

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Petition of San Diego Gas & Electric  
Company (U 902 E) to Adopt, Amend,  
or Repeal a Regulation Pursuant to Pub.  
Util. Code § 1708.5

Petition 07-11-007  
(Filed November 6, 2007)

**REPORT OF THE CONSUMER PROTECTION AND SAFETY DIVISION  
REGARDING THE GUEJITO, WITCH AND RICE FIRES**

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September 2, 2008

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*Pursuant to the Decision Denying Petition for Rulemaking, dated May 29, 2008 (D.08-05-030), the Consumer Protection and Safety Division (CPSD) hereby submits its reports regarding the October 2007 wildfires. The investigation reports are attached hereto.*

**I. INTRODUCTION**

Towards the end of October 2007, several severe wildfires swept through Southern California. Massive evacuations, road closures and power outages impacted many Californians; as thousands of firefighters bravely fought the flames. People died as a result of these fires, and thousands of families lost their homes. In the wake of these devastating fires, the state of California was faced with two important questions:

- 1) What caused these fires?
- 2) What can we do to protect Californians from future fires?

**II. THE CONSUMER PROTECTION AND SAFETY DIVISION'S  
INVESTIGATION**

Three of the fires in San Diego Gas & Electric's (SDG&E) territory were linked to power lines. These were the Guejito, Witch and Rice fires. The California Public Utilities Commission's (CPUC) Consumer Protection and Safety Division (CPSD) investigated these fires to determine whether any utility facilities linked to the fires were in violation of the CPUC's regulations.

The investigation was focused and thorough. CPSD inspected the fire origin sites for all three fires, took photographs and examined evidence. Throughout the investigation, CPSD cooperated with other governmental agencies, including the California Department of Forestry and Fire Protection (CalFire), in order to gather and analyze the facts. CPSD also reviewed numerous documents, including: weather data, outage reports, relay data, tree inspection and trimming records, technical specifications, diagrams, communications, and photographs. CPSD interviewed witnesses, who were at times subpoenaed to testify under oath, in order to ensure that a truthful factual record was developed.

CPSD remains appreciative to the CPUC for denying without prejudice SDG&E's Petition for Rulemaking in this docket. That decision provided CPSD with the opportunity to spend its resources discovering and analyzing the underlying facts of these fires. It is essential to gather the facts about an event before drawing conclusions about how to solve the underlying problem. This approach results in more informed decision-making, which ultimately is the best way to protect the safety of Californians.

### **III. WHAT CAUSED THESE FIRES? (INVESTIGATION FINDINGS)**

The investigation focused in on the requirements of General Order (GO) 95, but also covered other areas of regulatory compliance. The attached reports contain these key CPSD findings, which are summarized here:

**Guejito Fire:** A Cox Communications (Cox) lashing wire contacted an SDG&E 12 kV conductor during Santa Ana wind conditions, starting a fire. It is CPSD's opinion that Cox was in violation of GO 95, Rules 31.1 and 31.2 at the time of the fire.

**Witch Fire:** SDG&E's 69 kV overhead conductors contacted each other during Santa Ana wind conditions, starting a fire. It is CPSD's opinion that SDG&E was in violation of GO 95, Rules 31.1 and 38 at the time of the fire.

**Rice Fire:** A sycamore tree limb broke and fell onto SDG&E's 12 kV conductors during Santa Ana wind conditions, starting a fire. It is CPSD's opinion that SDG&E was in violation of GO 95, Rule 31.1 at the time of the fire.

#### **IV. WHAT CAN WE DO TO PROTECT CALIFORNIANS FROM FUTURE FIRES? (INVESTIGATION RECOMMENDATIONS)**

Based on the facts learned during this investigation, CPSD has several recommendations regarding steps that the CPUC can take in order to help protect Californians from such events in the future. The attached reports contain these key recommendations, which are summarized here:

**Guejito Fire:** CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which Cox violated GO 95, Rules 31.1 and 31.2 with respect to Cox's maintenance and inspection of its lashing wire.

In addition, CPSD's investigation revealed that there are other communication facilities in San Diego County with broken lashing wires indicating that this may be a more widespread problem. In order to protect public safety and ensure continued reliability of the utility system, CPSD recommends that the CPUC issue a separate Order Instituting Rulemaking (OIR) into whether or not GO 165 requirements or similar maintenance and inspection requirements should be applied to all Communications Infrastructure Providers utilizing electric utility poles.

**Witch Fire:** CPSD recommends that the CPUC issue an OII into this matter to examine the extent to which SDG&E violated General Order 95, Rule 31.1 and Rule 38. The OII should also consider whether or not SDG&E should conduct a survey of its transmission and distribution lines to determine all the locations where conductor clearances are potentially in violation of Rule 38 and adopt remedial measures, where necessary, to ensure that conductors maintain the minimum required clearances.

**Rice Fire:** CPSD recommends that the CPUC issue an OII into this matter to examine the extent to which SDG&E violated GO 95, Rule 31.1. Included in this OII, the Commission should determine whether or not SDG&E should be directed to immediately review and streamline its vegetation management procedures.

Because both the Witch and Rice recommendations involve the same utility, the CPUC can consider whether to combine the two OIIs or conduct them separately.

During the course of these investigations, the attached reports document that SDG&E did not provide full cooperation with CPSD in a timely manner. Thus, CPSD also recommends that the CPUC include as an issue in the SDG&E OII(s) the lack of cooperation of SDG&E and issue an order clarifying that utilities must cooperate fully with CPSD and provide immediate access to witnesses, sites, or any other evidence requested by the CPUC in the course of a CPSD investigation.

**V. CONCLUSION**

CPSD hopes to play a central role in assisting the CPUC in developing its responsive measures to these fires. CPSD will also continue to work with governmental agencies, utilities, and other stakeholders to ensure that effective steps are taken to protect Californians from future fires.

Respectfully submitted,

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/s/ RICHARD W. CLARK

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SEPTEMBER 2, 2008

**California Public Utilities Commission  
Consumer Protection and Safety Division  
Utilities Safety and Reliability Branch**

**Investigation of the Guejito Fire  
San Pasqual, California  
October 2007**

**Prepared by  
Mahmoud (Steve) Intably, Utilities Engineer  
September 2, 2008**

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## I. EXECUTIVE SUMMARY

On October 22, 2007, a Cox Communications (Cox) lashing wire made contact with a San Diego Gas and Electric Company (SDG&E) 12 kV overhead conductor between SDG&E poles P196387 and P196394 in San Pasqual Valley.

The July 9, 2008 California Department of Forestry and Fire Protection's (CalFire) report on the fires (CalFire Report) states that the Guejito Fire started when these energized power lines and this Cox lashing wire came in contact with each other. This fire has been variously referred to as: the Pasqual Fire, the San Pasqual Fire, and the Guejito Fire. This fire will hereinafter be referred to as the Guejito Fire.

The Consumer Protection and Safety Division (CPSD) of the California Public Utilities Commission (CPUC) investigated this incident. Based upon all the evidence made available to it, it is CPSD's opinion that Cox was in violation of CPUC General Order (GO) 95, Rules 31.1 and 31.2 at the time of the incident. GO 95, Rule 31.1 requires a utility's facilities to be designed, constructed, and maintained, in order to enable safe, proper and adequate service, and Rule 31.2 requires a utility to inspect facilities frequently and thoroughly in order to ensure that they are in good condition.

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which Cox violated GO 95 and a separate Order Instituting Rulemaking (OIR) into whether or not GO 165 requirements or similar maintenance and inspection requirements should be applied to all Communications Infrastructure Providers.



## **II. INTRODUCTION**

On October 22, 2007, at approximately 4:00 a.m., the Guejito Fire started in San Pasqual Valley. The CalFire Report states that the fire originated between SDG&E poles P196387 and P196394. SDG&E records show that faults on its lines caused an interruption of power to customers in the San Pasqual area at approximately the same time. The CalFire Report stated that property damage attributed to the Guejito Fire is unknown.

## **III. REPORT OF INVESTIGATION CONDUCTED BY MAHMOUD (STEVE) INTABLY**

In late October of 2007, CPSD staff learned that there were multiple fires that occurred within SDG&E's service territory. One of the fires was the Guejito Fire that started on October 22, 2007, in San Pasqual Valley. Initially, it was not known which fires were caused by electrical facilities.

On November 6, 2007, I contacted an official of SDG&E and requested that he arrange an inspection at the site of the Guejito Fire, and interviews of the SDG&E personnel who witnessed the fire. The SDG&E official informed me that another representative from SDG&E would meet with me at the site of the fire and show me the SDG&E facilities that were involved. The SDG&E official also informed me that I would not be allowed to interview SDG&E personnel because SDG&E had not yet completed its investigation. He instructed me to contact SDG&E's attorneys to determine when CPSD staff would be allowed to interview SDG&E personnel.

On November 7, 2007, SDG&E sent an email to CPSD reporting that the Guejito Fire started on October 22, 2007, in San Pasqual Valley. The e-mail notification did not include specific details about the cause of the fire.

On November 9, 2007, I met with an SDG&E representative at the site of the Guejito Fire's suspected origin and took photographs of utility facilities and damaged

property. He refused to answer specific questions about the fire/incident and informed me that he was only available to show me the site of the fire/incident.

During the week of November 12, 2007, a CPUC Assistant General Counsel in Legal Division Management contacted an SDG&E attorney and discussed the CPUC's jurisdiction and authority. The SDG&E attorney subsequently indicated that he would look into the issue of arranging interviews with SDG&E's employees/witnesses.

On December 13, 2007, an SDG&E Construction Supervisor told me that he believed that a broken communications lashing wire had made contact with SDG&E's 12 kV south phase overhead conductor on October 22, 2007. SDG&E indicated that it had examined the 12 kV overhead conductor and found that a section of the lashing wire was affixed to it.

Communication facilities such as telephone and cable television cables and equipment are routinely attached to poles owned and operated by electric utilities. Such facilities are required to comply with GO 95 requirements applicable to communication lines.

On February 9, 2008, I examined some of the utility facilities at the scene of this incident. I also examined certain evidence related to this incident, which was in the custody of CalFire.

On February 28, 2008, SDG&E provided several documents regarding this incident, in response to data requests from CPSD. SDG&E's response included weather data it appeared to have obtained from the Western Region Climate Center website (<http://www.wrcc.dri.edu/>). This weather data reflected maximum wind speeds measured on October 22, 2007 as:

- Goose Valley, California 55.0 mph
- Valley Center, California 52.0 mph

I have subsequently researched historic weather data for the affected area and have determined that the above wind speeds are not uncommon for this area.

On July 9, 2008, the CalFire Report was released. The CalFire Report indicated that the Guejito Fire started when energized power lines and a Cox lashing wire came in contact with each other between SDG&E poles P196387 and P196394.

On July 23, 2008, I conducted a phone interview of Cox employees. I asked questions about this incident, and obtained some information in response. Cox also provided its perspective regarding this incident.

In a data response dated February 29, 2008, Cox stated that it had not re-inspected the lashing wire in question between the date of the initial installation of the lashing wire (in 2001) and October 22, 2007. This fact was confirmed during my July 23, 2008 phone interview with Cox.

I have subsequently inspected Cox facilities in various areas in San Diego County and found locations where Cox lashing wires were broken. I also found locations where lashing wires were broken on facilities owned by other communication infrastructure providers.

Throughout the course of this investigation, CPSD communicated with and obtained information from CalFire. Among other things, CalFire provided photographic evidence of the broken lashing wire in question.

Lashing wires are used in the communications industry to bind together aerial cables and support strand wires. The lashing wire in question was 0.045 inches in diameter, made of stainless steel, Grade 430, and manufactured by Maryland Specialty. The lashing wire was used to bind the following Cox facilities:

1. Fiber optic cable: type and size - 12 count, 0.44 inches in diameter, 52 pounds per 1000 feet in weight.
2. Messenger strand: 0.25 inches in diameter and made of galvanized steel.

The 12 kV overhead conductor that came in contact with the lashing wire in question was #4 Bare Strand Copper with a nominal breaking strength of 1879 pounds. The conductor was suspended between SDG&E poles P196394 (installed in 1974) and P196387

(installed in 1988) located near 17141 Pasqual Valley Road. The distance between these poles is approximately 887 feet

The exact vertical midspan clearance between SDG&E's 12 kV conductors and Cox's cable prior to the incident is unknown. Neither SDG&E nor Cox measured the vertical clearance before making repairs and modifications to their facilities following the incident.

#### IV. FINDINGS

The following rules require utilities to design, construct, maintain, and inspect their facilities in order to protect public safety.

GO 95, Rule 31.1, Design, Construction and Maintenance, states:

*“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.*

*For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.*

*All work performed on public streets and highways shall be done in such a manner that the operations of other utilities and the convenience of the public will be interfered with as little as possible and no conditions unusually dangerous to workmen, pedestrians or others shall be established at any time.”*

GO 95, Rule 31.2, Inspection of Lines, states:

*“Lines shall be inspected frequently and thoroughly for the purpose of insuring that they are in good condition so as to conform with these rules. Lines temporarily out of service shall be inspected and maintained in such condition as not to create a hazard.”*

Based upon all the evidence made available to it, it is CPSD's opinion that the lashing wire in question was broken and that the lashing wire and power line came in contact with each other. Moreover, the winds experienced on October 22, 2007 were not uncommon for the area. Therefore, based upon all the evidence made available to it, it is CPSD's opinion that Cox did not maintain and inspect its facilities properly, allowed the

lashing wire to break, and thus created an unsafe condition, in violation of GO 95, Rules 31.1 and Rule 31.2.

## **V. CONCLUSIONS AND RECOMMENDATIONS**

As a result of this investigation, it is CPSD's opinion that a Cox lashing wire made contact with an SDG&E 12 kV overhead conductor on October 22, 2007, between SDG&E poles P196387 and P196394.

It is also CPSD's opinion that Cox failed to inspect and maintain the lashing wire in question in a manner consistent with the requirements of GO 95. CPSD therefore believes that Cox violated GO 95, Rule 31.1 and Rule 31.2.

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which Cox violated GO 95, Rules 31.1 and 31.2 with respect to Cox's maintenance and inspection of its lashing wire. In addition, CPSD's investigation revealed that there are other communication facilities in San Diego County with broken lashing wires. In order to protect public safety and ensure continued reliability of the utility system, CPSD recommends that the CPUC issue a separate Order Instituting Rulemaking (OIR) into whether or not GO 165 requirements or similar maintenance and inspection requirements should be applied to all Communications Infrastructure Providers utilizing electric utility poles.

**California Public Utilities Commission  
Consumer Protection and Safety Division  
Utilities Safety and Reliability Branch**

**Investigation of the Witch Fire  
Near Santa Ysabel, California  
October 2007**

**Prepared by  
Mahmoud (Steve) Intably, Utilities Engineer  
September 2, 2008**

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## **I. EXECUTIVE SUMMARY**

The California Department of Forestry and Fire Protection's (CalFire) report on the fires (CalFire Report), dated July 9, 2008, states that the Witch Fire was started by power lines. The CalFire Report further states that arcing occurred between SDG&E poles Z416675 and Z416676.

The Consumer Protection and Safety Division (CPSD) of the California Public Utilities Commission (CPUC) investigated this incident. Based on upon all the evidence made available to it, it is CPSD's opinion that SDG&E violated CPUC General Order (GO) 95, Rule 31.1 (which requires a utility's facilities to be designed, constructed, and maintained, in order to enable safe, proper and adequate service), and Rule 38 (which requires electric utilities to maintain a minimum 24 inches of radial clearance between conductors of the same circuit).

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which SDG&E violated General Order 95, Rule 31.1 and Rule 38. CPSD also recommends that the CPUC include as an issue in the OII the lack of cooperation of SDG&E and issue an order clarifying that utilities must cooperate fully with CPSD and provide immediate access to witnesses, sites, or any other evidence requested by the CPUC in the course of a CPSD investigation.

## **II. INTRODUCTION**

On October 21, 2007, at approximately 9:00 a.m., the Witch Fire started near Santa Ysabel. SDG&E records show that faults on its lines caused an interruption of power to customers in the San Diego area at around the same time. The fire originated between SDG&E poles Z416675 and Z416676. According to CalFire, the Guejito Fire and the Witch Fire combined into one fire.



The CalFire Report states that the Witch Fire and the Guejito Fire together burned approximately 197,990 acres. Further, the CalFire Report states that two people died and approximately 40 firefighters were injured and that approximately 1,141 homes, 509 outbuildings and 239 vehicles were destroyed; while 77 homes and 25 outbuildings were damaged.

### **III. REPORT OF INVESTIGATION CONDUCTED BY MAHMOUD (STEVE) INTABLY**

On October 22, 2007, at approximately 2:00 p.m., SDG&E called CPSD and reported that beginning on October 21, 2007, Santa Ana winds caused several fires and many circuits were affected in San Diego County. Shortly thereafter, an SDG&E employee sent an email to CPSD to report an incident that started on October 21, 2007, in the San Diego area. SDG&E did not include specific details about the cause of the incident. Initially, it was not known which of the reported fires were caused by electrical facilities.

On November 6, 2007, I contacted an official of SDG&E and requested that he arrange an inspection at the site of the Witch Fire, and interviews of the SDG&E personnel who witnessed the fire. The SDG&E official informed me that another representative from SDG&E would meet with me at the site of the fire and show me the SDG&E facilities that were involved. The SDG&E official also informed me that I would not be allowed to interview SDG&E personnel because SDG&E had not yet completed its investigation. He instructed me to contact SDG&E's attorneys to determine when CPSD staff would be allowed to interview SDG&E personnel.

On November 9, 2007, I met with SDG&E's representative at the site of the Witch Fire's suspected origin at Drown Ranch in San Ysabel and took photographs of utility facilities and damaged property at the site. SDG&E's representative refused to answer specific questions about the fire/incident and stated that he was only available to show me the site of the fire/incident. While at Drown Ranch, I interviewed a resident witness who

indicated where he believed the fire had started on the ranch. The location indicated by the witness is consistent with the CalFire Report.

During the week of November 12, 2007, a CPUC Assistant General Counsel in Legal Division management contacted SDG&E's attorney and discussed CPUC jurisdiction and authority. SDG&E's attorney subsequently indicated that he would arrange interviews with SDG&E's employees/witnesses.

On February 9, 2008, I examined some of the utility facilities at the scene of this incident.

On February 28, 2008, SDG&E provided several documents regarding this incident, in response to data requests from CPSD. SDG&E's response included weather data it appeared to have obtained from the Western Region Climate Center website (<http://www.wrcc.dri.edu/>). This weather data reflected maximum wind speeds measured on October 21, 2007 as:

-	Goose Valley, California	54.0 mph
-	Julian, California	57.0 mph
-	Pine Hills, California	48.0 mph
-	Valley Center, California	50.0 mph

I have subsequently researched historic weather data for the affected area and have determined that the above wind speeds are not uncommon for this area.

In a letter to CPSD, dated June 18, 2008, SDG&E stated that its 69 kV C phase conductor made contact with the A and B phase conductors.

On July 9, 2008, the CalFire Report was released. The CalFire Report indicates that the Witch Fire was started by power lines arcing that occurred between SDG&E poles Z416675 and Z416676.

Throughout the course of this investigation, CPSD communicated with and obtained information from CalFire.

The following SDG&E facilities were involved in the incident:

- Wood pole, number Z416675 with post-type insulators, installed in 1960.
- Wood pole, number Z416676 with post-type insulators, installed in 1960.

- Three 69 kV overhead conductors, each 388 feet in length, consisting of 3/0 ACSR 6/1 (Pigeon).

#### IV. FINDINGS

Based upon the evidence made available to it, it is CPSD's opinion that, at the time of this incident, SDG&E's 69 kV overhead conductors supported on poles Z416675 and Z416676 contacted each other in violation of GO 95, Rule 38.

CPUC GO 95, Rule 31.1, Design, Construction and Maintenance, states:

*“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.*

*For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.*

*All work performed on public streets and highways shall be done in such a manner that the operations of other utilities and the convenience of the public will be interfered with as little as possible and no conditions unusually dangerous to workmen, pedestrians or others shall be established at any time.”*

GO 95, Rule 38, Minimum Clearances of Wires from Other Wires, states:

*“The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2 and are based on a temperature of 60° F. and no wind. ...*

*The clearances in Table 2 shall in no case be reduced more than 10 percent because of temperature and loading as specified in Rule 43 or because of a difference in size or design of the supporting pins, hardware or insulators. All clearances of less than 5 inches shall be applied between surfaces, and clearances of 5 inches or more shall be applied to the center lines of such items.”*

GO 95, Table 2, Case 17H, requires 24 inches of radial separation between conductors of the same circuit on the same pole.

The winds at the time of the incident were not uncommon for the area and should not have caused the clearance to be reduced by more than 2.4 inches.

Based upon the evidence before it, it is CPSD's opinion that SDG&E's 69kV overhead conductors did not have the minimum separation required by GO 95, Rule 38.

It is also CPSD's opinion that SDG&E violated GO 95, Rule 31.1 relative to ensuring that its facilities are designed, constructed, and maintained, in order to enable safe, proper and adequate service.

## **V. CONCLUSION AND RECOMMENDATIONS**

As a result of this investigation, it is CPSD's opinion that SDG&E's 69 kV overhead conductors contacted each other on October 21, 2007 between SDG&E poles Z416675 and Z416676.

It is also CPSD's opinion that SDG&E failed to design, construct, and maintain the affected lines in accordance with GO 95, Rule 31.1 and that SDG&E failed to maintain the clearances between conductors required by GO 95, Rule 38.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which SDG&E violated General Order 95, Rule 31.1 and Rule 38. The OII should also consider whether or not SDG&E should conduct a survey of its transmission and distribution lines to determine all the locations where conductor clearances are potentially in violation of Rule 38 and adopt remedial measures, where necessary, to ensure that conductors maintain the minimum required clearances.

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD also recommends that the CPUC include as an issue in the OII the lack of cooperation of SDG&E and issue an order clarifying that utilities must cooperate fully with CPSD and provide immediate access to witnesses, sites, or any other evidence requested by the CPUC in the course of a CPSD investigation.

**California Public Utilities Commission  
Consumer Protection and Safety Division  
Utilities Safety and Reliability Branch**

**Investigation of the Rice Fire  
Fallbrook, California  
October 2007**

**Prepared by  
Mahmoud (Steve) Intably, Utilities Engineer  
September 2, 2008**

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## I. EXECUTIVE SUMMARY

On October 22, 2007, a sycamore tree limb broke and fell on San Diego Gas and Electric's (SDG&E) 12 kV overhead conductors between SDG&E poles 213072 and 112340, causing the conductors to break and fall to the ground. The July 9, 2008 California Department of Forestry and Fire Protection's (CalFire) report on the fires (CalFire Report) determined that the Rice Fire was started by downed power lines located between SDG&E poles 213072 and 112340.

The Consumer Protection and Safety Division (CPSD) of the California Public Utilities Commission (CPUC) investigated this incident. CPSD found that SDG&E's tree trimming contractor (Davey Tree) had inspected the tree which caused the fire, and had determined that the tree be should be trimmed within three months from the time of the inspection. SDG&E failed to trim the tree within the three-month timeframe, and it is CPSD's opinion that SDG&E was in violation of CPUC General Order (GO) 95, Rule 31.1 at the time of the incident. GO 95, Rule 31.1 requires a utility's facilities to be designed, constructed, and maintained, in order to enable safe, proper and adequate service.

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which SDG&E violated GO 95, Rule 31.1 with respect to its tree trimming practices. CPSD also recommends that the CPUC include as an issue in the OII the lack of cooperation of SDG&E and issue an order clarifying that utilities must cooperate fully with CPSD and provide immediate access to witnesses, sites, or any other evidence requested by the CPUC in the course of a CPSD investigation.

## **II. INTRODUCTION**

On October 22, 2007, at approximately 4:00 a.m., the Rice Fire started in Fallbrook. SDG&E records show that faults on its lines caused an interruption of power to customers in the Fallbrook area at around the same time. The CalFire Report states that the Rice Fire started when a limb from a Sycamore tree broke and fell through a 12 kV overhead conductor located between SDG&E poles 213072 and 112340.

The CalFire Report states that the Rice Fire burned approximately 9,472 acres, destroyed approximately 206 homes, 2 commercial properties, and 40 outbuildings.

## **III. REPORT OF INVESTIGATION CONDUCTED BY MAHMOUD (STEVE) INTABLY**

In late October of 2007, CPSD staff learned that there were multiple fires that occurred within SDG&E's service territory. One of the fires was the Rice Fire that started on October 22, 2007, in Fallbrook. Initially, it was not known which fires were caused by electrical facilities.

On November 6, 2007, I contacted an official of SDG&E and requested that he arrange an inspection at the site of the Rice Fire, and interviews of the SDG&E personnel who witnessed the fire. The SDG&E official informed me that that a representative of SDG&E would meet with me at the site of the fire and show me the SDG&E facilities that were involved. The SDG&E official also informed me that I would not be allowed to interview SDG&E personnel because SDG&E had not yet completed its investigation. He instructed me to contact SDG&E's attorneys in order to determine when CPSD staff would be allowed to interview SDG&E personnel.

On November 7, 2007, SDG&E sent an email to CPSD to report that the Rice Fire started on October 22, 2007, in Fallbrook. The e-mail notification did not include specific details about the cause of the fire.

On November 9, 2007, I met with an SDG&E representative at the site of the Rice Fire's suspected origin and took photographs of utility facilities and damaged property at the site. The SDG&E representative refused to answer specific questions about the



fire/incident and informed me that he was only available to show me the site of the fire/incident.

During the week of November 12, 2007, an Assistant General Counsel in CPUC Legal Division management contacted SDG&E's attorney and discussed CPUC jurisdiction and authority. SDG&E's attorney subsequently indicated that he would arrange interviews with SDG&E's employees/witnesses.

In early January 2008, a CalFire investigator informed me that a limb from a sycamore tree broke and fell onto SDG&E's 12 kV overhead conductors starting the fire. SDG&E's attorney agreed that a limb from a sycamore tree fell on the 12 kV line.

On January 25, 2008, SDG&E stated that the broken limb/branch of the sycamore tree had internal rot. SDG&E also provided records to CPSD which indicated that the sycamore tree in question was inspected on July 18, 2007. The records also showed that, at the time of the inspection, the clearance between the sycamore tree and SDG&E's 12 kV overhead conductors ranged from 6 to 7.9 feet, that the tree was estimated to be 80 feet tall, and that the tree was considered a fast grower, with growth rate of 4 to 6 feet per year.

On February 8, 2008, I visited the site of the Rice Fire and found that the sycamore tree was trimmed away from the 12 kV overhead conductors and its height was reduced.

On February 28, 2008, SDG&E responded to a CPSD data request and provided several documents regarding this incident. SDG&E's response included weather data it apparently obtained from the Western Region Climate Center website (<http://www.wrcc.dri.edu/>). This weather data reflected that the maximum wind speeds measured on October 21, 2007 were:

- Ammo Dump, California 36.0 mph
- Valley Center, California 50.0 mph

This weather data also reflected that the maximum wind speeds measured for October 22, 2007 were:

- Ammo Dump, California 49.0 mph
- Valley Center, California 52.0 mph

This weather data also reflected that the maximum wind speeds measured for October 23, 2007:

- Ammo Dump, California 37.0 mph
- Valley Center, California 50.0 mph

I have subsequently researched historic weather data for the affected area and have determined that the above wind speeds are not uncommon for this area.

Beginning in March of 2008, CPSD conducted examinations under oath and interviews of certain SDG&E and Davey Tree witnesses. These witnesses described what they saw and did regarding such topics as: inspecting the sycamore tree, cutting the sycamore tree on October 22, 2008, and the interaction between SDG&E and Davey Tree.

On March 25, 2008, a CPUC Staff Counsel examined a Davey Tree Pre-trim Inspector under oath. During the examination, the Pre-trim Inspector confirmed that he was the individual who inspected the subject sycamore tree on July 18, 2007. The Pre-trim Inspector indicated that the sycamore tree may have had a direct overhang relative to an electric line. He also stated that the sycamore tree “had fairly vigorous growth” towards the lines. The Pre-trim Inspector confirmed records indicating that on July 18, 2007, he stated that the sycamore tree should be trimmed within three months. When asked the basis of this recommendation, he stated: “it had strong growth towards the lines, and I felt it would encroach in the 4 foot distance from the primary line in the facilities within three months.”

On April 18, 2008, a CPUC Staff Counsel examined an SDG&E Vegetation Management Program Manager under oath. The SDG&E Vegetation Management Program Manager stated that on October 22, 2007, during the morning hours, he received a call from SDG&E’s Fire Coordinator regarding a fire in the Fallbrook area. The

Vegetation Management Program Manager stated that he arrived at the scene around 9 or 9:30 am. The Vegetation Management Program Manager indicated that he found three downed wires. He indicated that one of the wires was lying on the ground and the other two were in adjacent trees. In addition, the Vegetation Management Program Manager observed that a tree limb from the sycamore tree had broken. The Vegetation Management Program Manager stated that he contacted Davey Tree and requested a crew to respond to this incident. The Vegetation Management Program Manager further stated that he visited the site on October 23, 2007 and found that the sycamore tree was reduced to two-thirds of its height.

On April 18, 2008, a CPUC Staff Counsel examined an SDG&E Utility Forester under oath. The Utility Forester indicated that on October 22, 2007, he received a call from the Vegetation Management Program Manager, who asked him to supervise Davey Tree's crew that was working on the Sycamore tree in question. The Utility Forester indicated that, upon his arrival at the scene, he requested that the tree trimming crew trim the tree to a level below the assumed height of the wire.

On May 28, 2008, a CPUC Staff Counsel examined a Davey Tree Foreman under oath. When asked why major portions of the sycamore tree, other than the broken out branch were trimmed, the Davey Tree Foreman indicated that he was following directions. During the course of the investigation, CPSD discovered that the sycamore limb that fell onto the power lines had internal rot. Currently available evidence does not establish whether SDG&E knew about the internal rot.

On July 9, 2008, the CalFire Report was released. The CalFire Report indicated that the Rice Fire was started by downed power lines. The CalFire Report indicated the following wind speeds at the time of the fire:

- Palomar 18 mph, gust to 24 mph.
- Valley Center 24 mph, gust to 47 mph.

Throughout the course of this investigation, CPSD communicated with and obtained information from CalFire.

The following SDG&E facilities were involved in the incident:

- Wood pole, number P112340, installed in 1940.
- Wood pole, number P213072, installed in 1949.
- Three 12 kV overhead conductors, each approximately 353 feet in length, consisting of #4 Bare Strand Copper.

#### IV. FINDINGS

CPUC GO 95, Rule 31.1, Design, Construction and Maintenance, states:

*“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.*

*For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.*

*All work performed on public streets and highways shall be done in such a manner that the operations of other utilities and the convenience of the public will be interfered with as little as possible and no conditions unusually dangerous to workmen, pedestrians or others shall be established at any time.”*

CPUC GO 95, Rule 35, Tree Trimming, states:

*“Where overhead wires pass through trees, safety and reliability of service demand that tree trimming be done in order that the wires may clear branches and foliage by a reasonable distance. The minimum clearances established in Table 1, Case 13, measured between line conductors and vegetation under normal conditions, shall be maintained. (Also see Appendix E for tree trimming guidelines.)*

*When a utility has actual knowledge, obtained either through normal operating practices or notification to the utility, dead, rotten and*

*diseased trees or portions thereof, that overhang or lean toward and may fall into a span, should be removed.”*

Based upon the evidence made available to it, it is CPSD’s opinion that a sycamore tree limb broke and fell onto SDG&E’s 12 kV overhead conductors located between SDG&E poles 213072 and 112340 and caused the conductors to fall down and start the Rice Fire.

SDG&E asserts that the sycamore tree in question was due to be trimmed by November 1, 2007 because they measure the start date of the 3 months from the date that they formally notified Davey to undertake the trimming of the tree. CPSD disagrees and believes that the sycamore tree, from which the broken limb fell, should have been trimmed before October 22, 2007. CPSD believes that SDG&E’s failure to trim the sycamore tree in question, within three months of the inspection, was an unsafe maintenance decision which amounts to a violation of General Order 95, Rule 31.1. While it is also true that the sycamore limb that fell onto the power lines had internal rot, CPSD is currently unable to determine whether SDG&E complied with the provisions in Rule 35 applicable to rotten and diseased trees.

Further, currently available evidence does not establish the clearance between the sycamore tree and SDG&E’s conductors, immediately prior to the incident. When the tree was cut, after the incident occurred, it was cut to a height significantly lower than its original height. SDG&E claims that this was done for safety reasons. It is inconclusive as to whether SDG&E complied with the provisions in Rule 35 applicable to clearances.

CPSD also believes that SDG&E’s inadequate reporting and its unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

## V. CONCLUSION AND RECOMMENDATIONS

Based upon the evidence made available to it, it is CPSD's opinion that a sycamore tree limb broke and fell onto SDG&E's 12 kV overhead conductors located between SDG&E poles 213072 and 112340 and caused the conductors to fall down and start the Rice Fire.

It is also CPSD's opinion that SDG&E violated GO 95, Rule 31.1. CPSD was unable to reach an opinion as to whether SDG&E had violated GO 95, Rule 35.

CPSD also believes that SDG&E's unwillingness to provide immediate access to witnesses and evidence prevented CPSD from conducting a more timely investigation.

CPSD recommends that the CPUC issue an Order Instituting Investigation (OII) into this matter to examine the extent to which SDG&E violated GO 95, Rule 31.1 with respect to its tree trimming practices. Included in this OII, the Commission should determine whether or not SDG&E should be directed to immediately review and streamline its vegetation management procedures.

CPSD also recommends that the CPUC include as an issue in the OII the lack of cooperation of SDG&E and issue an order clarifying that utilities must cooperate fully with CPSD and provide immediate access to witnesses, sites, or any other evidence requested by the CPUC in the course of a CPSD investigation.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of [title of document] in [proceeding number] by using the following service:

**E-Mail Service:** sending the entire document as an attachment to all known parties of record who provided electronic mail addresses.

**U.S. Mail Service:** mailing by first-class mail with postage prepaid to all known parties of record who did not provide electronic mail addresses.

Executed on September 2, 2008, at San Francisco, California.

/s/           JOANNE LARK            
                    JOANNE LARK

**N O T I C E**

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address and/or e-mail address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

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