Proceeding No.: I.08-11-007
Exhibit No.:
Witness: Darren Weim

DIRECT TESTIMONY OF

DARREN WEIM

SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
May 18, 2009

SDGE

DIRECT TESTIMONY OF
DARREN WEIM
SAN DIEGO GAS & ELECTRIC COMPANY

Q: Please state your name and title.

A: Darren Weim, SDG&E Project Manager.

Q: What are your current responsibilities at SDG&E?

A: Until recently, I was Project Manager for the Major Projects section. My new title is Transmission Engineering and Design Manager.

Q: What is the purpose of your testimony in this proceeding?

A: I am testifying regarding SDG&E's inspection and maintenance program and also, specifically, regarding SDG&E's inspections of the span between SDG&E poles 196394 and 196387.

Q: Have you ever been involved with the inspection and maintenance program at SDG&E?

A: Yes. I was the Supervisor of SDG&E's Program Management group from August 2005 through August 2007.

Q: What were your responsibilities as the Supervisor of SDG&E's Program Management group?

A: I supervised SDG&E's Electric Distribution Corrective Maintenance Program pursuant to General Order 165 by providing guidance and support with respect to the overall program. I oversaw weekly, monthly, and annual internal reporting of Corrective Maintenance Program inspections, repairs, and budget. I also oversaw updates to the Corrective Maintenance Program Manual and relevant Electric Standard Practices. I oversaw the training of district personnel for Corrective Maintenance Program inspections and repairs.

Q: Did you supervise anyone in that capacity?

A: Yes. At the time I left that position, I supervised 6 employees – one Technical Advisor who provided training and updates to the manual and standard practices, one Project Coordinator who provided accounting and budget support, one Engineering Analyst who compiled Corrective Maintenance Program reporting information, one Technical Support Assistant who assisted with

coordination of training and assisted with reliability job packages, one engineer who coordinated proactive cable replacement and reliability jobs, and one temporary employee who worked on a street light mapping project.

Q: Are you qualified to testify as to SDG&E's inspection program with respect to distribution lines, such as the lines at issue in this proceeding?

A: Yes. I supervised SDG&E's Corrective Maintenance Program for two years, and I am a licensed Professional Engineer.

Q: Does SDG&E inspect its poles and conductors?

A: Yes.

Q: What is SDG&E's inspection program with respect to overhead distribution lines?

A: The primary focus of SDG&E's Corrective Maintenance Program is to comply with General Order 165. SDG&E's inspection cycles are based on the cycles prescribed in General Order 165. (General Order 165, Appendix A at page A-4.) SDG&E conducts patrol inspections every two years for facilities in rural areas as defined by General Order 165. Poles 196394 and 196387 are located in an area defined as rural. Patrols are simple visual inspections of applicable utility structures and equipment, and they can be drive by, fly by, or walk-by patrols of SDG&E facilities. (General Order 165, Appendix A at page A-1.) SDG&E conducts detailed overhead visual inspections of its facilities ("OHVI" or "detailed overhead inspections") every five years. General Order 165 defines a "Detailed" inspection as "one where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic tests, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each rated and recorded." (General Order 165, Appendix A at page A-1.)

Q: How would you describe the quality of SDG&E's overhead inspection program?

A: SDG&E's Corrective Maintenance Program is well regarded in the state of California and elsewhere. My understanding is that our inspection program methodology and objectives were used to help lay the groundwork for General Order 165, and SDG&E's Corrective Maintenance Program was approved by the CPSD as being in compliance with General Order 165. Audits of SDG&E's system pursuant to General Order 95, General Order 128, and General Order 165 have

consistently shown a high level of performance. SDG&E's Corrective Maintenance Program has been looked at by other utilities, including a utility outside of the United States, as a model for improving their existing programs or for developing new programs. SDG&E's Corrective Maintenance Program is also well regarded by industry organizations, which is apparently how SDG&E was identified as a model by a utility outside the United States. SDG&E's Corrective Maintenance Program, as approved by the CPSD, sets forth a goal of completing repairs of any infractions noted during inspections within 12 months. Other utility programs set longer windows for completion of repairs. SDG&E also excels with respect to data collection and reporting of infractions identified. For example, SDG&E was one of the first utilities to utilize mobile data terminals (MDTs) instead of manual collection of data on paper or reliance on paper maps.

Q: Does SDG&E's inspection program comply with General Order 165?

A: Yes. SDG&E filed its initial General Order 165 compliance plan, which sets forth SDG&E's Corrective Maintenance Program, with the CPUC on July 1, 1997. The plan was effective as of January 1, 1998, and remains in effect today. The plan sets the maximum intervals allowed between inspections for various types of electric distribution equipment. The timeline for repairs was also included as referenced above. SDG&E also adheres to General Order 165 by filing an annual General Order 165 report with the CPUC regarding inspections completed. Third party and foreign utility infractions on SDG&E's system continue to be included year to year in the report as well.

Q: Who performs patrol inspections?

A: Troubleshooter personnel generally conduct patrol inspections. From time to time, Line Checkers conduct patrol inspections.

Q: What is a troubleshooter and what kind of training do they receive with respect to performing patrol inspections?

A: Troubleshooters are qualified electrical workers who have completed an extensive amount of classroom training, skills training, and on the job training. Troubleshooters are first responders and are among the company's most highly skilled personnel as they are trained to

recognize obvious safety hazards and to make conditions safe for the public and employees. Specific training for troubleshooters related to General Order 165 patrol inspections includes familiarization with types of obvious structural hazards as that relates to General Order 165, General Order 95, and General Order 128, training on completion of the patrol inspection record form and marking of facility maps to track facilities patrolled.

Q: How frequently do troubleshooters receive training?

A: As described above, troubleshooters receive initial training before conducting patrols, and that training is refreshed annually, or as necessary.

Q: Can you describe generally what troubleshooters are looking for on patrol inspections?

A: Troubleshooters look for obvious structural problems and hazards, such as damaged cross-arms or badly leaning poles.

Q: Who performs detailed overhead inspections?

A: Line Checker personnel located at the Construction and Operations districts generally perform detailed overhead inspections. From time to time, Journeyman Linemen also conduct detailed overhead inspections depending on the status of inspections and availability of resources.

Q: What is a Line Checker and what kind of training does a Line Checker receive with respect to performing detailed overhead inspections?

A: A Line Checker is an individual whose primary job function is to inspect overhead distribution lines. Line Checkers receive initial training consisting of a review of the Electric Distribution Corrective Maintenance Program Manual, General Order 95, relevant Electric Standard Practices and Construction Standards, inspection codes, Mobile Data Terminal (MDT) training, equipment familiarization, and on the job training with an experienced Line Checker. Annual refresher training consists of presentations from relevant departments on common issues/concerns, a review of codes and updates to the Corrective Maintenance Program Manual, Standard Practices, General Order 95 rule changes, and Construction Standards that relate to detailed overhead inspections.

Q: If Journeyman Linemen perform detailed overhead inspections from time to time, do they receive the same training as Line Checkers?

A: Yes. They receive initial training consisting of a review of the Electric Distribution Corrective Maintenance Program Manual, General Order 95, relevant Electric Standard Practices and Construction Standards, inspection codes, Mobile Data Terminal (MDT) training, equipment familiarization, and on the job training with an experienced Line Checker. Annual refresher training consists of presentations from relevant departments on common issues/concerns, a review of codes and updates to the Corrective Maintenance Program Manual, Standard Practices, General Order 95 rule changes, and Construction Standards that relate to detailed overhead visual inspections. Similar to Troubleshooters, Journeyman Linemen are qualified electrical workers with an extensive amount of classroom training, skills training, and on the job training.

Q: Can you describe generally what Line Checker personnel or Journeyman Linemen are looking for on detailed overhead inspections?

A: They look for General Order 95 infractions and conditions that do not comply with SDG&E's overhead distribution construction standards, which exceed the requirements of General Order 95 in some cases. They also identify additional reliability and discretionary conditions that can affect system reliability and are repaired based on case-by-case evaluations.

Q: As a general matter, what happens if SDG&E's inspectors find potential infractions/issues?

A: For patrols, troubleshooters notate any obvious structural problems and hazards on a Patrol Inspection Record Form, which is then entered in the Distribution Inspection and Maintenance System (DIMS) for follow-up by an Electric Distribution Construction Supervisor or crew. The troubleshooter will stay on site until an electric crew can arrive to make it safe if the condition identified poses an immediate threat to the public. For detailed overhead inspections, Line Checkers enter infractions on-site in DIMS via their MDTs. Electric Distribution Construction Supervisors and Operations Assistants monitor the backlog of conditions found on inspections to ensure that repairs are made within 10-12 months from the month they were identified.

Q: On what dates were poles 196394 and 196387 inspected before October 22, 2007?

Inspections of Pole 196394

Date of Inspection	5/22/1998	5/08/2000	4/19/2002	6/02/2002	5/17/2003	1/06/2005	6/22/2007	8/30/2007
Inspection Type	Patrol	Patrol	Overhead Visual (OHVI)	Patrol	Intrusive Wood Pole Inspection	Patrol	Overhead Visual (OHVI)	Patrol

Inspections of Pole 196387

Date of Inspection	6/15/1998	5/08/2000	12/17/2000	6/02/2002	4/30/2003	1/06/2005	4/08/2005	8/30/2007
Inspection Type	Patrol	Patrol	Overhead Visual (OHVI)	Patrol	Intrusive Wood Pole Inspection	Patrol	Overhead Visual (OHVI)	Patrol

Q: On the patrol inspection on August 30, 2007, were any potential infractions noted with respect to poles 196394 or 196387 or the conductors in that span?

A: No known infractions were noted as to the poles, associated equipment and hardware, or span conductors.

Q: Were any conditions noted during the last detailed inspections of 196394 and 196387 prior to October 22, 2007?

A: Missing or damaged high voltage or warning signs were noted and subsequently repaired on-site at the time of inspection or within SDG&E's timeline for repair of infractions. During previous inspections of these poles, similar conditions of damaged or missing warning signs had been noted and remedied.

Q: Prior to October 22, 2007, were any clearance issues ever noted with respect to the span between poles 196394 and 196387?

A: No. According to SDG&E's inspection records, no clearance issues were noted with respect to this span.

Q: Are you aware that a survey done after the Guejito Fire indicated that there was a vertical clearance of 3.1 feet between Cox's facilities and SDG&E's conductors at the closest points between those lines?

A: Yes.

Q: If the clearances determined by the survey existed before the Guejito Fire, is there any reason SDG&E's inspectors would not have noticed a mid-span clearance issue with respect to this span, if one existed at the time of an inspection?

A: I can think of several reasons. Consistent with General Order 165, Line Checkers focus on the General Order 95 compliance of SDG&E's facilities. SDG&E does not and cannot comprehensively inspect for potential problems with telecommunications facilities that are attached to SDG&E's poles. Proper inspection and maintenance of those facilities is the responsibility of the telecommunications companies, such as Cox Communications. SDG&E's inspectors do check for and note obvious problems with telecommunications facilities when such problems impact SDG&E facilities or raise safety concerns, along with over 60 additional

overhead condition codes they are checking for in the course of those inspections (ranging from the most common occurrences of missing/damaged high voltage signs or damaged ground moldings to damaged equipment). As a general matter, detailed overhead inspections start at the physical pole location and the pole and associated hardware and equipment on the pole is inspected. The electric conductors attached to the pole are then visually inspected to identify suspected issues. If an issue is suspected, a closer look will be given with binoculars or a spotting scope if necessary. If no suspected infractions are identified, the additional tools will not be utilized and no conditions will be noted by the Line Checker in DIMS. With respect to this particular span, the clearances at the poles were likely observed to be General Order 95 compliant (compliance at the poles was confirmed by the post-fire survey), so that likely would not have raised any concerns regarding mid-span clearance. Absent any reason to suspect a mid-span clearance issue, it would have been very difficult for a Line Checker to detect such an issue due to the change in elevation, difficult terrain, and length of this span.

Q: Do you believe that SDG&E complied with General Order 165 and General Order 95, Rule 31.2?

A: Yes, for the reasons described above.

QUALIFICATIONS

My name is Darren Weim. My business address is 8330 Century Park Court, San Diego, California, 92123. I received a Bachelor of Science degree in Civil Engineering, from California Polytechnic State University, San Luis Obispo, in June 2000. While I was attending college, I worked part time with a land surveying crew. In July 2000, I began full time employment with San Diego Gas & Electric Company. From July 2000 through January 2002, I took part in an engineering rotation program working in several locations around the company. From January 2002 through January 2004, I worked in the Civil/Structural Engineering group. In June 2003, I received my Professional Engineering certification in Civil Engineering. From January 2004 through August 2005, I worked in the Electric Transmission Engineering and Design group. From August 2005 through August 2007, I supervised the Corrective Maintenance Program team, or Program Management team. From August 2007 until very recently, I have been a Project Manager for the Major Projects group. My new title is Transmission Engineering and Design Manager.