
Worker Safety-1

Construction Emergency Action

Plan

Carlsbad Energy Center Project

Prepared for
Carlsbad Energy Center, LLC

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Worker Safety-1 Construction Emergency Action Plan

Project Location

The CECP site is located in the City of Carlsbad, California (Figure 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 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. The CEMS pad addressed under this CTCIP will be constructed in a bowl-shaped berm that houses three former fuel oil tanks (Figure 3). These three tanks will remain in place during the construction of the west CEMS pad. As part of the full construction of CECP, these three tanks and their associated piping and control system will be removed.

Emergency Action Plan

2.1 Pre-Emergency Planning

The CEMS construction contractor shall designate an Emergency Response Coordinator (ERC).

The CEMS construction contractor's Emergency Response Coordinator (ERC) shall perform the applicable pre-emergency planning tasks before starting field activities and coordinates emergency response with onsite parties, the facility, and local emergency-service providers as appropriate. Pre-Emergency Planning activities performed by the ERC include:

- Review the facility emergency and contingency plans where applicable;
- Determine what onsite communication equipment is available (two-way radio, cell phones, air horn);
- Determine what offsite communication equipment is needed (nearest telephone, cell phone);
- Confirm and post the "Emergency Contacts" page (or equivalent) and route to the hospital located in this section in project trailer(s) and keep a copy in field vehicles along with evacuation routes and assembly areas. Communicate the information to onsite personnel and keep it updated;
- Field Trailers: Post "Exit" signs above exit doors, and post "Fire Extinguisher" signs above locations of extinguishers. Keep areas near exits and extinguishers clear;
- Review changed site conditions, onsite operations, and personnel availability in relation to emergency response procedures;
- Where appropriate and acceptable to the client, inform emergency room and ambulance and emergency response teams of anticipated types of site emergencies;
- Inventory and check site emergency equipment, supplies, and potable water;
- Communicate emergency procedures for personnel injury, exposures, fires, explosions, and releases;
- Rehearse the emergency response plan before site activities begin. This may include a "tabletop" exercise or an actual drill depending on the nature and complexity of the project. Drills should take place periodically but no less than once a year;
- Brief new workers on the emergency action plan; and
- The ERC will evaluate emergency response actions and initiate appropriate follow-up actions.

2.2 Emergency Equipment and Supplies

The ERC shall ensure the following emergency equipment is on the site. Verify and update the locations of this equipment as needed. The equipment will be inspected in accordance

with manufacturer's recommendations. The inspection shall be documented in a field logbook or similar means to be kept in the project files.

Emergency Equipment and Supplies

- Appropriate number of Class A,B,C fire extinguisher based on construction site and construction activities
- First aid kit
- Eye wash
- Emergency shower
- Potable water
- Bloodborne-pathogen kit
- Additional equipment (specify): In accordance with CoC Worker Safety-5, the CEMS pad construction contractor shall provide a portable automatic external defibrillator (AED) at the CEMS pad construction work site. The CEMS pad construction contractor shall the following persons are trained in the use of the AED and shall be on site whenever workers that they supervise are on site: Construction Project Manager or delegate, the Construction Safety Supervisor or delegate, and all shift foremen, A copy of the training program and AED maintenance program shall be provide to the CEC CPM for review and approval.

2.3 Incident Response

In fires, explosions, or chemical releases, actions to be taken include the following:

- Notify appropriate response personnel;
- Shut down operations and evacuate the immediate work area;
- Account for personnel at the designated assembly area(s);
- Assess the need for site evacuation, and evacuate the site as warranted;
- Conduct Incident Notification, Reporting and Investigation as required by each employer, and
- Notify and submit reports to clients as required in contract.

Small fires or spills posing minimal safety or health hazards may be controlled with onsite spill kits or fire extinguishers without evacuating the site. When in doubt evacuate. Follow the incident reporting of your employer.

2.4 Emergency Medical Treatment

Emergency medical treatment is needed when there is a life-threatening injury (such as severe bleeding, loss of consciousness, breathing or heart has stopped). When in doubt if an injury is life-threatening or not, treat it as needing emergency medical treatment.

- Notify 911 or other appropriate emergency response authorities as listed in the “Emergency Contacts” page located in this section.
- The ERC will assume charge during a medical emergency until the ambulance arrives or until the injured person is admitted to the emergency room.
- Prevent further injury, perform decontamination (if applicable) where feasible; lifesaving and first aid or medical treatment takes priority.
- Initiate first aid and CPR where feasible.
- Make certain that the injured person is accompanied to the emergency room.
- Notify and submit reports to your employer and to NRG as required in contract.

2.5 Evacuation

- Evacuation routes, assembly areas, and severe weather shelters (and alternative routes and assembly areas) are to be specified on the site map.
- Evacuation route(s) and assembly area(s) will be designated by the ERC or designee before work begins.
- Personnel will assemble at the assembly area(s) upon hearing the emergency signal for evacuation.
- The ERC and a “buddy” will remain on the site after the site has been evacuated (if safe) to assist local responders and advise them of the nature and location of the incident.
- The ERC will account for all personnel in the onsite assembly area.
- A designated person will account for personnel at alternate assembly area(s).
- The ERC will follow the incident reporting procedures in the “Incident Notification, Reporting and Investigation” section of this FSI.

2.6 Evacuation Signals

Signal	Meaning
Grasping throat with hand	Emergency-help me.
Thumbs up	OK; understood.
Grasping buddy’s wrist	Leave area now.
Continuous sounding of horn	Emergency; leave site now.

2.7 Inclement Weather

Sudden inclement weather can rapidly encroach upon field personnel. Preparedness and caution are the best defenses. Field crew members performing work outdoors should carry clothing appropriate for inclement weather. Personnel are to take heed of the weather forecast for the day and pay attention for signs of changing weather that indicate an impending storm. Signs include towering thunderheads, darkening skies, or a sudden increase in wind. If stormy weather ensues, field personnel should discontinue work and seek shelter until the storm has passed.

Protective measures during a lightning storm include seeking shelter; avoiding projecting above the surrounding landscape (don't stand on a hilltop--seek low areas); staying away from open water, metal equipment, railroad tracks, wire fences, and metal pipes; and positioning people several yards apart. Some other general precautions include:

- Know where to go and how long it will take to get there. If possible, take refuge in a large building or vehicle. Do not go into a shed in an open area;
- The inclination to see trees as enormous umbrellas is the most frequent and most deadly mistake. Do not go under a large tree that is standing alone. Likewise, avoid poles, antennae, and towers;
- If the area is wide open, go to a valley or ravine, but be aware of flash flooding;
- If you are caught in a level open area during an electrical storm and you feel your hair stand on end, drop to your knees, bend forward and put your hands on your knees or crouch. The idea is to make yourself less vulnerable by being as low to the ground as possible and taking up as little ground space as possible. Lying down is dangerous, since the wet earth can conduct electricity. Do not touch the ground with your hands; and
- Do not use telephones during electrical storms, except in the case of emergency.

Remember that lightning may strike several miles from the parent cloud, so work should be stopped and restarted accordingly. The lightning safety recommendation is 30-30: Seek refuge when thunder sounds within 30 seconds after a lightning flash; and do not resume activity until 30 minutes after the last thunder clap.

High winds can cause unsafe conditions, and activities should be halted until wind dies down. High winds can also knock over trees, so walking through forested areas during high-wind situations should be avoided. If winds increase, seek shelter or evacuate the area. Proper body protection should be worn in case the winds hit suddenly, because body temperature can decrease rapidly.

Emergency Contacts

Include company emergency response numbers here

Medical Emergency - 911 Facility Medical Response #: Local Ambulance #:	Local Occupational Medicine Clinic
Fire/Spill Emergency - 911 Facility Fire Response #: Local Fire Dept #:	Director - Health, Safety, Security & Environment
Security & Police - 911 Facility Security #: Local Police #:	Project Health and Safety Manager Name: Jim Quesenberry Phone: 760-497-5050
Project Manager Name: George Piantka Phone: 760-707-6833	Employer Worker's Compensation Notification:
Project Environmental Manager (if applicable) Name: Sheila Henika Phone: 760-535-2705	Other Notification
Federal Express Dangerous Goods Shipping Phone: 800/238-5355	

Facility/Site Evacuation Route(s):
 Proceed to front gate and follow the direction of the security personnel

Directions to Local Hospital

Local Hospital

See Figure 1 for Hospital Map

	1. Start out going SOUTHEAST on CARLSBAD BLVD / CR-S21 toward TIERRA DEL ORO ST.	go 0.2 mi	0.2 mi	Hide Row
	2. Turn LEFT onto CANNON RD. <ul style="list-style-type: none"> • CANNON RD is just past TIERRA DEL ORO ST 	go 0.4 mi	0.6 mi 1 minute	Hide Row

 	<p>3. Merge onto I-5 N via the ramp on the LEFT toward LOS ANGELES.</p> <ul style="list-style-type: none"> <i>If you reach PASEO DEL NORTE you've gone a little too far</i> 	<p>go 3.0 mi</p>	<p>3.6 mi 3 minutes</p>	<p>Hide Row</p>
 	<p>4. Merge onto CA-78 E via EXIT 51B toward ESCONDIDO.</p>	<p>go 3.2 mi</p>	<p>6.8 mi 3 minutes</p>	<p>Hide Row</p>
	<p>5. Take the COLLEGE BLVD exit, EXIT 3.</p>	<p>go 0.2 mi</p>	<p>7.0 mi</p>	<p>Hide Row</p>
	<p>6. Turn LEFT onto COLLEGE BLVD.</p>	<p>go 0.1 mi</p>	<p>7.1 mi</p>	<p>Hide Row</p>
	<p>7. Turn RIGHT onto VISTA WAY.</p> <ul style="list-style-type: none"> <i>If you reach WARING RD you've gone about 0.1 miles too far</i> 	<p>go 0.2 mi</p>	<p>7.3 mi</p>	<p>Hide Row</p>
	<p>8. 4002 VISTA WAY is on the LEFT.</p> <ul style="list-style-type: none"> <i>If you reach THUNDER DR you've gone about 0.2 miles too far</i> 		<p>7.3 mi</p>	<p>Hide Row</p>
	 <p>Tri-City Medical center 4002 Vista Way, Oceanside, CA 92056 33.183677, -117.292979 (760) 724-8411</p>	<p>7.3 mi</p>	<p>7.3 mi</p>	<p>Hide Row</p>

Total Travel Estimate: **7.35 miles - about 9 minutes**