CITY OF
CARLSBAD
Office of the City Attorney

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DOCKET
07-AFC-6
DATE Jun 07 2011
RECD. Jun 07 2011

June 7, 2011

James D. Boyd, Presiding Member
Paul Kramer, Hearing Officer

Re: Carlsbad Energy Center Project / Docket No. 07-AFC-6

Dear Commissioner Boyd and Hearing Officer Kramer:

At the conclusion of the evidentiary hearings, the City and the Redevelopment Agency moved and the following exhibits were admitted into evidence:

1. Exhibit 435, entitled "Escondido Fire – Lessons Learned, Prepared Direct Testimony of Kevin Crawford, Fire Chief, City of Carlsbad".

2. Exhibit 437, entitled "Carlsbad Energy Center Project (07-AFC-6) – Comments on Proposed CECP from Escondido Fire Chief Michael Lowry".

3. Exhibit 438, entitled "Response to the City of Carlsbad and Carlsbad Redevelopment Agency Motion of Carlsbad Energy Center LLC to Admit Supplemental Documents into Evidentiary Record".

4. Exhibit 439, entitled "Report to the California Energy Commission Regarding San Diego Gas & Electric Company's December 22, 2010 Transformer Incident at Palomar Energy Center".

5. Exhibit 440, entitled "NFIRS Comments".

6. Exhibit 443, entitled " May 10, 2011 Letter from San Diego Gas & Electric to Carlsbad City Manager, Lisa Hildabrand re: Relocating SDG&E Operations Center in Carlsbad.

We hope that these exhibits will assist the Commission in reaching its decision.

Sincerely,

RONALD R. BALL
Carlsbad City Attorney and
Carlsbad Redevelopment Agency General Counsel

City Attorney
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Exhibit 435

ESCONDIDO FIRE – LESSONS LEARNED
PREPARED DIRECT TESTIMONY OF KEVIN CRAWFORD
FIRE CHIEF, CITY OF CARLSBAD

Q1. Please state your name and position.

A1. My name is Kevin Crawford. I am the Fire Chief for the City of Carlsbad Fire Department.

Q2. Have you testified previously in this proceeding?

A2. Yes, I testified during the hearings on February 4, 2010.

Q3. What is the purpose of your testimony?

A3. The purpose of my testimony is to discuss how the lessons learned from the fires that occurred at the Kleen Energy and Palomar power plants impact the Committee's recommended fire safety conclusions and conditions for the proposed CECP project.

Q4. Will you provide a summary of the fire at Kleen Energy?

A4. Kleen Energy was planned as a combined-cycle natural-gas fueled power plant with a 620-megawatt generating capacity. The explosion and fire at the Kleen Energy power plant in Middletown, Connecticut, occurred on February 7, 2010, and killed six workers. On February 22, 2010, Carlsbad Fire Marshal Weigand contacted Chief Badamo of the South District of the Middletown Fire Department to learn more about the incident. Chief Badamo served as the fire service commander during the incident and has been involved in managing the emergency response, recovery and investigation for the explosion and fire. Below is a summary of that conversation:

- The Kleen Plant was constructed on top of a hill approximately 100 feet above the Connecticut River. The plant is located on the site of an old feldspar mine. The plant site required almost a full year of daily blasting in order to achieve the flat site where the plant is situated. This geologic condition resulted in two-thirds of the plant backing up against a 20-foot rock wall. The rock wall caused a second pressure wave when the pressure wave from the initial explosion was deflected off the rock wall, and bounced back through the building.

- The fact that the plant is located 100 feet above river level helped reduce the amount of damage to neighboring residential properties, which are over 2,000 feet from the facility, by projecting the blast wave above the homes. However, measurable amounts of damage did occur.

- The ammonia storage tank at the plant had yet to be filled. That was fortunate since the force of the explosion caused a purlin from the building to be blown into the ammonia tank to a depth of 8-inches. Consequently, there was no release of toxic ammonia.

- The plant was designed with a fire access roadway around the outside of the facility, and a central connecting road. Because of debris from the explosion and vehicles and equipment that were parked in the roadway, the fire department was only able to access the back of the building.

- The fire department response for the explosion and fire included 11 engine companies, 4 ladder companies and many ambulances. Numerous chief officers were needed to assist in managing the large incident.

- During the fire and explosion incident the fire department was only able to place two Engine Companies into the actual plant area.

- The building was allowed to be constructed with a ceiling height of 110 feet, which exceeded the reach ability of the fire department ladder truck company. This was allowed under a variance in the fire code requirements requested by the plant, based upon the existence of a fire sprinkler system that was designed to automatically extinguish any fires. In this case, venting heat from the roof of the facility by a ladder truck was unnecessary, because major portions of the roof were blown off.

- During construction, the fire department was called to respond to the facility a number of times for rescue calls involving employees. Several of these cases involved rescues that required the fire department to use 110-foot lifts owned by the contractors working on the project to remove the patients.

- On workdays during construction, the actual occupancy of the job site was between 800 and 1,000 workers. On the date the explosion and fire occurred, there were 134 workers on site with no accountability system in place to identify who was there or where they were working.

- The fire hydrant system at the facility was pressurized by jockey pumps and fire pumps. During the fire and explosion, the system failed because the electrical power had to be turned off to allow for firefighting operations. Without electrical power, the fire pumps failed. After the pumps could be brought back on-line, the fire department found that a number of underground control valves on the private system had been left in the closed position, preventing water from reaching some hydrants.

Q5. What were the critical lessons learned from the Kleen Energy fire that impact the fire safety conclusions and conditions for the CECP project?

A5. The most critical lessons learned from the Kleen Energy fire applicable to the CECP project are:

1. Although unexpected, emergencies at power plants happen, and plant owners and emergency personnel must be prepared to handle them.
2. Access roads within the plant grounds must be wide enough to permit emergency vehicles to maneuver around construction and operation equipment, and to assure clearance of debris from any explosion or fire.
3. Access roads also must be wide enough so that emergency response vehicles do not unnecessarily impede access to the emergency site.
4. Access around the perimeter of a power plant greatly facilitates response within a constrained site during an emergency.
5. Fire water delivery systems at any facility should not rely on power generated on-site, because that power is likely to be shut off during an emergency as a safety precaution.

Following the Kleen Energy incident, the Carlsbad Fire Department filed supplemental testimony from Fire Marshal James Weigand on March 10, 2010. (Docket Log No. 55760, Response of the City of Carlsbad & Carlsbad Redevelopment Agency to Admit Supplemental Documents into the Evidentiary Record, posted 3/01/10; Direct Testimony, James Weigand, pp. 2-3.) His testimony concluded with the urgent request that: "...the Commission appreciate the reality of serious fire and safety accidents at modern power plants, not to lose focus on the CECP's current lack of adequate access, and recognize the merits and necessity of CFD's request as it relates to a power plant which is located in a 25 foot depression bordered on three sides by a lagoon, a major freeway, the region's primary rail line, and has residential neighborhoods located within about 1,800 feet of the proposed site."

It is worth noting that the Connecticut Attorney General has placed the matter under investigation and, unfortunately, many of the documents associated with the incident are restricted. The Attorney General apparently considers this a significant issue.

Q6. Were there any indirect lessons learned from the Kleen Energy fire?

A6. Yes, during the CECP hearings, the applicant made statements indicating that a fire department is essentially unnecessary for facilities such as a power plant (RT, 2/4/10 pp. 17-18). The CEC staff also commented on the infrequent nature of fires at power plants (RT, 2/4/2010, pp. 133-34). Kleen Energy was a tragic reminder that fires and other emergencies, although infrequent, can occur at any facility, and that when they do they require a massive response by a wide spectrum of emergency agencies. It also teaches us that trained emergency personnel are critical to the proper management and control of those emergencies, and that

everything feasible should be considered in the siting and development of facilities to eliminate or reduce risk to life, property, and the public safety.

The Kleen Energy fire made me personally more aware of fires at energy facilities and their frequency. In the last year alone I am aware of the following incidents simply from casual monitoring of the news media:

- On May 4, 2010, a fire broke out at a Pasadena Water and Power Plant and burned for roughly 20 minutes, requiring a local fire department response of multiple units.
- On January 12, 2011, a fire broke out in a natural-gas-fired engine as it was being installed at the Humboldt Bay Power Plant in Eureka. This fire was quickly contained but required response by the local fire department.
- On October 27, 2010, a fire broke out at the Bridgeport Generating Station in Bridgeport, Conn., a 529-megawatt plant that burns coal and fuel oil. It took six hours before firefighters could enter the building to knock down the fire, according to published reports.
- On January 19, 2011, a fire broke out at the Chehalis Power Plant in Chehalis, Wash., and burned for nearly two hours before being brought under control by the plant's sprinkler system and emergency response teams. This required a multi-agency response. Like the proposed CECP, Chehalis is a natural-gas-fueled combined-cycle plant, and has an output of 520 megawatts.

In the Kleen Energy, Bridgeport and Chehalis fires, emergency responders were forced to wait until they were certain the area of the fire was de-energized before entering, at the risk of allowing the fire to accelerate. This is necessary to prevent exposing emergency crews to the added danger of live electricity. However, it also delays response.

Q7. What is your knowledge of the fire at the Palomar Power Plant?

A7. Primarily because of my experience with the Encina Power Station and exposure to the CECP, I closely followed the progress of the Palomar fire. I have visited the site, read the incident report, and have had several conversations with Chief Lowry of the Escondido Fire Department.

Q8. **Can you summarize what occurred at the Palomar fire?**

A8. Very briefly, the fire at the Palomar power plant began on December 22, 2010, at one of the transformers located within the power plant site. The Escondido Fire Department responded to the emergency, and called in several agencies to assist, including the county Air Pollution Control District, the county Department of Environmental Health, a hazardous materials team from the San Diego City Fire Department, the U.S. Marine Corps Camp Pendleton Fire Department, and neighboring fire departments. There also was a large police response. The incident

commander shut down Citracado Parkway adjacent to the plant site, for strategic and safety reasons, set up a command post on Citracado Parkway, and instituted a shelter-in-place advisory for a one-mile radius around the fire location. The incident commander waited until he was sure the facility was de-energized before sending firefighters in to fight the fire, and attempted to control the fire using Class B foam.

The initial attempts to control the fire using Class B foam failed because of the fire's extremely high temperature. The fire was located in a transformer, which used mineral oil for insulation. The oil ignited and burned so hot that the foam could not extinguish the fire. There also was a danger of spreading the fire by pouring water on it. The incident commander decided to allow the fire to burn until its intensity was reduced to a point where suppression with foam was possible. The fire was extinguished approximately 27 hours after it began.

Q9. **What are the lessons to be learned from the Palomar fire in relationship to the CECP project design?**

A9. The Palomar fire reinforces several of the "lessons learned" from the Kleen Energy incident:

1. Although infrequent, emergencies at power plants happen and plant owners and emergency personnel must be prepared to handle them.
2. Adequate access within a power plant must be provided to reduce the chance that power plant vehicles, other equipment, and emergency response vehicles do not unnecessarily impede access to and around the emergency site.
3. A road around the perimeter of a power plant greatly facilitates access and response during an emergency, especially when the plant is confined in a pit, as CECP is.

The Palomar fire was more real than Kleen Energy, because it was in our own back yard, at a plant approved by the California Energy Commission, and operated by our local utility company. It offers some additional "lessons learned":

1. We also need to pay attention to transformer fires. We had not focused on that part of the plant.
2. A transformer fire cannot be fought with water because water can spread the flames to other parts of the plant, and obviously the use of foam has limited application depending on the heat of the fire. I understand that the transformers involved in the Palomar fire are similar if not the same as the transformers located in the pit at the CECP site.
3. The intense heat of a transformer oil fire makes it difficult to fight in a limited space. I would not commit fire personnel to the pit at the CECP in the case of an intense oil fire of this nature, unless it was

necessary to protect human life. It was fortunate that no workers were involved at the Palomar fire.

4. In a restricted area such as Palomar, availability of an adjacent open space above the incident site to establish a command center is extremely advantageous.
5. If a fire cannot be fought from within a restricted site, there must be the ability to fight the fire from the perimeter.

Q10. How would you compare the Palomar and the CECP power plant sites in terms of their constraints?

A10. In my opinion, the CECP site is significantly more constrained than Palomar. The CECP site is located entirely within a pit and further constrained by two major transportation corridors located immediately to the east and west. The location of a lagoon immediately north of the site further restricts access. Under the design the Committee is recommending be approved, the road around the perimeter of the site will be eliminated.

Q11. What was your previous recommendation to the Committee on access and fire safety?

A11. In my previous written and oral testimony as well as the written and oral testimony of the Fire Marshal and Operations Chief, the Carlsbad Fire Department recommended the Committee not approve the CECP as proposed. We also identified specific requirements be implemented relative to fire safety.

Fire Marshal Weigand, in his written testimony, concluded that his "concerns led me to make a recommendation to the Fire Chief that from a fire prevention point of view the Fire Department should recommend to the Energy Commission that they deny the CECP as proposed."(Direct Testimony, James Weigand, p. 7) He specifically required that:

- The site design, including the depressed nature of the site and the walls of the pit, constitute the intent of a confined space and result in an unreasonable risk to emergency responders and facility employees as it seriously limits their ability to self evacuate in case of an emergency.
- There is a need to maintain the entire "rim road" for emergency access and response.
- There is a need for additional width on the fire and emergency access roadway in the pit, as well as access on the rim of the pit for emergency responder access and safety (50 and 25 feet respectively).
- The water tank and fire pump system as proposed represents an undesirable and unacceptable alternative in light of the existence of a fully functional municipal water system.

In his written testimony, Operations Chief Heiser concluded: "...the Carlsbad Fire Department cannot safely and effectively respond to emergency calls for service to the proposed CECP. This conclusion is based upon limited facility avenues of ingress and egress, the below-grade bowl configuration and the facility's proximity to major transportation routes, all of which impede the ability of the Carlsbad Fire Department to safely and effectively manage emergency incidents associated with the CECP. As such, if the CECP was under the permitting authority of the City, I would recommend that the project not be approved as currently proposed." (Direct Testimony, Heiser, p. 5)

In my written testimony, I stated: "Due to the numerous project concerns which have been repeatedly stated, I recommend that the Energy Commissioners do not approve the CECP as proposed." (Direct Testimony, Crawford, p. 4) I also stated that, at a minimum, the project should:

- Adjust the site plan to accommodate a 50-foot minimum emergency access width at the base of the "pit" between any structures or facilities and the base of the pit sides.
- Provide a minimum 25-foot emergency access along the "rim" of the pit, and make recommended changes to the fire-suppression system.
- Provide a looped fire protection water system connected to the Carlsbad Municipal Water District.

Q12. Have you modified your previous conclusions based on the Kleen Energy and Palomar fires?

A12. No. Based on the incidents at Kleen Energy and Palomar, I feel more strongly than ever that, under the authority of California Fire Code section 503.2.2, I require a 50-foot lower road and a 25-foot upper rim road. As I indicated in my testimony, more narrow access roads would be acceptable if the CECP were not placed in a pit and located on a less constrained site. If the Commission does not adopt my access requirements, I want the Energy Commission to make it clear they over road my requirements and provide the justification for that override.

I also believe that the fire water system at the CECP facility should be connected to the City's water supply.

Q13. Does the Escondido Fire Department, the agency responsible for responding to the Palomar fire agree with you?

A13. Yes, as I noted earlier, I have visited the Palomar site and spoken on several occasions with Chief Lowry of the Escondido Fire Department following the Palomar fire. I have shown him the layout of the CECP site and discussed with him my previous concerns and conclusions. He concurs with my assessment that the CECP is a more constrained site than Palomar, and with my conclusions on

access within the pit and around the perimeter. I have asked him to prepare a letter to this Committee with his recommendations.

Exhibit 437

ESCONDIDO
City of Choice

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May 16, 2011

James D. Boyd, Presiding Member
Carlsbad Siting Committee
California Energy Commission

Subject: Carlsbad Energy Center Project (07-AFC-6) — Comments on Proposed CECP from Escondido Fire Chief Michael Lowry

Dear Commissioner Boyd:

As Chief of the Escondido Fire Department, I was recently asked by City of Carlsbad Fire Chief Kevin Crawford to review the site plans for the proposed Carlsbad Energy Center Project and offer my perspective of that project in light of our Department's experience at the Palomar Energy Center.

The Escondido Fire Department confronted a fire at the 550-megawatt Palomar Energy Center on December 22-23, 2010. A recent report issued by San Diego Gas & Electric, the plant's owner and operator, placed the fire's origin in one of the plant's step-up transformers. According to that report, an electrical failure ignited the transformer's insulating mineral oil, which burned for 27 hours until our firefighters extinguished it.

In looking over the project proposal, CECP shares several attributes with Palomar. It would be a combined-cycle, natural-gas-fueled plant designed to generate 558 megawatts of electricity, so the two plants are similar in design and output. While the Palomar site has some constraints and access challenges, the CECP site appears to be even more constrained because the power plant is located entirely within a pit.

Power plant fires may be infrequent, but as our experience with the Palomar fire shows, they do occur and by their very nature are unpredictable. Consequently, it is important to take every possible precaution in designing a power plant in order to reduce risks to plant workers, emergency response personnel, and the public.

When Escondido Fire Department personnel arrived at the scene of the Palomar Energy Center fire at 12:18 p.m. on December 22, one of their first tasks was to make certain that energy was cut off to the section of the plant where the fire was located. SDG&E plant operators were well informed and extremely cooperative and assured the incident commander that the plant was de-energized, but it is essential for firefighters to be one hundred percent certain that the plant is de-energized before approaching. It took approximately three hours from the time Escondido

Fire Department crews arrived until they were able to confirm to the incident commander's satisfaction that the plant was completely de-energized. During that time, the transformer fire continued to burn within the blast walls and containment basin. The only other exposures were the powerlines overhead.

The incident commander closed nearby roads and set up an incident command post on Citracado Parkway, which runs parallel to the plant's western border. The choice of Citracado as a command post was based on several factors, including smoke and wind direction, its elevated vantage point above the plant grounds, and its ability to accommodate the large number of responding emergency vehicles which could have difficulty accessing the plant's constrained space. The command center also was located near a secondary access point into the plant, but it was not used.

The incident commander called in the County Department of Environmental Health and San Diego Fire Hazardous Materials teams to evaluate the threat to the environment and nearby businesses and residents, and to determine the best possible tactic for fighting the fire. It was decided to issue a shelter-in-place advisory for roughly a one-mile radius, using a reverse-911 call system. Because the fire's primary threat was to property and no lives were in danger, these precautions didn't increase any health threat at the site. However, they did result in a delay in attacking the fire.

After consultation, the incident commander decided to apply Class B foam to the fire from a location on the plant grounds. Neither the power plant nor the Escondido Fire Department had a cache of Class B foam available. The Escondido Communications Center contacted other fire departments within the County seeking Class B foam but none was available. Class B foam was found through a local retailer but it would need to be delivered to the incident. Eventually the U.S. Marine Corps Camp Pendleton responded to assist with extinguishment using the Class B foam from an aircraft crash rescue apparatus.

By the time the USMC unit and personnel arrived on site the fire had been burning in excess of six hours. The incident commander met with the marine officer, the representatives from the County and hazardous materials team, as well as the representatives from SDG&E to put together the Incident Action Plan. During that time the fire continued to burn raising the temperature of the oil within the transformer. The fire attack plan called for the USMC crash rescue firefighters to apply Class B foam to the burning oil and transformer. Apparently, the temperature of the burning oil exceeded the suppression threshold of the foam. The effect was similar to throwing water on a grease fire, and had the potential of spreading the fire around the plant, rather than suppressing it, so this attack was suspended. At that point, because the fire posed no threat to persons and was under control, a decision was made to allow it to burn down.

The next day, December 23, the insulating oil had burned sufficiently that fire crews could extinguish the fire by applying foam a second time. The transformer fire was declared extinguished at 2:24 p.m.

In looking over CECP's site plan, the stakes appear as high or higher for emergency responders when compared to the Palomar plant. Emergency personnel had ready access to the Palomar plant grounds but, as noted above, the incident commander decided to set up a command post on Citracado Parkway because of its access and location above the more restricted power plant site. Although Citracado is an arterial in our City, this decision did not greatly impact traffic because the plant is in a business park with projects still under construction and Citracado Parkway is lightly traveled. The nearest freeways, State Route 78 and Interstate 15, are each one-half mile or more away and were not impacted by the fire.

Whereas a fire at Palomar caused the shutdown of Citracado Parkway and local roads, a similar incident at the Carlsbad plant could cause the shutdown of I-5 and the coastal railroad tracks, vital links to Orange and Los Angeles counties. It appears these transportation links may have to be shut down until emergency, environmental health and hazardous materials specialists determined they are safe to reopen. There does not appear to be an optimal location to establish a command post above the CECP plant site based on the current site design.

I would also be concerned about access to the CECP site. The access route appears to present unnecessary right-angle turns for fire apparatus responding to an emergency. The best access is a direct route to the plant grounds, with as little obstruction as possible, to improve the response time. I would also be concerned about the lack of access around the perimeter of the site containing the power plant, and the need for an unobstructed access road within the plant site wide enough to accommodate emergency response vehicles.

Based on our experience at Palomar, if I were the Carlsbad Fire Chief I would have concerns if a fire were to erupt at the proposed CECP, due to its physical space, access challenges and location between the Interstate 5 freeway and the coastal railroad tracks. It is also immediately adjacent to a lagoon and very near the ocean.

I wish to thank the California Energy Commission for this opportunity to comment. If you have any questions, you may contact me by telephone at (760) 839-5401 or e-mail at mlowry@ci.escondido.ca.us.

Sincerely,

Michael Lowry
Chief, Escondido Fire Department

Exhibit 438

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of: The Application for Certification for the CARLSBAD ENERGY CENTER PROJECT	Docket No. 07-AFC-6

Response to the City of Carlsbad and Carlsbad Redevelopment Agency to the Motion of Carlsbad Energy Center LLC to Admit Supplemental Documents into the Evidentiary Record

March 1, 2010

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STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

In the Matter of:	)	
	)	
The Application for Certification for	)	Docket No/ 97-AFC-6
The Carlsbad Energy Center Project	)	
	)	

Response of the City of Carlsbad and the Carlsbad Redevelopment Agency
To the Motion of Carlsbad Energy Center LLC
To Admit Supplemental Documents into the Evidentiary Record

On February 18, 2010 Carlsbad Energy Center LLC ("Applicant") filed a motion with this Committee requesting that certain documents be admitted into the record as they are "relevant to the Project's compliance with local fire protection and worker safety laws,. . ." The City of Carlsbad and the Carlsbad Redevelopment Agency ("City") are concerned that the Applicant desires to have a sketch of the Poseidon Desalination project placed into the record without giving other parties any opportunity to question the veracity of the material or rebut their conclusions. Under most circumstances the City would object to the Applicant's motion as an attempt to circumvent the Commission's regulation regarding the admission of evidence. However, in this case we believe it is important for the Committee to view the description and also receive an explanation by the Fire Marshal now that he has had time to properly examine the documents.

Attached to this response is supplemental testimony of James Weigand, Fire Marshal for the City of Carlsbad, offered under oath, which contains the following:

1. Correction of the Applicant's assertions,
2. A description of the use of the Poseidon Desalination facility as an example of a project that needed conditions above the minimum fire code standards,
3. Two examples of other facilities where the Carlsbad Fire Department required fire roads greater than the minimum required by the Fire Code, and
4. Because of the similarities between the CECP and the Kleen Energy Power Plant located in Connecticut, a brief review of the lesson's unfortunately learned from that recent catastrophe that are pertinent to emergency response at the CECP.

In considering both the Poseidon and other examples as well as the lessons learned from the Kleen Energy facility, the City highlights Section 503.2.2 of the California Fire Code that states "the fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations".

Supplemental Testimony of James Weigand,
Fire Marshal for the City of Carlsbad

I have reviewed the Applicant's submittal to admit supplemental documents into the Evidentiary Record, dated February 18, 2010. Outlined below is my response to that document. I am concerned that the Applicant has either misunderstood or mischaracterized the Carlsbad Fire Department's testimony regarding fire access and the fire departments discretion under California Fire Code Section 503.2.2.

Poseidon Example

As the record shows (CECP Evidentiary Hearing Transcript February 4, 2009 Page 101), during cross-examination, I agreed that some parts of emergency access for the proposed Poseidon desalination plant (Poseidon) may be less than 42 feet, but that the Carlsbad Fire Department (CFD) had maintained increased access areas surrounding the hazardous portions of the desalination plant – specifically the chemical storage area located on the eastern portion of the project (defined by the x-out area on the attached site map- Attachment 1). This increased access requirement is consistent with CFD's active involvement in building and maintaining safe and secure facilities to the greatest extent possible.

It is worth noting that the Poseidon plant has been in various stages of development and as the project gets closer to fruition, its plans become more refined. This reflects the changing nature of most development projects which is a primary reason why the Fire Department is not only consulted early in the development (planning) process but also throughout the building plan submission stage of the project. In most cases, the final project (as approved on the final building plans used for permits) can be notably different than the original planning concept plans.

However, Poseidon is a good example of the city working with a developer. Through numerous meetings the City has been able to identify those areas of the project that need additional fire access and other parts of the project that represent a more limited threat. The City's positive working relationship with Poseidon illustrates how CFD works elbow to elbow with a project developer to help ensure that the different needs are met. Poseidon's cooperation unfortunately stands in contrast to the lack of collaboration the Applicant has afforded the CFD as reflected by the one meeting (January 26, 2009) that representatives from NRG have had with the Fire Department during the course of this project.

In the February 18, 2010 letter, the Applicant tries to draw conclusions on the appropriate access for the proposed power plant (CECP) based on those required of the Poseidon plant. The letter fails to acknowledge that the two plants - CECP and Poseidon - are vastly different.

An example of the differences can be seen in the heights of the two projects. The CECP will have multiple structures (smokestacks) that are 140 feet tall whereas the Poseidon facility is only 35 feet tall. There are also distinct differences between the two

locations including the fact that Poseidon is an at-grade facility with ample room surrounding the plant to stage emergency response operations whereas the CECP will be located in a 25 foot depression with limited space for emergency operations.

Other Examples of Carlsbad Fire Department's Discretion

The purpose of CFD's discussion of Poseidon was to provide the Committee with an example of how the Fire Department takes an active role in reviewing project safety, and when appropriate, uses its discretion to require something beyond the minimum standards.

Since the Applicant has raised concerns about the accuracy of the Carlsbad Fire Department's testimony, CFD would like to submit other examples (Attachments 2 and 3) of fire safety requirements which exceed the minimum standards. These two additional examples reflect conditions required for the Life Technologies facility and the Dos Colinas Affordable Housing Complex. Again, to be clear, this information is being provided to the Committee as an example of the CFD's practice of requiring a project to do more than the minimum based on project circumstances (as allowed under California Fire Code Section 503.2.2), not to establish some type of correlation between those projects and the CECP.

In the example of Life Technologies (Attachment 2), due to grade differentials between adjacent pads and limited access from the rear of the facility, CFD worked with the owner of the project to obtain wider fire access roadways ranging from 30-feet wide in areas of full level access to 57-feet wide in the rear of the facility where our access is impeded by a raise in grade to the adjacent property. This increase in fire access road width insures that the fire department will have the room needed to work in case of an incident.

At Dos Colinas (Attachment 3), which is a proposed affordable housing project, City roadway design requirements allowed for only a single point of access. Due to this limited ingress and egress, the CFD required that the project increase the fire access roadway width from 20-feet to 28-feet. Had this project been able to provide a second point of roadway access, a 20-foot fire access roadway width would have been appropriate.

CFD's Conclusions Remain the Same on the CECP

Applicant's inability to distinguish Poseidon as just an example of CFD exercising its authority under the California Fire Code results in an erroneous conclusion that the CECP's proposed access widths are adequate. Furthermore, Applicant's rush to discredit CFD's request for additional access as it relates to the CECP fails to account for the specific attention CFD has paid to the CECP. This includes:

- CFD's analysis of CECP's site plan
- CFD's site visits of other power plants which were offered as comparable examples
- CFD's review of both Applicant's and the CEC staff's testimony.

Based on the above information, CFD has and continues to express its belief that an appropriate level of access for the proposed CECP is 50 feet in the "pit" and a ring road of 25 feet around the rim.

Lessons Learned from Kleen Energy

The recent regrettable tragedy at the Kleen Energy Plant in Connecticut just days after the testimony of the applicant which asserted that a fire department is essentially unnecessary for these types of facilities provides additional insights into the possible accidents that can happen at a natural gas power plant and the importance of the appropriate involvement of the local fire department.

Soon after the tragedy that occurred at the Kleen Energy Power Plant (Kleen), I contacted Fire Chief Ed Badamo from the South District of the Middletown Fire Department (February 22, 2010). Chief Badamo served as the fire service commander during the incident and has been involved in managing the emergency response, recovery and investigation for the explosion and fire. Below is a summary of that conversation.

- *The Kleen Plant is constructed on top of a hill approximately 100-feet above the Connecticut River. The plant is located on the site of an old feldspar mine. The plant site required almost a full year of daily blasting in order to achieve the flat site where the plant is situated. This geologic condition resulted in 2/3 of the plant backing up against a 20-foot rock wall. The rock wall caused a second pressure wave when the pressure wave from the initial explosion was deflected off the rock wall and bounced back through the building.*

- *The fact that the plant is located 100-feet above river level helped reduce the amount damage to neighboring residential properties which are over 2,000-feet from the facility by projecting the blast wave above the homes. However, measurable amounts of damage did occur.*

- *The amounts of actual hazardous materials at the site significantly exceed what they had expected. For example, there were 489 compressed gas cylinders in the building at the time of the explosion some of which were seriously damaged. Of the damaged cylinders, 79 contained flammable gases such as acetylene.*

- *The ammonia storage tank at the plant had yet to be filled. That was fortunate since the force of the explosion caused a purlin from the building to be blown into the ammonia tank to a depth of 8-inches.*

- *The plant was designed with a fire access roadway around the outside of the facility with a central cross road. Because of debris from the explosion and vehicles and equipment parked in the roadway the fire department was only able to access the back of the building.*

- *During the fire and explosion incident the fire department was only able to place 2-Engine Companies into the actual plant area.*

- *The building was allowed to be constructed with a ceiling height of 110-feet which exceeded the reach ability of the fire department ladder truck company. This was allowed under a variance in the fire code requirements requested by the plant because of a fire sprinkler system that would prevent any fires. In this case, heat venting from the roof of the facility by a ladder truck was unnecessary because major portions of the roof were blown off.*

- *During the construction process the fire department was called to respond to the facility a number of times for rescue calls involving employees. Several of these cases involved rescues that required the fire department to use 110-foot lifts owned by the contractors working on the project to remove the patients.*

- *On work days during the construction process the actual occupancy of the job site was between 800-1000 workers. On the date of the explosion and fire occurred, there were 134 workers on site with no accountability system in place to identify who was there or where they were working. This significantly increased the workload for the fire department as they were required to continue to attempt to locate possible additional victims in the building debris until everyone was accounted for.*

- *The fire department response for the explosion and fire included 11-Engine Companies, 4-Ladder Companies and many Ambulances. Numerous Chief Officers were needed to assist in the large incident management.*

- *The fire hydrant system at the facility was pressurized by jockey pumps and fire pumps. During the fire and explosion the system failed because the electrical power had to be turned off to allow for firefighting operations. With no electrical power, the fire pumps failed. After the pumps were able to be brought back on-line, the fire department found that a number of underground control valves on the private system had been left in the closed position preventing water from reaching some hydrants.*

- *Middletown is current investigating the incident and they have offered to share their findings with Carlsbad.*

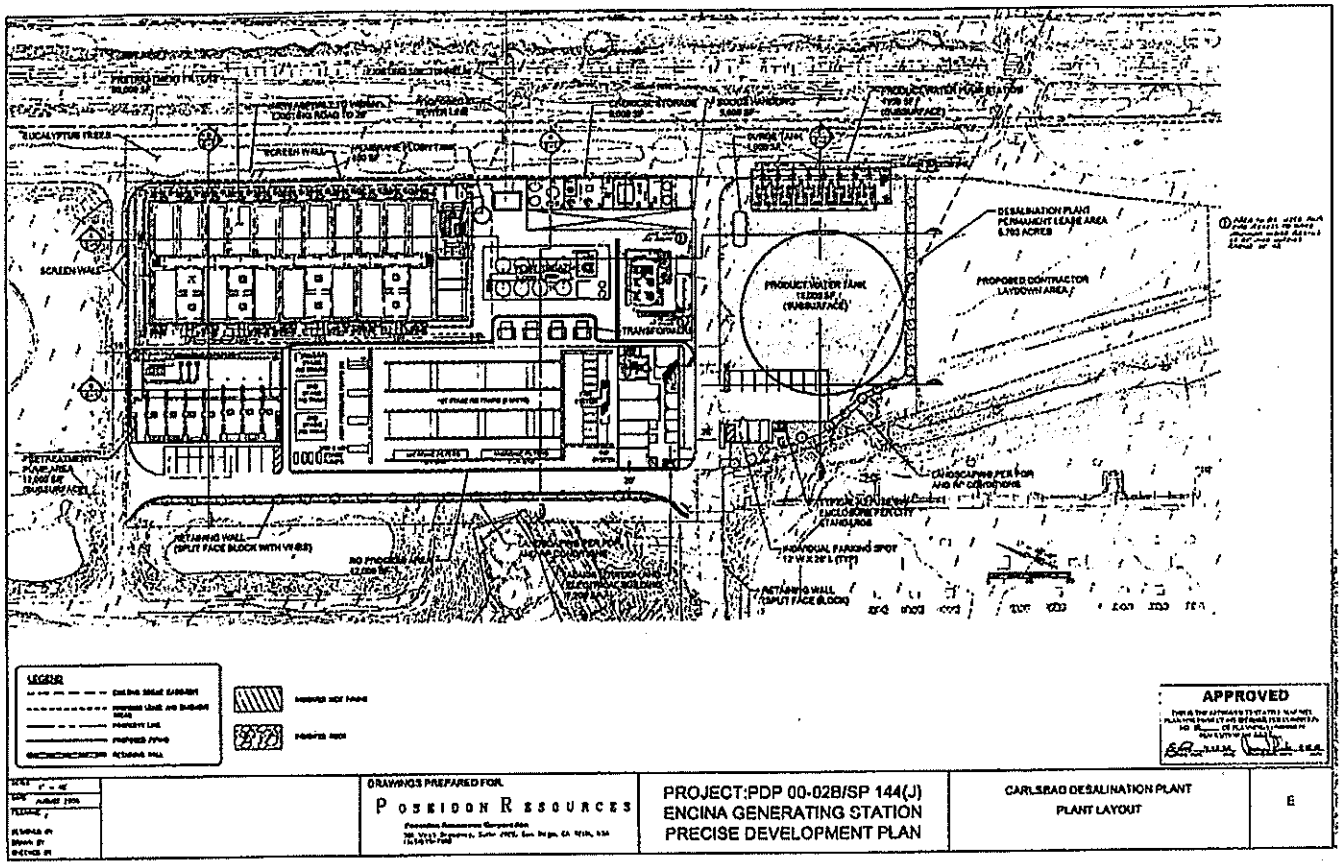
Conclusion

In summary, the City would urge the Commission appreciate the reality of serious fire and safety accidents at modern power plants, not to lose focus on the CECP's current lack of adequate access, and recognize the merits and necessity of CFD's request as it relates to a power plant which is located in a 25 foot depression bordered on three sides by a lagoon, a major freeway, the region's primary rail line, and has residential neighborhoods located within about 1,800-feet of the proposed site.

I swear under oath that the above is true and correct to the best of my knowledge.

James Weigand
Fire Marshal, City of Carlsbad

ATTACHMENT 1



	DRAWINGS PREPARED FOR POSEIDON RESOURCES	PROJECT:PDP 00-02B/SP 144(J) ENCINA GENERATING STATION PRECISE DEVELOPMENT PLAN	CARLSBAD DESALINATION PLANT PLANT LAYOUT	E

PDP 00-02B
8 of 18

PUD 09-02

McFARLANE ARCHITECTS

VICINITY MAP

PROJECT SITE

SITE PLAN LEGEND

PARKING AREAS

5781 VAN ALLEN WAY PARCEL 1

5791 VAN ALLEN WAY PARCEL 2

PARCEL 1: 5781 VAN ALLEN WAY
EXISTING TWO STORY BUILDING
LEGAL DESCRIPTION
PARCEL 1 OF PARCEL MAP NO. 7571, IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DECEMBER 24, 1997 AS FILE NO. 1997-0656621 OF OFFICIAL RECORDS

PARCEL 2: 5791 VAN ALLEN WAY
EXISTING TWO STORY BUILDING
LEGAL DESCRIPTION
PARCEL 2 OF PARCEL MAP NO. 7571, IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DEC. 24, 1997 AS FILE NO. 1997-0656621 OF OFFICIAL RECORDS

PARCEL 3C:
EXISTING RECREATIONAL SPACE
LEGAL DESCRIPTION
A CONSOLIDATION OF PARCELS 3 AND 4 OF CARLSBAD MINOR SUBDIVISION NO. 97-04 IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO PARCEL MAP TRACKER NO. 17371, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY DECEMBER 24, 1997 AS FILE NO. 1997-0656621 OF OFFICIAL RECORDS

VAN ALLEN WAY

FARADAY AVENUE

PALOMAR AVENUE

COLLEGE BOULEVARD

PROPERTY LINE

SETBACK

CITY OF CARLSBAD

Revised

RECEIVED
JUL 16 2009
CITY OF CARLSBAD
PLANNING DEPT

OWNER OF 5781 (PARCEL 1)

OWNER OF 5791 (PARCEL 2)

TENANT OF 5781 & 5791

OWNER OF VACANT LOT (PARCEL A)

PROJECT DESCRIPTION

life technologies™
CARLSBAD POINTE CAMPUS
5781/5791 VAN ALLEN WAY
CARLSBAD, CA 92008

CAMPUS MASTER PLAN
NON-MONUMENTAL PLANNED
DEVELOPMENT PERMIT PACKAGE

SHEET TITLE
OVERALL EXISTING SITE PLAN

SHEET NUMBER
A1.0

OVERALL EXISTING SITE PLAN
SCALE 1"=60'-0"

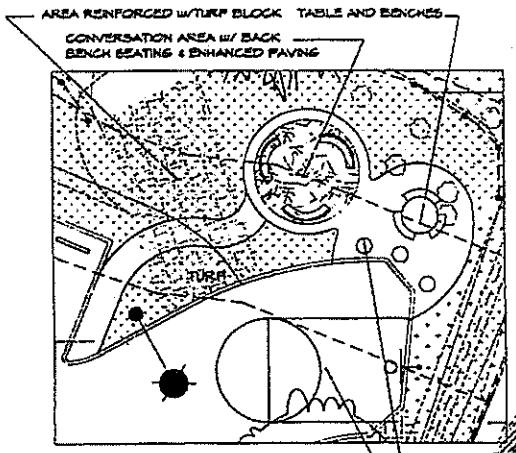
A1.0

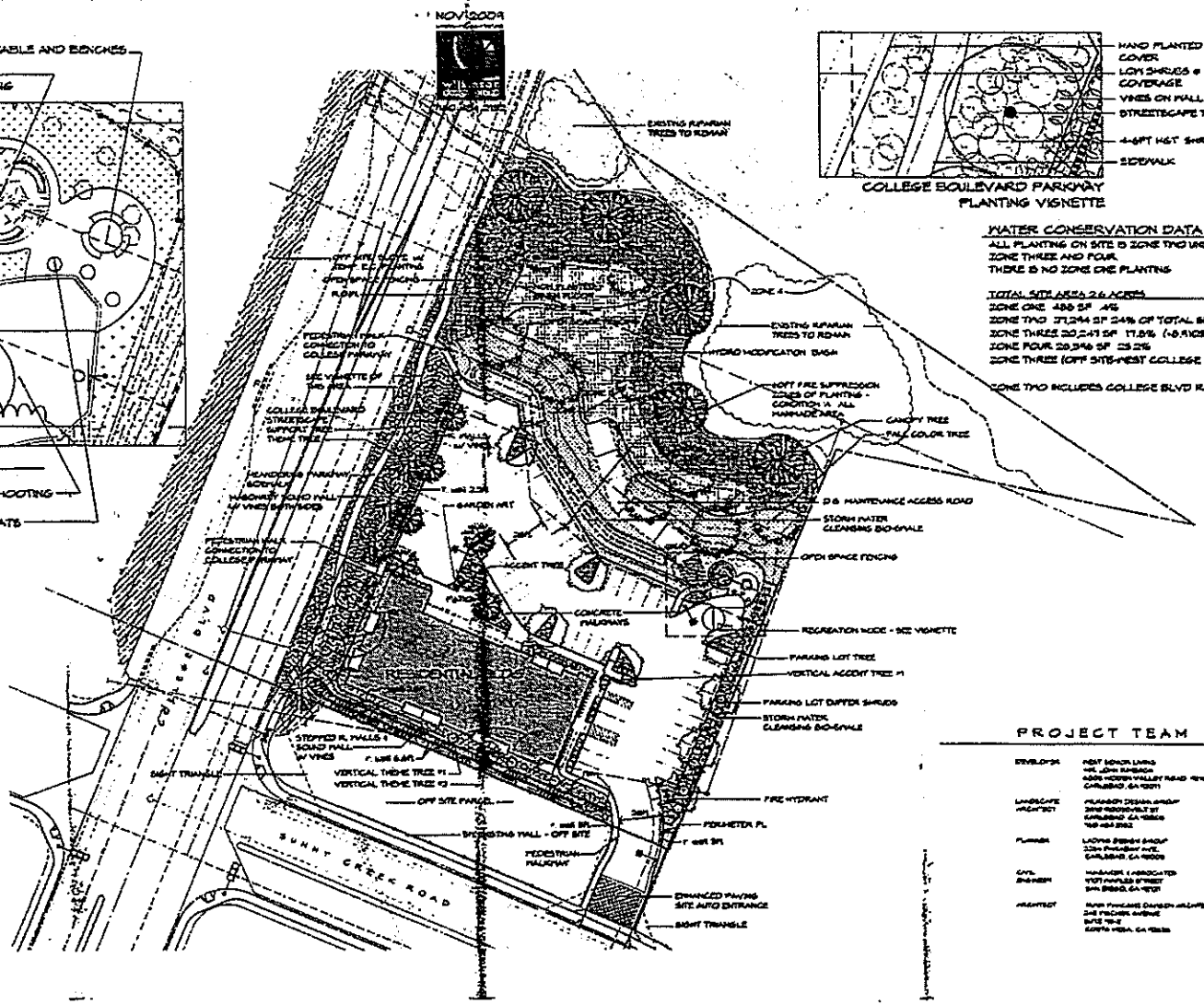
CARLSBAD CA.

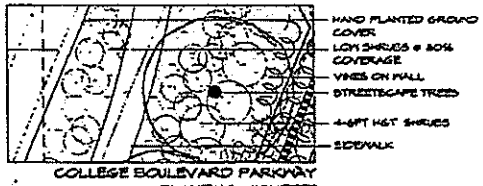
Dos Colinas - Affordable Housing

LANDSCAPE CONCEPT FIRE SUPPRESSION & WATER CONSERVATION PLAN

NOV 2009







COLLEGE BOULEVARD PARKWAY PLANTING VIGNETTE

WATER CONSERVATION DATA

ALL PLANTING ON SITE IS ZONE TWO UNLESS NOTED AS ZONE THREE AND FOUR.
THERE IS NO ZONE ONE PLANTING

TOTAL SITE AREA 2.6 ACRES
ZONE ONE 486 SF .4%
ZONE TWO 31,244 SF 24% OF TOTAL SITE
ZONE THREE 30,241 SF 17.8% (-8,410SF OFF SITE)
ZONE FOUR 29,346 SF 23.2%
ZONE THREE (OFF SITE-WEST COLLEGE BLVD) 8,410 SF

ZONE TWO INCLUDES COLLEGE BLVD ROW EDGE

PROJECT TEAM

DEVELOPER
LANDSCAPE ARCHITECT
PLANNER
CIVIL ENGINEER
ARCHITECT

DECLARATION OF SERVICE

I, Robin Nuschy, declare that on March 1, 2010, I served and filed copies of the attached, Admit Supplemental Documents into the Evidentiary Record. 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 document has 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 or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above 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.

Robin Nuschy

*indicates change

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 2/16/2010)

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dratliff@energy.state.ca.us

***Jennifer Jennings**
Public Adviser's Office
publicadviser@energy.state.ca.us

*indicates change

DATE: 5·16·11 DEPARTMENT: PEM

VENDOR #: ORG KEY NO.:

OBJECT: 8522 (Miscellaneous Meals/Mileage)

THE CITY OF CARLSBAD
MISCELLANEOUS MEALS,
MILEAGE AND OTHER EXPENSE REPORT

DATE	MEETING OR PURPOSE OF TRIP	LOCATION	MILEAGE		OTHER EXPENSES
9·22·09	Safety Mtg.	Oak	20.2	round trip	
10·7·09	Safety Mtg.	Oak	20.2	round trip	
2·9·10	Safety Mtg.	Oak	20.2	round trip	
6·22·10	Safety Mtg.	Las Palmas	3.47		
7·27·10	Safety Mtg.	Oak	20.2	round trip	
1·13·11	Safety	Oak	20.2	round trip	
2·26·11	Carpet cleaning	Dove	21.58	round trip	
3·15·11	Safety Mtg.	Oak	20.2	round trip	
4·13·11	Coffee Service	Faraday	8.84	round trip	

NAME: Martha Vasquez

DATE: 5·16·11

REQ BY:

AUTH BY:

TOTAL MILES $0.585

TOTAL DUE

For Finance use only.
8522
8522

Please refer to Council Policy #2 for further explanations.
The mileage reimbursement rate will be set annually in accordance with the rate allowed by the IRS.

Exhibit 439

REPORT TO THE

CALIFORNIA ENERGY COMMISSION

REGARDING

SAN DIEGO GAS & ELECTRIC COMPANY'S

DECEMBER 22, 2010

TRANSFORMER INCIDENT AT

PALOMAR ENERGY CENTER

SDGE

A Sempra Energy utility®

April 13, 2010

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2. Summary of Sequence of Incident Events 5
3. Analysis of Findings 7
4. Conclusions 8
5. Recommendations 9

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1. Executive Summary

At 12:08PM on December 22, 2010, the Palomar Energy Center (PEC) Combustion Turbine Generator Unit 1 (CTG1) step-up transformer (GSU1) failed, resulting in the opening of Palomar Energy Center Switchyard (PEN) 230 kV circuit breakers 4E and 4T and the 18 kV generator circuit breaker GCB-CTG1-01 within 3.5 cycles, effectively isolating the faulted GSU1 transformer. The scope of this incident investigation focuses on the source of the GSU1 failure and the precipitating events and conditions leading up to the failure.

The failed GSU1 was manufactured by Hyundai Heavy Industries Co., Ltd. in 2004 in Ulsan, Korea and placed into service in 2006. GSU1 nameplate information is as follows:

132/176/220 MVA
ONAN/ONAF/ONAF
230/18 kV
Grounded Wye/Delta Connected
HV De-energized taps, +/- 5.0%, +/-2.5% steps

CTG1 was operating at full load and carrying 165 MW at the time of the failure. The subsequent fire required removing the remaining combustion and steam generators, CTG2 and STG respectively, from service.

The failure was caused by a breakdown in the internal transformer insulation system that resulted in a single line to ground fault with a magnitude of 25,000 A. Protective relaying systems properly operated and tripped the breakers within 3.5 cycles. No transmission system disturbance is known to have occurred at the time of the fault, and no lightning strikes were recorded or heard by plant personnel at the time of the fault.

A forensic teardown was conducted on the transformer which exposed an internal flashover between the 230 kV C Phase ABB draw-lead bushing grounded lower support, lower corona shield, and the tank east end wall. As a result of the internal flashover within GSU1, the internal insulating oil ignited, fueled a fire, and burned for twenty-seven (27) hours.

Although a majority of the physical evidence was destroyed or severely damaged in the GSU1 fire, the available historical information and debris inspection indicate that the December 22, 2010 event consisted of a C Phase to ground fault of 25,000 A internal to the GSU1 transformer tank lasting 3.5 cycles, resulting in a breakdown of the GSU1 insulation system.
The protective relaying system properly operated and cleared the fault in 3.5 cycles, however, the energy dissipated during the fault was sufficient to ignite the

oil and cause a catastrophic explosion internal to the transformer tank rupturing the transformer north side wall and east end wall seams, severely damaging B and C Phase 230 kV bushings.

A determination as to the factors that definitively contributed to the breakdown of the GSU1 insulation system, as well as the sequence of fault events that created the discovered arc marks, remains inconclusive.

The investigation concludes that proper maintenance procedures and techniques were in place and practiced prior to the transformer failure, and that GSU1 maintenance was not a contributing factor to the fire.

An internal inspection of GSU1's sister unit, GSU2, to include a detailed analysis of the pressboard insulating cone surrounding the 230 kV bushings, may provide further insight into the construction and design techniques of GSU1 which may have contributed to the GSU1 failure. If the detailed analysis of GSU2, scheduled for May 2011, indicates that there are construction and design techniques that contributed to the GSU1 failure, corrective remedies will be immediately implemented to avoid a possible failure of GSU2.

2. Summary of Sequence of Incident Events

Prior to 12:08PM, PEC generating units CTG1, CTG2, and STG were operating under normal, full load generating conditions with output capacities of 165 MW, 165.8 MW, and 213.3 MW, respectively. Transmission and generation system voltages were operating at normal levels. Prior to the occurrence of the event on December 22, 2010, the SDG&E system experienced no transmission system disturbances.

The following is a detailed sequence of events for the incident on December 22, 2010:

12:08PM	1) Generator core monitor fault alarms.
12:10PM	1) PEC Operator reports fire in GSU1 to 911.
	2) PEC Operator advises SDG&E Grid Operations of fire in GSU1.
	3) SDG&E Grid Operations advises California Independent System Operator (CAISO) of fire in GSU1.
12:18PM	City of Escondido Fire Department is on-site.
1:35PM	PEN 230 kV Circuit Breaker 4W is opened, de-energizing TL23051 for safety.
1:37PM	PEN 230 kV Circuit Breakers 3T and 3W are opened, de-energizing TL23011 for safety.
3:12PM	PEN 230 kV Circuit Breakers 1W and 2W are opened, de-energizing PEN 230 kV West Bus.
3:24PM	Decision is made by Director of Generation to shut down remaining generators CTG2 and STG due to heavy soot accumulation in the PEN 230 kV Switchyard from the GSU1 fire.
3:40PM	PEN 230 kV Circuit Breakers 2E and 2T are opened, isolating TL23015 from Grid.
3:41PM	STG taken off-line.
3:42PM	CTG2 taken off-line.

At 2:24PM on December 23, the City of Escondido Fire Department extinguishes the fire in GSU1.

3. Analysis of Findings

The following factors were taken into consideration when evaluating the precipitating events resulting in the GSU1 failure:

a. A, B, and C Phase 230 kV draw-lead bushing construction incorporating a pressboard insulating cone surrounding the corona shield and bushing lower support.
b. The location of the 230 kV bushing arc marks.
c. The location of the east end wall arc mark.
d. Internal transformer tank electrical clearances between energized and grounded components.
e. April 4, 2010 earthquake experienced by the San Diego region.
f. Above average rainfall experienced at the PEC site after the occurrence of the April 4, 2010 earthquake and prior to the GSU1 failure.
g. Absence of arc marks on all internal surfaces of the damaged lightning arrester and 230 kV draw-lead bushings.

4. Conclusions

Although a majority of the physical evidence was destroyed or severely damaged in the GSU1 fire, the available historical information and debris inspection indicate that the December 22, 2010 event consisted of a C Phase to ground fault of 25,000 A internal to the GSU1 transformer tank lasting 3.5 cycles, resulting in a breakdown of the GSU1 insulation system.

The protective relaying system properly operated and cleared the fault in 3.5 cycles, however, the energy dissipated during the fault was sufficient to ignite the oil and cause a catastrophic explosion internal to the transformer tank rupturing the transformer north side wall and east end wall seams, severely damaging B and C Phase 230 kV bushings.

A determination as to the factors that definitively contributed to the breakdown of the GSU1 insulation system, as well as the sequence of fault events that created the discovered arc marks, remains inconclusive.

The investigation concludes that proper maintenance procedures and techniques were in place and practiced prior to the transformer failure, and that GSU1 maintenance was not a contributing factor to the fire.

An internal inspection of GSU1's sister unit, GSU2, to include a detailed analysis of the pressboard insulating cone surrounding the 230 kV bushings, may provide further insight into the construction and design techniques of GSU1 which may have contributed to the GSU1 failure. If the detailed analysis of GSU2, scheduled for May 2011, indicates that there are construction and design techniques that contributed to the GSU1 failure, corrective remedies will be immediately implemented to avoid a possible failure of GSU2.

5. Recommendations

Based on the conclusions in Section 4, the following recommendations are made:

a. During the May 2011 PEC maintenance outage, drain all oil from and internally inspect GSU2 and STG GSU3. Ensure that all bolts on the transformer and transformer accessories are properly torqued to the manufacturers' specifications, all gaskets/seals are in acceptable condition, and all electrically conducting connections are acceptable.

b. Ensure that all bushings on GSU2 and GSU3 are installed according to the manufacturer's installation instructions.

c. Request Hyundai to review the electric field intensity around the GSU2 and GSU3 230 kV bushing corona shields to confirm that sufficient electrical clearances exist, and, if necessary, to add additional dielectric material to increase electrical clearances to acceptable levels.

37070	CA	12/22/2010	01	0011083	000	☐ Delete ☐ Change	NFIRS Comments
FDID	State	Incident Date	Station	Incident Number	Exposure		

Exhibit 40

BC1304, E1311, E1313, E1315, T1371 and M1396 were dispatched to a commercial fire at 571 Enterprise St. on 12/22/2010 at 1211 hours. Correct address (2300 Harveson Place). While en route I advised dispatched that we had smoke and fire showing from a distance. I also advised all incoming units that we would be taking a very cautious and methodical approach as this was involving the SDG&E power plant. I arrived on scene first and found a 30X30 area with a "Step Up Transformer" well involved with fire. I established Citracado IC and had all incoming units stage out on Citracado Pky. I met with SDG&E officials and request several documents concerning the contents being burned. At this point I began making additional notifications. I request SDFD Haz Mat, County Health and an EDP supervisor to the ICP that was established on Citracado Pky. After gathering further intel I determined that we would not be engaging in an offensive mode until further information and resources were available. Division Chief Montgomery arrived on scene and began to assist. I met with EPDs PIO and requested a reverse 911 set up, and deployed to the surrounding area informing residents to shelter in place after approval from APCD, who were on scene. Resources began to arrive. SDFD Haz Mat 1 with SDFD BC D. Williams and Camp Pendleton Haz Mat 1. At 1535 a meeting was held inside the command center with SDFD Haz Mat 1, CPFD Haz Mat 1, County Health, EFD Fire Chief Lowry, EFD Division Chief Montgomery who was assigned to Operations and myself BC Tenger Citracado IC. After the meeting an additional request was made to have the USMC Camp Pendleton AARF respond in to assist. When the USMC AARF unit arrived on scene we went to the control room and showed all the resources involved what the fire looked like on camera. After that meeting units responded back to the ICP to develop a plan to perform an offensive maneuver for putting the fire out. E1313 and one of the T1371 fire fighters were dispatched to the ICP. A plan was developed with a Hazmat Group, Suppression Group,Protection Group, Medical Group and Safety Officer. The tactic was to safely apply class "B" foam to extinguish the fire. After a safety briefing the plan was executed however, we were unable to extinguish the fire. Units were pulled out of the area and the decision was made to allow the transformer to burn. E1313 and M1396 were released from the scene. E1311, USMC AARF and BC1304 remained on scene and monitored the fire over night. The fire began to lessen in intensity over the night however, the wind began to change so I requested an additional reverse 911 sent out to the Harmony Grove area. Do to the wind change I contacted North Comm and advised them of the situation. I also, requested a Chief Officer from SMC to respond to the ICP for the morning briefing. At 0740 Battalion Chief Griffin arrived at the command post and was briefed on the incident. At 0810 Chief Griffin assumed "Citracado IC".
John V. Tenger
Battalion Chief
12-23-1010 Chief Griffin relieved Chief Tenger and assumed Citracado Command. We completed a turnover briefing at the command post and I then visited the incident site.
returned to the command post and advised 1311 (safety) to keep everyone out of the secondary exclusion zone that we had set up around the transformer that was burning. We conducted a briefing at 1100 hours where we shared information and decided to evaluate the ability to attempt to extinguish the fire. After securing better berms around the secondary containment area, we requested an engine and ambulance to assist with the extinguishment. 1313 and 1392 arrived and we have an operational and safety briefing. We began extinguishment operations at 1400 hours and had full knockdown at 1420 hours.

At 1515 we released the Command Van, began pickup of hoses and equipment. 1311 advised there was a medical issue with a crew member. 1392 assessed and transported to PMC.

FDID	State	Incident Date	Station	Incident Number	Exposure		
37070	CA	12/22/2010	01	0011083	000	☐ Delete ☐ Change	NFIRS Comments

The scene was turned back over to the company at 1550 hours and command was terminated.
All units were released at 1600 hours.

A	FDID	State	Incident Date	Station	Incident Number	Exposure		
	37070	CA	12/22/2010	06	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1396	Dispatch	☑	12/22/2010 12:11	2	☐ Suppression	92	
Apparatus Type	76	Arrival	☑	12/22/2010 12:23		☑ EMS		
		Clear	☑	12/23/2010 21:31		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
JOC	COLLINS, J. PM	☐	92			
GJM	MARTINEZ, G. PM	☐	92			

A							
37070	CA	12/22/2010	AD	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**
FDID	State	Incident Date	Station	Incident Number	Exposure		

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1304	Dispatch	☑	12/22/2010 12:11		☐ Suppression	81	
Apparatus Type	00	Arrival	☑	12/22/2010 12:13	2	☐ EMS		
		Clear	☑	12/23/2010 16:00		☑ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
HG1	GRIFFIN, H. BC	☐	81			
JVT	TENGER, J. BC	☐	81			

A	FDID	State	Incident Date	Station	Incident Number	Exposure		
	37070	CA	12/22/2010	01	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1371	Dispatch	☑	12/22/2010 12:11		☑ Suppression	92	
Apparatus Type	12	Arrival	☑	12/22/2010 12:18	4	☐ EMS		
		Clear	☑	12/22/2010 14:08		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
KMB	BEVERLY, K. EN	☐	92			
DEB	BOYER, D. CP	☐	92			
JBM	MATTHEWS, J. PM	☐	92			
DSR	REVERE, D. PM	☐	92			

A	37070	CA	12/22/2010	01	0011083	000	☐ Delete ☐ Change	NFIRS-9 Apparatus
	FDID	State	Incident Date	Station	Incident Number	Exposure		

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1311	Dispatch	☐	12/22/2010	12:11		☑ Suppression	10	11
Apparatus Type	11	Arrival	☑	12/22/2010	12:18	6	☐ EMS	92	
		Clear	☑	12/23/2010	16:21		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
WJA	ATKINS, W. CP	☐	10	11	92	
JA1	AUBELE III, J. EN	☐	10	11	92	
TJD	Dowell, T. PM	☐	10	11	92	
JJF	FRYDAY, J. CP	☐	10	11	92	
TJJ	JOHNSON, T. PM	☐	10	11	92	
JTW	WILLIAMS, J. EN	☐	10	11	92	

A	FDID	State	Incident Date	Station	Incident Number	Exposure		
	37070	CA	12/22/2010	03	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1313	Dispatch	☑ 12/22/2010	12:11		☑ Suppression	50	
Apparatus Type	11	Arrival	☑ 12/22/2010	12:20	3	☐ EMS		
		Clear	☑ 12/22/2010	12:34		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
DJA	ABRAHAM, D. EN	☐	93			
RHH	HUMES, R. PM	☐	93			
RLS	STUKA, R. CP	☐	93			

A	FDID	State	Incident Date	Station	Incident Number	Exposure		
	37070	CA	12/22/2010	05	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1315	Dispatch	☑ 12/22/2010	12:11		☑ Suppression	92	
Apparatus Type	11	Arrival	☑ 12/22/2010	12:21	3	☐ EMS		
		Clear	☑ 12/22/2010	12:40		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
BRB	BIHUN, B. PM	☐	92			
JLR	RATLIFF, J. EN	☐	92			
PVW	WILLIAMS, P. CP	☐	92			

A							
37070	CA	12/22/2010	AD	0011083	000	☐ Delete ☐ Change	**NFIRS-9 Apparatus**
FDID	State	Incident Date	Station	Incident Number	Exposure		

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1303	Dispatch	☑	12/22/2010 12:17	1	☐ Suppression	81	44
Apparatus Type	00	Arrival	☑	12/22/2010 12:27		☐ EMS		
		Clear	☑	12/23/2010 16:14		☑ Other	41	82

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
PCM	MONTGOMERY, P. DC	☐	81	44	41	82

A	37070	CA	12/22/2010	02	0011083	000	☐ Delete ☐ Change	NFIRS-9 Apparatus
	FDID	State	Incident Date	Station	Incident Number	Exposure		

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1392	Dispatch	☐ 12/23/2010	13:10		☐ Suppression	30	33
Apparatus Type	76	Arrival	☐ 12/23/2010	13:29	2	☑ EMS	34	
		Clear	☐ 12/23/2010	16:23		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
GLM	McCLELLAN, G. PM	☐	30	33	34	
TAS	STUART, T. PM	☐	30	33	34	

A	37070	CA	12/22/2010	AD	0011083	000	☐ Delete ☐ Change	NFIRS-9 Apparatus
	FDID	State	Incident Date	Station	Incident Number	Exposure		

B Apparatus or Resource		Dates and Times			Number of People	Use On Scene	Actions Taken	
Apparatus ID	1301	Dispatch	☑	12/22/2010 15:00	1	☑ Suppression	81	
Apparatus Type	00	Arrival	☑	12/22/2010 15:00		☐ EMS		
		Clear	☑	12/23/2010 16:00		☐ Other		

Personnel ID	Name and Rank	Off-Duty	Action Taken	Action Taken	Action Taken	Action Taken
MJL	LOWRY, M. CH	☐	81			

Escondido Fire Department

A

FDID	State	Incident Date	Station	Incident Number	Exposure
37070	CA	12/22/2010	01	0011083	000

☐ Delete
☐ Change
☐ No Activity

NFIRS-1 Basic

B Location

☑ Street Address
☐ Intersection
☐ In front of
☐ Rear of
☐ Adjacent to
☐ Directions
☐ US National Grid

☐ Address on Wildland Form

Census Tract

Number	Prefix	Street	Type	Suffix
2300		HARVESON	PL	

Apt/Suite	City	State	Zip Code
	Escondido	CA	92029

Cross Street, Directions or US National Grid, as applicable

C Incident Type
100 Fire, other

D Aid Given or Received

1 ☑ Received
2 ☐ Automatic Rec'vd
3 ☐ Given
4 ☐ Automatic Given
5 ☐ Other Aid Given
N ☐ None

Their FDID

Their State

0000000
Their Incident

E1 Dates & Times

		Mon. Day Year	Time
Alarm		12/22/10	12:11
Arrival	☑ Arrival	12/22/10	12:13
Control	☑ Control	12/23/10	14:20
Last Unit Clear	☑ Last Unit Clear	12/23/10	16:00

E2 Shifts / Alarms

Shift	Alarms	Dist.
C	0	06

E3 Special Studies

ID# Value

F Actions Taken

81 Incident command

Primary Action Taken (1)
11 Extinguish

Additional Action Taken (2)

Additional Action Taken (3)

G1 Resources

	Apparatus	Personnel
Suppression	6	18
EMS	1	2
Other	2	3

☐ Check if counts include mutual aid resources

G2 Dollar Loss & Values

LOSSES:		NONE
Property	3000000	☐
Contents	0	☑
PRE-INCIDENT VALUE		
Property	3000000	☐
Contents	0	☑

Completed Modules

☑ Fire-2
☐ Structure-3
☐ Civ. Casualty-4
☑ Fire Casualty-5
☐ EMS-6
☐ Hazmat-7
☐ Wildland-8
☐ Apparatus-9
☐ Personnel-10
☐ Arson-11

H1 Casualties

☐ None

	Deaths	Inj.
Fire Service	0	1
Civilian	0	0

H2 Detector Alerted Occupants

1 ☐ Yes
2 ☑ No
U ☐ Unknown

H3 Hazmat Release

N ☑ None
1 ☐ Natural Gas
2 ☐ Propane Gas
3 ☐ Gasoline
4 ☐ Kerosene
5 ☐ Diesel Fuel/Fuel Oil
6 ☐ Household Solvents
7 ☐ Motor Oil
8 ☐ Paint
0 ☐ Other

I Mixed Use Property

NN ☐ Not Mixed
10 ☐ Assembly Use
20 ☐ Education Use
33 ☐ Medical Use
40 ☐ Residential Use
51 ☐ Row of Stores
53 ☐ Enclosed Mall
58 ☐ Business & Resid.
59 ☐ Office Use
60 ☑ Industrial Use
63 ☐ Military Use
65 ☐ Farm Use
00 ☐ Other Mixed Use

1st Company to Arrive
1304

J Property Use
615
Electric generating plant

Escondido Fire Department | 12/22/2010 | 0011083 | 0

K1 Person / Entity Involved

Business name (if applicable) | Phone

Check if same address as incident

Prefix | First Name | MI | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City

State | Zip

K2 Owner

Same as Person Involved

Business name (if applicable) | Phone

Check if same address as incident

Prefix | First Name | MI | Last Name | Suffix

Number | Prefix | Street or Highway | Street Type | Suffix

Post Office Box | Apt./Suite/Room | City

State | Zip

L Remarks

Comments for this incident have been printed on an additional comments page.

M Authorization

JVT	X JOHN TENGER	Battalion	Suppressio	12/23/2010
Officer in charge ID		Position or Rank	Assignment	Date
HG1	X HERB GRIFFIN	Battalion	Suppressio	12/23/2010
Member Making Report		Position or Rank	Assignment	Date

Escondido Fire Department

A

FDID	State	Incident Date	Station	Incident Number	Exposure
37070	CA	12/22/2010	01	0011083	000

☐ Delete
☐ Change
☐ No Activity

NFIRS-2 Fire

B Property Details

B1 0 — No. of residential units in building of origin — ☑ Not Residential

B2 1 — No. of buildings involved — ☐ Bldgs not involved

B3 0 — Acres burned (outside fire) — ☑ None — ☐ Less than one acre

C On -Site Materials or Products — ☐ None

515 — Heavy oils, grease, non-cooking relat — On-site materials (1)
1 ☐ Bulk storage or warehousing
2 ☐ Processing or manufacturing
3 ☐ Packaged goods for sale
4 ☑ Repair or Service

On-site materials (2)
1 ☐ Bulk storage or warehousing
2 ☐ Processing or manufacturing
3 ☐ Packaged goods for sale
4 ☐ Repair or Service

On-site materials (3)
1 ☐ Bulk storage or warehousing
2 ☐ Processing or manufacturing
3 ☐ Packaged goods for sale
4 ☐ Repair or Service

D Ignition

D1 UU — Area of origin — Undetermined

D2 UU — Heat Source — Undetermined

D3 UU — Item first ignited — Undetermined

D4 UU — Type of material first ignited — Undetermined

☐ Confined to item

E1 Cause of Ignition ☐ Exposure Report
1 ☐ Intentional
2 ☐ Unintentional
3 ☐ Failure of equipment
4 ☐ Act of nature
5 ☑ Cause under investigation
U ☐ Undetermined after invest.

E2 Factors Contributing ☐ None
UU — Undetermined — Factor contributing to ignition (1)
Factor contributing to ignition (2)

E3 Human Factors Contributing to Ignition
1 ☐ Asleep ☑ None
2 ☐ Possibly impaired by alcohol or drugs
3 ☐ Unattended person
4 ☐ Mentally disabled
5 ☐ Physically disabled
6 ☐ Multiple persons
7 ☐ Age was a Factor

Estimated age
1 ☐ Male 2 ☐ Female

F1 Equipment Involved in Ignition ☐ None

221 — Transformer, distribution type — Equipment involved

Brand: Unknown
Model:
Serial #:
Year:

F2 Equipment Power

11 — Electrical line voltage (>=50 vo — Equipment Power Source

F3 Equipment Portability
1 ☐ Portable
2 ☑ Stationary

Portable equipment normally can be moved by one person, is designated to be used in multiple locations.

G Fire Suppression Factors ☐ None

313 — Significant/unusual fuel load from co — Fire suppression factor (1)
Fire suppression factor (2)
Fire suppression factor (3)

H1 Mobile Property Involved ☑ None
1 ☐ Not involved in ign, burned
2 ☐ Involved in ign, did not burn
3 ☐ Involved in ignition and burned

H2 Mobile Property Type & Make

Mobile property type
Mobile property make
Mobile property model
Year
License Plate Number
State
VIN Number

Local Use
☐ Pre-Fire Plan Available

Some of the nformation presented in this report may be based upon reports from other agencies:
☐ Arson report attached
☐ Police report attached
☐ Coroner report attached
☐ Other reports attached

Exhibit 44B

SDGE

Southern California Gas Company

Sempra Energy utilities

Pamela J. Fair
Vice President
Environmental, Safety & Facilities

8330 Century Park Court
San Diego, CA 92123-1530

Tel: 858.650.6108
Fax: 858.650.6106
PFair@SempraUtilities.com

May 10, 2011

Ms. Lisa Hildebrand
City Manager
City of Carlsbad
1200 Carlsbad Village Drive
Carlsbad, CA 92008

Dear Ms. Hildebrand:

Within the recent past our respective staff have been working together to understand criteria necessary to potentially relocate the San Diego Gas & Electric Company operations center from its current location at the corner of Carlsbad Boulevard and Cannon Road.

We believe everyone is aware that completing any relocation is contingent on the successful resolution of many issues both internal and external to San Diego Gas & Electric Company and the City, Including but not limited to regulatory approval from the California Public Utilities Commission.

This letter is not intended to present a comprehensive list of those issues, but rather to provide the City with a programming list of requirements for a new site and operations center, starting with the amount of land that is required and a description of the existing facility, which must be replaced in kind. That list is attached, and it is our hope that the City will find it useful as our discussions concerning a possible relocation continue.

Sincerely,

Pamela Fair

Pamela J. Fair
Vice President
Environmental, Safety and Support Services

Enclosure

cc: City of Carlsbad: Gary Barberio, David Hauser, Joe Garuba
SDG&E: Legal, Public Affairs, Corporate Real Estate

North Coast Existing Site Improvements					
The North Coast C&O site is approximately 19 acres. Hours of Operation are 5:30am to 12:00am M-F. The site topography is a rolling landscape and covered with aggregate concrete pavement. Poured concrete pavement is placed surrounding the Garage / Workshop buildings for large vehicle traffic and parking. Underground storage tanks and fuel islands exist on site. Lighting is provided by Lamppost structures through the yard.					
Total Headcount					
Field Employees	134				
Seated Employees	43				
Site Parking					
Employee Parking	200+ Spaces				
Fleet parking 166 vechiles	parked throughout the yard				
Existing Site Improvments	32,800 SQFT				
Old Hilda's Café	5,209 SQ.FT. - Stand alone single storystructure.				
	single story wood framed, wood siding, built up roof over plywood over wood trusses. Composite roof over plywood over wood trusses				
Office	8,500 SQ. FT. - Office Building				
	Block Wall Construction, Steel Framed Structure, Metal Roof deck over open web joist.				
Garage / Workshop	4,515 SQ.FT. - High bay single story attached structure				
	Block Wall Construction, High Bay Steel Framed Structure, Metal Roof deck over open web joist.				
Warehouse / Storage	12,685 SQ.FT. - High bay attached Structure				
	Block Wall Construction, High Bay Steel Framed Structure, Metal Roof deck over open web joist.				
Temporary Trailers	1,038 SQ.FT - Temporary trailer 1				
Hazmat Building	520 SQ.FT - Stand alone single story structure				
	Metal Siding, Steel Framed Structure, Metal Roof deck over open web joist.				
Covered Storage	Open ended shade structure				
	Metal Siding, High Bay Steel Framed Structure , Metal Roof				

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)

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South Carlsbad Coastal
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*indicates change

DECLARATION OF SERVICE

I, R. Nuschy, declare that on 6.7, 2011, I served and filed copies of the attached Letter and Evidence, dated 6.7, 2011. 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.

Robin Nuschy

*indicates change