

**SAN DIEGO GAS and ELECTRIC**

**CORRECTIVE MAINTENANCE PROGRAM**

**REPORT FOR**

**2001**

## INTRODUCTION

The Corrective Maintenance Program (CMP) is managed through San Diego Gas and Electric's (SDG&E) Distribution Management and Strategies Department. By coordinating with the Construction & Operations (C&O) Centers, General Foremen, Inspectors and other personnel, the inspections required by the CMP are performed and follow-up work to correct deficiencies is completed. Corrective action, for items other than those rated as needing immediate attention, is handled on a 12 months cycle.

A listing of inspection schedules is included as Attachment "A" in accordance with General Order 165.

## **The individual segments for 2001 are as follows:**

### **Patrols**

A simple visual inspection of applicable utility equipment and structures, that is designed to identify obvious structural problems and hazards. The patrols were performed using a "drive by" concept.

### **Detailed overhead visual inspection**

A walking program of visual inspection of overhead facilities and primarily pole mounted equipment.

### **Detailed underground external inspection (Dead Front)**

An inspection cycle in which the cabinet exterior and supporting structure of each qualifying piece of equipment is inspected. This inspection includes such items as corrosion, identification and warning signage, wire entry and intrusion by dirt and surrounding vegetation. This inspection has been altered to include an internal inspection segment. The internal portion of this inspection was started on July 1, 1999. This inspection is now the same as the "Detailed underground internal inspection", however, the data is being maintained separately for future comparative purposes.

### **Detailed underground internal inspection (Live Front)**

An inspection cycle in which each qualifying piece of equipment is opened for an inspection of the cabinet interior and all components as well as an inspection of the cabinet exterior and supporting structures. An internal inspection incorporates an external inspection and is a superset of the external inspection activities.

### **Underground oil and gas switch inspection**

This is a specialized internal inspection of oil and gas filled switches found in subsurface underground structures (vaults, manholes, etc.). Oil samples and pressure readings are obtained and recorded, laboratory analysis of oil samples is performed.

### **Intrusive wood pole reinforcement inspection**

Wood pole inspections are performed by a contractor who performs routine inspections for integrity as well as wood preservative treatments and pole reinforcements.

## 2001 ANNUAL REPORT

### PATROLS

Following is the percentage of SDG&E's system in urban and rural areas that was patrolled during 2001:

- Urban Area
  - 100 Percent of system patrolled during year.
  - 100 Percent of system patrolled during annual cycle.
- Rural Area
  - 43 Percent of system patrolled during second year of 2-year cycle.
  - 100 Percent of system patrolled during 2-year cycle.

Following are the number of problems identified by overhead and underground patrols:

#### ***Overhead Patrol***

• Broken hardware	0
• Poles leaning badly / Damaged	0
• Broken Crossarms	1
• Foreign Objects	6
• Conductors	0
• Street lights broken	0
• Critical Repair	0
	=====
• Total	7

#### ***Underground Patrol***

• Off Pad	1
• Cabinet and / or cover or door damaged	1
• Street Lights broken	0
• Critical Repair	2
• Severe Corrosion	3
	=====
• Total	7

## DETAILED INSPECTIONS

### ***Overhead***

- Detailed inspections of all poles in the overhead system will be performed on a 5-year cycle. Approximately 20% of SDG&E's total pole population will be inspected annually. Small variations in inspected percentages may occur yearly, but 100% will be completed every 5 years. Pole mounted equipment and conductors supported by the poles are inspected at the same time. As with the poles the annual percentage may vary but 100% will be completed every 5 years. This is the 4th year of the cycle.
- The detailed overhead inspection requires that each pole position be visited and the pole and the equipment supported by the pole be carefully examined visually for conformance to CPUC General Order 95 requirements. By systematically inspecting all poles and the equipment they support, required equipment inspections will be completed within the time frames prescribed by General Order 165.
- Corrective action, for items other than those needing immediate attention, is handled on a 12 months cycle. Equipment and spans of conductor needing corrective action are managed by the structure that supports them.

## DETAILED OVERHEAD INSPECTIONS

- **Beach Cities District**

- Poles

- Number of poles in District 24,613.
- Number of poles inspected during reporting year 4802. Inspected poles as a % of poles in District 19.5%.
- Number of poles inspected during current inspection cycle 18,696. Inspected poles as a % of poles in district 76.0%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 2,572. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 53.6 %.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Overhead Transformer Stations

- Number of overhead transformer stations in District 5,826.
- Number of overhead transformer stations inspected during reporting year 1,353. Inspected overhead transformer stations as a % of overhead transformer stations in District 23.2%.
- Number of overhead transformer stations inspected during current inspection cycle 4,782. Inspected transformers as a % of transformers in district 82.1%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 2,282.
- Number of overhead switching / protective devices inspected during reporting year 431. Inspected switching / protective devices as a % of switching / protective devices in District 18.9%.
- Number of switching / protective devices inspected during current inspection cycle 1,784. Inspected switching / protective devices as a % of switching / protective devices in district 78.2%.

- Overhead Regulator / Capacitor Stations

- Number of overhead regulator / capacitor stations in District 174.
- Number of overhead regulator / capacitor stations inspected during reporting year 29. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 16.7%.
- Number of regulator / capacitor stations inspected during current inspection cycle 144. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 82.8%.

- **Beach Cities District (Cont.)**

- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 24,612.
- Number of spans of overhead conductors and cables inspected during reporting year 4,801. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 19.5%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 18,693. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 76.0%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

- **Eastern District**

- Number of poles in District 61,489.
- Number of poles inspected during reporting year 12,207. Inspected poles as a % of poles in District 19.9%.
- Number of poles inspected during current inspection cycle 48,298. Inspected poles as a % of poles in district 78.5%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 5,552. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 45.5%.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Overhead Transformer Stations

- Number of overhead transformer stations in District 17,857.
- Number of overhead transformer stations inspected during reporting year 3,809.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 21.3%.
- Number of overhead transformer stations inspected during current inspection cycle 14,633. Inspected transformers as a % of transformers in district 82.0%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 5,283.
- Number of overhead switching / protective devices inspected during reporting year 1,049. Inspected switching / protective devices as a % of switching / protective devices in District 19.9%.
- Number of switching / protective devices inspected during current inspection cycle 4,496. Inspected switching / protective devices as a % of switching / protective devices in district 85.1%.



- **Eastern District (Cont.)**

- Overhead Regulator / Capacitor Stations

- Number of overhead regulator / capacitor stations in District 305.
- Number of overhead regulator / capacitor stations inspected during reporting year 52. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 17.1%.
- Number of regulator / capacitor stations inspected during current inspection cycle 263. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 86.2%.

- Overhead Conductors and Cables

- Number of spans of overhead conductors and cables in District 61,488.
- Number of spans of overhead conductors and cables inspected during reporting year 12,206. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 19.9%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 48,295. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 78.5%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

- **Metro District**

- Poles

- Number of poles in District 47,692.
- Number of poles inspected during reporting year 9,101. Inspected poles as a % of poles in District 19.1%.
- Number of poles inspected during current inspection cycle 36,815. Inspected poles as a % of poles in district 77.2%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 3,119. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 34.3%.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Overhead Transformer Stations

- Number of overhead transformer stations in District 10,765.
- Number of overhead transformer stations inspected during reporting year 2,247.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 20.9%.
- Number of overhead transformer stations inspected during current inspection cycle 9,084. Inspected transformers as a % of transformers in district 84.4%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 3,677.
- Number of overhead switching / protective devices inspected during reporting year 567. Inspected switching / protective devices as a % of switching / protective devices in District 15.4%.
- Number of switching / protective devices inspected during current inspection cycle 3,021. Inspected switching / protective devices as a % of switching / protective devices in district 82.2%.

- Overhead Regulator / Capacitor Stations

- Number of overhead regulator / capacitor stations in District 253.
- Number of overhead regulator / capacitor stations inspected during reporting year 42. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 16.6%.
- Number of regulator / capacitor stations inspected during current inspection cycle 209. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 82.6%.

- **Metro District (Cont.)**

- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 47,691.
- Number of spans of overhead conductors and cables inspected during reporting year 9100. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 19.1%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 36,812. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 77.2%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

- **North Coast District**

- Poles

- Number of poles in District 25,062.
- Number of poles inspected during reporting year 4,474. Inspected poles as a % of poles in District 17.9%.
- Number of poles inspected during current inspection cycle 19,171. Inspected poles as a % of poles in district 76.5%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 2,013. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 45.0%.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 99.95%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - P26623 – Unable to estimate completion date. Customer refuses to clear yard to grant crews access.

- Overhead Transformer Stations

- Number of overhead transformer stations in District 7,030.
- Number of overhead transformer stations inspected during reporting year 1,348.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 19.2%.
- Number of overhead transformer stations inspected during current inspection cycle 5,793. Inspected transformers as a % of transformers in district 82.4%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 3,200.
- Number of overhead switching / protective devices inspected during reporting year 588. Inspected switching / protective devices as a % of switching / protective devices in District 18.4%.
- Number of switching / protective devices inspected during current inspection cycle 2,540. Inspected switching / protective devices as a % of switching / protective devices in district 79.4%.

- Overhead Regulator / Capacitor Stations

- Number of overhead regulator / capacitor stations in District 124.
- Number of overhead regulator / capacitor stations inspected during reporting year 26. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 21.0%.
- Number of regulator / capacitor stations inspected during current inspection cycle 91. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 73.4%.

- **North Coast District (Cont.)**
  - Overhead Conductors and Cables
  - Number of spans of overhead conductors and cables in District 25,061.
  - Number of spans of overhead conductors and cables inspected during reporting year 4,473. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 17.9%.
  - Number of spans of overhead conductors and cables inspected during current inspection cycle 19,168. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 76.5%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

- **Northeast District**

- Poles

- Number of poles in District 67,801.
- Number of poles inspected during reporting year 13,187. Inspected poles as a % of poles in District 19.5%.
- Number of poles inspected during current inspection cycle 53,128. Inspected poles as a % of poles in district 78.4%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 6,686. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 50.7%.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Overhead Transformer Stations

- Number of overhead transformer stations in District 21,186.
- Number of overhead transformer stations inspected during reporting year 4,853.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 22.9%.
- Number of overhead transformer stations inspected during current inspection cycle 17,076. Inspected transformers as a % of transformers in district 80.6%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 5,021.
- Number of overhead switching / protective devices inspected during reporting year 806. Inspected switching / protective devices as a % of switching / protective devices in District 16.1%.
- Number of switching / protective devices inspected during current inspection cycle 3726. Inspected switching / protective devices as a % of switching / protective devices in district 74.2%.

- **Northeast District (Cont.)**

- Overhead Regulator / Capacitor Stations

- Number of overhead regulator / capacitor stations in District 256.
- Number of overhead regulator / capacitor stations inspected during reporting year 32. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 12.5%.
- Number of regulator / capacitor stations inspected during current inspection cycle 192. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 75.0%.

- Overhead Conductors and Cables

- Number of spans of overhead conductors and cables in District 67,800.
- Number of spans of overhead conductors and cables inspected during reporting year 13,186. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 19.5%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 53,125. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 78.4%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

- **Orange County District**

- Poles

- Number of poles in District 6,276.
- Number of poles inspected during reporting year 1,161. Inspected poles as a % of poles in District 18.5%.
- Number of poles inspected during current inspection cycle 4,685. Inspected poles as a % of poles in district 74.6%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 696. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 60.0%.
- % Of needed corrective actions, including pole mounted equipment and spans of conductor, completed during 12 month cycle 99.57%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - P225161 – Unable to estimate completion date. Awaiting phone company equipment rearrangement to alleviate leaning pole.
    - P122253 – Completed 5/02. Private property access is resolved.
    - P29286 - Unable to estimate completion date until private property access is resolved.

- Overhead Transformer Stations

- Number of overhead transformer stations in District 1,358.
- Number of overhead transformer stations inspected during reporting year 326.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 24.0%.
- Number of overhead transformer stations inspected during current inspection cycle 1,138. Inspected poles as a % of transformers in district 83.8%.

- Overhead Switching / Protective Devices

- Number of overhead switching / protective devices in District 780.
- Number of overhead switching / protective devices inspected during reporting year 138. Inspected switching / protective devices as a % of switching / protective devices in District 17.7%.
- Number of switching / protective devices inspected during current inspection cycle 563. Inspected switching / protective devices as a % of switching / protective devices in district 72.2%.



## **Orange County District (Cont.)**

- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 62.
- Number of overhead regulator / capacitor stations inspected during reporting year 6. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 9.7%.
- Number of regulator / capacitor stations inspected during current inspection cycle 43. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 69.4%.
  
- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 6,275.
- Number of spans of overhead conductors and cables inspected during reporting year 1,160. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 18.5%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 4,682. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 74.6%.

## **UNDERGROUND (Pad mounted) INSPECTIONS**

The underground pad mounted inspection consists of two separate inspection types:

- Dead Front Equipment
- Live Front Equipment

### **Dead Front Equipment**

Detailed inspections of all dead front, pad-mounted equipment, in the underground system is performed on a 5-year cycle. Approximately 20% of SDG&E's total pad mounted dead front equipment is inspected annually. Small variations in inspected percentages may occur yearly, but 100% will be completed every 5 years. This is the 4th year of the cycle. This inspection has been altered to include an internal inspection segment.

A detailed inspection of dead front, pad mounted equipment requires that each dead front, pad mounted piece of equipment be visited and the piece of equipment be opened and carefully examined externally and internally, by visual methods, for conformance to CPUC General Order 128 requirements.

## PAD-MOUNTED DEAD FRONT EQUIPMENT

- **Beach Cities District**

- Transformers

- Number of pad mounted dead front transformers in District 10,635.
- Number of pad mounted dead front transformers inspected during reporting year 1,811. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 17.0%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 7,750. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 72.9%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 1,741. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 96.1%.
- % Of needed corrective actions completed during 12 month cycle 99.94%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - D2520970425 – Unable to estimated completion date until private property access is resolved.

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED DEAD FRONT EQUIPMENT (Cont.)

- **Eastern District**

- Transformers

- Number of pad mounted dead front transformers in District 9,390.
- Number of pad mounted dead front transformers inspected during reporting year 1,588. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 16.9%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 7,057. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 75.2%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 1,384. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 87.2%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED DEAD FRONT EQUIPMENT (Cont.)

- **Metro District**

- Transformers

- Number of pad mounted dead front transformers in District 9,936.
- Number of pad mounted dead front transformers inspected during reporting year 1,426. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 14.4%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 6,948. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 69.9%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 1,281. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 89.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED DEAD FRONT EQUIPMENT (Cont.)

- **North Coast District**

- Transformers

- Number of pad mounted dead front transformers in District 16,458.
- Number of pad mounted dead front transformers inspected during reporting year 2,379. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 14.5%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 11,282. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 68.6%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 2,102. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 88.4%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED DEAD FRONT EQUIPMENT (Cont.)

- **Northeast District**

- Transformers

- Number of pad mounted dead front transformers in District 18,186.
- Number of pad mounted dead front transformers inspected during reporting year 2,397. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 13.18%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 12,028. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 66.1%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 2,129. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 88.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED DEAD FRONT EQUIPMENT (Cont.)

- **Orange County District**

- Transformers

- Number of pad mounted dead front transformers in District 8,914.
- Number of pad mounted dead front transformers inspected during reporting year 1,568. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 17.6%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 6,058. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 68.0%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 1,499. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 95.6%.
- % Of needed corrective actions completed during 12 month cycle 99.53%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - D108412 – Unable to estimate completion date until private property access is resolved.
    - D110868 – Unable to estimate completion date until private property access is resolved.
    - D117515 – ETA 10/02 – Private property access.
    - D4923157580 – ETA 6/02 – Private property access.
    - D4940757401 – Unable to estimate completion date until private property access is resolved.
    - D5014155855 – Unable to estimate completion date until private property access is resolved.
    - D5966356917 – Unable to estimate completion date until private property access is resolved.

- Regulators / Capacitors

- Number of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during reporting year 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of pad mounted dead front regulators / capacitors inspected during current inspection cycle 0. Inspected pad mounted dead front regulators / capacitors as a % of pad mounted dead front regulators / capacitors in District 0.
- Number of dead front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Dead front, pad mounted regulators / capacitors needing maintenance as a % of dead front, pad mounted regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:



## Live Front Equipment

- Detailed inspections of all live front, pad mounted equipment, in the underground system will be performed on a 5-year cycle. Approximately 20% of SDG&E's total pad mounted live front equipment will be inspected annually. Small variations in inspected percentages may occur yearly, but 100% will be completed every 5 years. This is the 4th year of the cycle.
- A detailed inspection of live front, pad mounted, equipment requires that each live front, pad mounted, piece of equipment be visited and the equipment be opened and carefully examined externally and internally, by visual methods, for conformance to CPUC General Order 128 requirements.

## PAD-MOUNTED LIVE FRONT EQUIPMENT

- **Beach Cities District**

- Transformers

- Number of pad mounted live front transformers in District 1,628.
- Number of pad mounted live front transformers inspected during reporting year 420. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 25.8%.
- Number of pad mounted live front transformers inspected during current inspection cycle 1,388. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 85.3%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 395. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 94.0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 86.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 2. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 2.3%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 45. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 52.3%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 1. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 50.0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 1,757.
- Number of pad mounted live front switching devices inspected during reporting year 303. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 17.3%.
- Number of pad mounted live front switching devices inspected during current inspection cycle 1,742. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 99.1%.

- **Beach Cities District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 247. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 81.5%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED LIVE FRONT EQUIPMENT (Cont.)

- **Eastern District**

- Transformers

- Number of pad mounted live front transformers in District 1,699.
- Number of pad mounted live front transformers inspected during reporting year 480. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 28.3%.
- Number of pad mounted live front transformers inspected during current inspection cycle 1,680. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 98.9%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 421. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 87.7%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 22.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 7. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 31.8%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 15. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 68.2%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 3. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 42.9%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 678.
- Number of pad mounted live front switching devices inspected during reporting year 186. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 27.4%.
- Number of pad mounted live front switching devices inspected during current inspection cycle 732. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 108.0%.

- **Eastern District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 143. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 76.9%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED LIVE FRONT EQUIPMENT (Cont.)

- **Metro District**

- Transformers

- Number of pad mounted live front transformers in District 1,467.
- Number of pad mounted live front transformers inspected during reporting year 271. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 18.5%.
- Number of pad mounted live front transformers inspected during current inspection cycle 1,246. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 84.9%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 257. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 94.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 25.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 2. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 8.0%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 16. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 64.0%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 1. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 50.0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 1,000.
- Number of pad mounted live front switching devices inspected during reporting year 161. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 16.1%.

- **Metro District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle 1,160. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 116.0%.
- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 132. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 82.0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED LIVE FRONT EQUIPMENT (Cont.)

- **North Coast District**

- Transformers

- Number of pad mounted live front transformers in District 1,095.
- Number of pad mounted live front transformers inspected during reporting year 188. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 17.2%.
- Number of pad mounted live front transformers inspected during current inspection cycle 894. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 81.6%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 176. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 93.6%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 37.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 3. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 8.1%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 17. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 45.9%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 2. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 66.7%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 1,244.
- Number of pad mounted live front switching devices inspected during reporting year 246. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 19.8%.
- Number of pad mounted live front switching devices inspected during current inspection cycle 990. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 79.6%.



- **North Coast District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 235. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 95.5%
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED LIVE FRONT EQUIPMENT (Cont.)

- **Northeast District**

- Transformers

- Number of pad mounted live front transformers in District 1,539.
- Number of pad mounted live front transformers inspected during reporting year 519. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 33.7%.
- Number of pad mounted live front transformers inspected during current inspection cycle 1,500. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 97.5%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 479. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 92.3%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 60.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 1. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 1.7%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 48. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 80.0%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 1. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 100%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 1,298.
- Number of pad mounted live front switching devices inspected during reporting year 291. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 22.4%.
- Number of pad mounted live front switching devices inspected during current inspection cycle 1,368. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 105.4%.

- **Northeast District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 266. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 91.4%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## PAD-MOUNTED LIVE FRONT EQUIPMENT (Cont.)

- **Orange County District**

- Transformers

- Number of pad mounted live front transformers in District 684.
- Number of pad mounted live front transformers inspected during reporting year 101. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 14.8%.
- Number of pad mounted live front transformers inspected during current inspection cycle 533. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 78.0%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 97. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 96.0%.
- % Of needed corrective actions completed during 12 month cycle 97.94%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - D4766456547 – Unable to estimate completion date until Right-of-way access / legal issue is resolved.
    - D5015456712 – Unable to estimate completion date until private property access is resolved.

- Regulators / Capacitors

- Number of pad mounted live front regulators / capacitors in District 50.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 15. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 30.0%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 29. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 58.0%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 15. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 100.00%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Switching Devices

- Number of pad mounted live front switching devices in District 834.
- Number of pad mounted live front switching devices inspected during reporting year 190. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 22.8%.

- **Orange County District (cont.)**

- Number of pad mounted live front switching devices inspected during current inspection cycle 831. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 99.6%.
- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 170. Number of pad mounted switching devices coded as needing maintenance as a % of the number of pad mounted switching devices inspected during current inspection cycle 89.5%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## **UNDERGROUND (Subsurface) INSPECTIONS**

- Detailed inspections of all underground subsurface transformers and regulators/capacitors, in the subsurface underground system will be performed on a 3-year cycle. Approximately 33% of SDG&E's total population of these pieces of equipment will be inspected annually. Small variations in inspected percentages may occur yearly, but 100% will be completed every 3 years. This is the 1st year of the new 3-year cycle. A detailed inspection of underground subsurface equipment requires that each subsurface enclosure be visited and opened so that the equipment within can be carefully examined visually for conformance to CPUC General Order 128 requirements.

## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS

- **Beach Cities District**

- Transformers

- Number of subsurface transformers in District 295.
- Number of subsurface transformers inspected during reporting year 111. Inspected subsurface transformers as a % of subsurface transformers in District 37.6%.
- Number of subsurface transformers inspected during current inspection cycle 111. Inspected subsurface transformers as a % of subsurface transformers in District 37.6%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 47. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 42.3%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during reporting year 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 100%.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 1. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 100%.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS (Cont.)

- **Eastern District**

- Transformers

- Number of subsurface transformers in District 91.
- Number of subsurface transformers inspected during reporting year 35. Inspected subsurface transformers as a % of subsurface transformers in District 38.5%.
- Number of subsurface transformers inspected during current inspection cycle 35. Inspected subsurface transformers as a % of subsurface transformers in District 38.5%. Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 13. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 37.1%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during reporting year 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:



## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS (Cont.)

- **Metro District**

- Transformers

- Number of subsurface transformers in District 687.
- Number of subsurface transformers inspected during reporting year 351. Inspected subsurface transformers as a % of subsurface transformers in District 51.1%.
- Number of subsurface transformers inspected during current inspection cycle 351. Inspected subsurface transformers as a % of subsurface transformers in District 51.1%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 268. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 76.4%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 29.
- Number of subsurface regulators / capacitors inspected during reporting year 24. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 82.8%.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 24. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 82.8%.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 19. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 79.2%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS (Cont.)

- **North Coast District**

- Transformers

- Number of subsurface transformers in District 90.
- Number of subsurface transformers inspected during reporting year 51. Inspected subsurface transformers as a % of subsurface transformers in District 56.7%.
- Number of subsurface transformers inspected during current inspection cycle 51. Inspected subsurface transformers as a % of subsurface transformers in District 56.7%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 48. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 94.1%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 1.
- Number of subsurface regulators / capacitors inspected during reporting year 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS (Cont.)

- **Northeast District**

- Transformers

- Number of subsurface transformers in District 25.
- Number of subsurface transformers inspected during reporting year 6. Inspected subsurface transformers as a % of subsurface transformers in District 24.0%.
- Number of subsurface transformers inspected during current inspection cycle 6. Inspected subsurface transformers as a % of subsurface transformers in District 24.0%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 1. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 16.7%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during reporting year 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## UNDERGROUND SUBSURFACE EQUIPMENT INSPECTIONS (Cont.)

- **Orange County District**

- Transformers

- Number of subsurface transformers in District 223.
- Number of subsurface transformers inspected during reporting year 139. Inspected subsurface transformers as a % of subsurface transformers in District 62.3%.
- Number of subsurface transformers inspected during current inspection cycle 139. Inspected subsurface transformers as a % of subsurface transformers in District 62.3%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 72. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 51.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

- Regulators / Capacitors

- Number of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during reporting year 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle 0. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 0.
- Number of subsurface regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 0. Subsurface regulators / capacitors needing maintenance as a % of subsurface regulators / capacitors inspected during current inspection cycle 0%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## ***Underground Switch (Subsurface) INSPECTIONS***

- Detailed inspections of all subsurface switches in the underground system are performed on a 3-year cycle. Approximately 33% of SDG&E's total population of these pieces of equipment are inspected annually. Small variations in inspected percentages may occur yearly, but 100% will be completed every 3 years. This is the 1st year of the new 3-year cycle.
- A detailed inspection of underground switches requires that each equipment location, pad mount or subsurface enclosure be visited and opened so that the equipment within can be carefully examined visually for conformance to CPUC General Order 128 requirements. In addition, oil filled switches will have the oil sampled and processed by the lab for conformance with SDG&E standards.

## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS

- **Beach Cities District**
  - Number of underground subsurface switches in District 459.
  - Number of underground subsurface switches inspected during reporting year 228. Inspected subsurface underground switches as a % of equipment in sub-surface enclosures in District 49.7%.
  - Number of subsurface underground switches inspected during current inspection cycle 228. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 49.7%.
  - Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 78. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 34.2%.
  - % Of needed corrective actions completed during 12 month cycle 89.7%. \*
    - If this answer is not 100% explain and provide date corrective actions to be completed by:
      - M2418773245 - ETA 12/02 - Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
      - M2578170034 – Replaced 6/02.
      - M2613069420 - ETA 07/02 - Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
      - M2629069370 - ETA 07/02 - Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
      - M2677173252 - ETA 12/02 - Right of way access.
      - M2690373173 - ETA 12/02 - Right of way access.
      - M245177083 – ETA 12/02 – Right of way access.
      - M2550478062 – ETA 12/02 – Right of way access.

## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS (Cont.)

- **Eastern District**

- Number of subsurface underground switches in District 143.
- Number of subsurface underground switches inspected during reporting year 69. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 48.3%.
- Number of subsurface underground switches inspected during current inspection cycle 69. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 48.3%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 23. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 33.3%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:

## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS (Cont.)

- **Metro District**

- Number of subsurface underground switches in District 518.
- Number of subsurface underground switches inspected during reporting year 265. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 51.2%.
- Number of subsurface underground switches inspected during current inspection cycle 265. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 51.2%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 201. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 75.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:



## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS (Cont.)

- **North Coast District**

- Number of subsurface underground switches in District 271.
- Number of subsurface underground switches inspected during reporting year 94. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 34.7%.
- Number of subsurface underground switches inspected during current inspection cycle 94. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 34.7%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 59. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 62.8%.
- % Of needed corrective actions completed during 12 month cycle 98.3%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M3711066833 – Unable to estimate completion date until Right-of-way issue is resolved.

## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS (Cont.)

- **Northeast District**

- Number of subsurface underground switches in District 262.
- Number of subsurface underground switches inspected during reporting year 108. Inspected underground switches as a % of equipment in subsurface enclosures in District 41.2%.
- Number of subsurface underground switches inspected during current inspection cycle 108. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 41.2%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 63. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 58.3%.
- % Of needed corrective actions completed during 12 month cycle 98.4%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M3456473878 - ETA 7/02 – Private property access.

## UNDERGROUND SUBSURFACE SWITCH INSPECTIONS (Cont.)

- **Orange County District**
  - Number of subsurface underground switches in District 158.
  - Number of subsurface underground switches inspected during reporting year 78. Inspected underground switches as a % of equipment in subsurface enclosures in District 49.4%.
  - Number of subsurface underground switches inspected during current inspection cycle 78. Inspected underground switches as a % of equipment in subsurface enclosures in District 49.4%.
  - Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 30. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 38.5%.
  - % Of needed corrective actions completed during 12 month cycle 100%. \*
    - If this answer is not 100% explain and provide date corrective actions to be completed by:

## INTRUSIVE POLE INSPECTION

### **Wood Pole**

- Intrusive inspections of all poles in the overhead system are performed in conformance with CPUC General Order 165 requirements. Approximately 10% of SDG&E's poles over 15 years of age, that have not had a previous intrusive inspection, will be inspected annually, creating a 10 year inspection cycle. This is the 4th year of the cycle. SDG&E poles that are older than 15 years and have had a previous intrusive inspection will be inspected on a 20-year cycle with approximately 5% of these poles being inspected annually. This is the 4th year of the cycle.
- Small variations in inspected percentages may occur yearly, but 100% will be completed in conformance with CPUC General Order 165 requirements.
- The intrusive pole testing program at SDG&E is a centralized program that systematically addresses all SDG&E poles on a system wide basis and not on a district by district process. Program direction and records are handled on a centralized basis.
- Intrusive testing of wood poles is normally accomplished by excavating about the pole base and/or a sound and bore of the pole about the groundline area for conformance to CPUC General Order 95 requirements.

### **10 Year Inspection Cycle**

- Number of poles in Company 232,933.
- Number of poles inspected during reporting year 18,403. Inspected poles as a % of poles in Company 7.9%.
- Number of poles inspected during current inspection cycle 90,594. Inspected poles as a % of poles in Company 38.9%.
- Number of poles inspected during current inspection cycle coded as needing maintenance activity 1,620. Number of poles needing maintenance as a % of the number of poles inspected during current inspection cycle 8.8%.
- % Of needed corrective actions completed during 12 month cycle 100%. \*
- If this answer is not 100% explain and provide date corrective actions to be completed by:

**20-Year Inspection Cycle** - SDG&E is inspecting all wood poles on a 10-year cycle at this time.

- Number of poles in Company \_\_\_\_NA\_\_\_\_
- Number of poles inspected during reporting year \_\_\_\_NA\_\_\_\_. Inspected poles as a % of poles in Company \_\_\_\_NA\_\_\_\_.
- Number of poles inspected during current inspection cycle \_\_\_\_NA\_\_\_\_. Inspected poles as a % of poles in Company.

## INTRUSIVE POLE INSPECTION (Cont.)

- Number of poles inspected during current inspection cycle coded as needing maintenance activity \_\_\_\_NA\_\_\_\_. Number of poles needing maintenance as a % of the number of poles inspected during current inspection cycle \_\_NA\_\_ %.
- % Of needed corrective actions completed during 12 month cycle \_\_\_\_NA\_\_\_\_. \*
- If this answer is not 100% explain and provide date corrective actions to be completed by: