

NARRATIVE SUMMARY

Establishment Name	Pacific Gas & Electric Company	Inspection Number	311076269
Management Contacted	Alan Meyer John Vocke Brian Trumbull Mark Sweeney Mark Mancini	Title	Subforeman A Attorney Superintendent Attorney Acting Foreman/Person in Charge

Information on Injured Covered by Workers' Compensation Yes X No

Name, Address and Phone Number	Occupation
Maximilian Martinez, Deceased	Journeyman Lineman

Use additional forms(s) as needed.

Witness Name(s) and Title *Check box preceding name if confidentiality is given.

*	Names and Title(s)	Address	Phone No.	Signed Statement?			
				Yes	No		
1	Mark Mancini Journeyman Lineman/Acting Foreman, Person in Charge	[REDACTED]					X
2	Sean Mills Utility Worker	[REDACTED]		Y es	N o		X
3	Alan Meyer Subforeman A	[REDACTED]		Y es	N o		X

SUMMARY

On March 17, 2010 at approximately 10:01 an employee (employee # 1) of Pacific Gas and Electric Company was electrocuted while working inside an energized underground enclosure located immediately west of the sidewalk in the 300 block of Panorama Drive in Benicia, California. The Division learned of the incident from the Benicia Fire Department who filed a report telephonically with the Concord District Office at approximately 10:20. Pacific Gas and Electric Company in turn filed a separate report telephonically with the same District Office at approximately 11:43. The Division arrived on the scene of the incident at approximately 10:55 on March 17, 2010 to open and conduct an inspection.

ACCIDENT DESCRIPTION

At the time of the accident, employee # 1 was working inside a three (3) by five (5) foot energized underground enclosure where he was running cables through a conduit that led to a transformer pad located approximately 10 feet from the underground enclosure. Employee # 1 was part of a crew that was charged with installing a pad mounted 25-Kva dead-front, load break transformer. On the day of the incident, the crew was on-site and in the process of installing two (2) new primary conductors between the energized underground enclosure and said transformer-pad where the above referenced transformer was later to be installed. Employee # 1 pushed the two cables through the conduit from the underground enclosure to the transformer pad. Next the crew worked on lining up the new load break elbows spliced to the underground enclosure end of the cables

with the bushings in the enclosure. To do this, employee # 1 remained in the underground enclosure and the other two crew members (witness #1 and #2) were at the transformer pad where they were pulling and pushing at the un-terminated and un-insulated ends of the cables as needed. At this point, witness #1 and # 2 both went behind their respective trucks to gather tools and supplies, which took 2-5 minutes. While witness # 1 and # 2 were gathering their tools and supplies from behind their trucks, employee # 1 allegedly removed an insulated cap from an energized bushing, cut the associated ground wire and placed the insulated cap on a ledge on the inside of the open vault lid. He allegedly next began to install one of the two new and un-grounded load break elbows of one of the cables they were pushing to the transformer pad onto the energized bushing that was exposed when the cap was removed. The center conductor of the cable associated with the partially installed elbow became energized at primary voltage (7.2kV to ground) and arced at the un-terminated cut end through a small gap between the center and concentric neutral conductors while the outside of the concentric cable and neutral as well as the unattached ground wire of the partially installed elbow were in contact with employee #1. The current traveled from the partially seated load break elbow, through the conductor to the open end of the cable, across the concentric wires and back through employee # 1 to ground. Employee # 1 was subsequently electrocuted.

FINDINGS

- " The enclosure was a 3' by 5' by 3' 6" surface-operable primary electric underground splice enclosure also known as junction box J-8470
- " It was energized at 12000 volts phase to phase and 7200 volts phase to ground
- " Per witness # 1 and # 2 and # 3 as well as Pacific Gas and Electric Company's incident report, a 'tailboard' was not conducted on-site before the crew began work as required under company work procedures
- " The employer failed to identify, evaluate and control hazards to ensure safe access
- " Before work began at the site on the day of the accident, the employer failed to ascertain by inquiry, direct observation, or by instrument whether the work could be performed without contacting energized circuits
- " When the accident occurred, witness # 1 and # 2 were both behind their respective trucks where they had been for 2-5 minutes
- " A minimum working distance of 2.1 feet was not maintained between employee # 1 and the exposed energized bushing
- " No types of physical barriers were present in the enclosure or nearby the accident scene
- " No types of insulating tools were present in the enclosure or nearby the accident scene
- " The load break elbow was operated by hand and not through the use of an extension tool
- " Employee # 1 removed by hand an insulated cap and its associated ground wire from an energized bushing and began to install one of two new load break elbows by hand onto an exposed energized bushing
- " Employee # 1 was not wearing required PPE (gloves)
- " The associated ground wire of the partially seated elbow had not been attached to the ground scheme and was in contact with employee # 1
- " The shielding of the conductor associated with the load break elbow that was partially installed was not attached to the grounding system
- " The end of the cable/conductor associated with the load break elbow that was partially installed was wrapped with electrical tape, was un-terminated and had not been 'aqua sealed'
- " The current traveled from the partially seated load break elbow, through the conductor to the open end of the cable, across the concentric wires and back through employee # 1 to ground
- " Burn marks were found on the sidewalk at the opposite end of the cable, indicating electric arcing at the open end of the cable
- " The doors to the vault did not have warning signs
- " The Solano County Coroner's Report states that employee # 1 died of electrocution

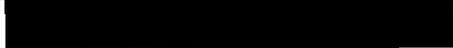
CONCLUSION

The fact that the employer allowed employee # 1 to work in the energized underground enclosure for the purpose of pushing cables to a transformer pad without conducting a 'tailboard' at the site to identify and discuss the worksite hazards and what safeguards to prosecute before permitting the employee to enter and work in the energized underground enclosure lead to multiple additional violations which individually or in concert caused his subsequent electrocution/death.

REGULATORY ACTION

- Title 8, CCR, 2811 Regulatory
1518 (d) Serious
- Title 8, CCR, 2816 (a) Serious Accident Related
- Title 8, CCR, 2820 Serious Accident Related
- Title 8, CCR, 2940 (a) Serious Accident Related Willful
- Title 8, CCR, 2940 (d) Serious
- Title 8, CCR, 2940.2 (a) Serious Accident Related
- Title 8, CCR, 2943 (d) (3) Serious
- Title 8, CCR, 2943 (e) (1) Serious

Use additional sheet(s) as needed.

		Signature	Date
Prepared by:	CSE, IH		9/20/10
Reviewed by:	DM/SR. IH		

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Title 8, CCR, 2943 (e) (1) Serious