



CPUC Public Agenda 3275

Thursday, June 9, 2011, 9:00 a.m.
505 Van Ness Ave, San Francisco



Commissioners:
Michael R. Peevey
Timothy Alan Simon
Michel Peter Florio
Catherine J.K. Sandoval
Mark J. Ferron

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CPSD Utilities Safety and Reliability Branch



Raymond Fugere, Program and Project Supervisor

California Public Utilities Commission

June 9, 2011





Presentation Overview

- Definition of Reportable Incidents
- Basics of Incident Investigations
- Types of Underground Equipment
- Underground Explosion Investigation Procedures
- Utility and USRB Actions





Incident Reporting Requirements

Within 2 hours of a reportable incident during normal working hours or within 4 hours of a reportable incident outside of normal working hours, the utility shall provide notice to designated CPUC staff of the general nature of the incident, its cause and estimated damage





Basis of Investigations

- Compliance with Commission General Orders 128 and 165
- Compliance with the Public Utilities Code
- Failure to follow acceptable industry standards
- Failure to follow company's procedure/policy
- Failure to follow other agencies safety requirement





Type of Underground Structures

- Underground Vaults
- BURD (Buried Underground Residential Distribution)
- Padmounted Structures
- Handholes
- Manholes
- Walk-in Vaults
- Above Ground Enclosures





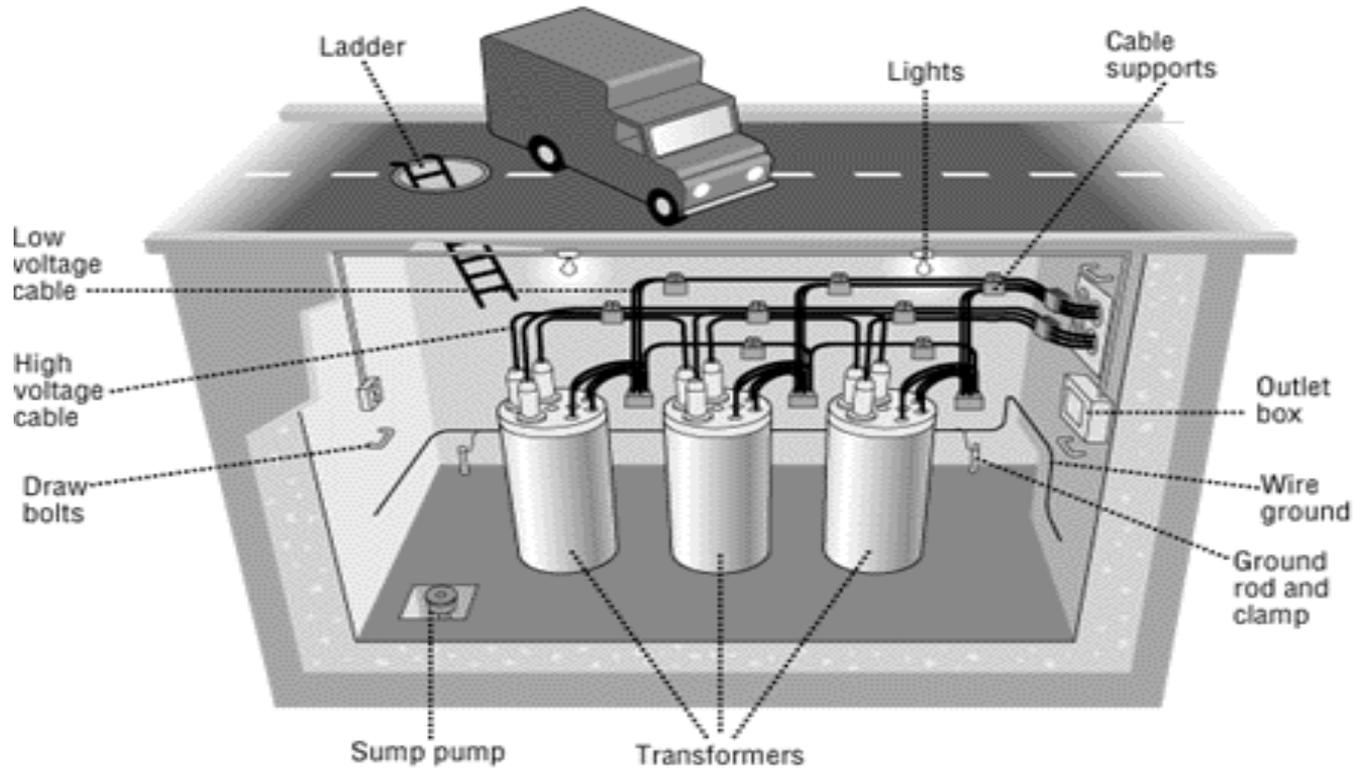
Underground Equipment

- Cover
- Ladder
- Transformers
- Switches (oil or gas)
- Conductors
- Ground Rods
- Racks
- Capacitors
- Breakers
- Fuses
- Blowers
- Sump Pumps
- Elbows
- Light Fixtures
- Other Hardware





Typical Underground Vault





Typical Handhole





BURD Structures





Typical Pamounted Structures





Investigation of Underground Electric Facilities Failures and Explosions





Underground Explosion Investigation Procedure

Field Work

- Immediate contact with the utility
- Meet with the utility representative at the site
- Interview Utility's personnel
- Interview witnesses who observed the incident
- Take pictures of the site and facilities (equipment, conductors,...)
- Examine evidence (transformers, conductors, switches,...)

Office Work

- Review and analyze construction and maintenance records
- Review and analyze inspection records
- Review the utility's response to the incident
- Generate data requests as necessary
- Arrange to interviews of utility's personnel as needed (including the utility's employees who actually did the last inspection)





Utilities Actions To Prevent Transformer Explosions

- Conduct inspections pursuant to General Order 165
 - Visual Inspections
 - Thermal Inspections
- Examine trends of outages
- Prioritize replacement of equipment





USRB Actions

