NRG to determine the appropriate handling of this soil. NRG has a 90-day temporary storage permit. Pending the results of the testing, the excavated soil will be managed in accordance with the results of the testing. The bin staging area is included in the construction laydown area for the CEMS pad.

In accordance with CoC NOISE-6, construction activities for the CEMS concrete pad will occur between the hours of 7 am and sunset Monday through Friday, and between the hours of 8:00 am and sunset on Saturday, although non-noisy construction activities may occur after sunset if necessary in accordance with CoC NOISE-6.

Construction of the CEMS concrete pad is anticipated to be completed by June 30, 2011. Construction equipment for this concrete pad could include grading or excavation equipment (such as a grade-all, front-end loader or back-hoe), compacting equipment (could be a hand operated compactor or small mobile compactor), a small diesel generator, and construction crew support trucks. The construction crew is anticipated to range from 10 to 15 construction workers, supervisors and inspectors. As it is anticipated that construction may need to occur after dark, portable, diesel powered construction light set will also be provided. In accordance with CoC BIO-7, construction light sets will be limited to within the Tank 6 bermed area, and will be downcast to prevent lighting from encroaching on wildlife habitat.

Construction materials including lumber for the concrete form, gravel and sand for the foundation base, rebar, and ready-mixed concrete will be delivered to the site by diesel powered trucks. Water for construction and dust control will be provide via a 3 to 4 inch hose connected to the onsite potable water supply system at the tank farm, or by a small water truck connecting to the onsite potable water supply system. In accordance with CoC SOIL&WATER-2, a non-potable water source is not located at the project site.

As part of this initial construction for the CECP, the various CoCs for CECP, including the preparation and implementation of various plans, and monitoring and reporting requirements shall be accomplished during construction of the CEMS concrete pad.