# SAN DIEGO GAS and ELECTRIC COMPANY

# **CORRECTIVE MAINTENANCE PROGRAM**

**REPORT FOR** 

2000

Prepared By: Frank Marsman (6/26/2001)

#### 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 underground switch inspections have been divided between above ground (pad mounted) and subsurface in accordance with GO 165 requirements.

#### The individual segments for 2000 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 pieces of equipment are opened for an inspection of the cabinet interior and all components as well as an inspection of the cabinet exterior and supporting structure. 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.

#### 2000 ANNUAL REPORT

## PATROLS

Following is the percentage of SDG&E's system in urban and rural areas that was patrolled during 2000:

- Urban Area
  - 100% of system patrolled during year 100 %.
  - 100% of system patrolled during annual cycle 100%.
- Rural Area
  - 57% of system patrolled during year 57%
  - 100% of system patrolled during 2-year cycle 100%.

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

#### **Overhead Patrol**

•	Broken hardware 0
•	Poles leaning badly /
	Damaged 3
•	Broken Crossarms6
•	Foreign Objects2
•	Conductors 0
•	Street lights broken0
•	Critical Repair 0
	=====
•	Total 11

#### **Underground Patrol**

Off Pad ...... 0
Cabinet and / or cover or door damaged ...... 0
Street Lights broken ..... 0
Critical Repair ..... 2
Severe Corrosion ..... 12
======
Total 14

## **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 3rd 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 24,749.
- Number of poles inspected during reporting year 4,502. Inspected poles as a % of poles in District 18.19%.
- Number of poles inspected during current inspection cycle 13,894. Inspected poles as a % of poles in district 56.1%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 3,723. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 26.8%.
- % 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 5,883.
- Number of overhead transformer stations inspected during reporting year 1,128. Inspected overhead transformer stations as a % of overhead transformer stations in District 19.17%.
- Number of overhead transformer stations inspected during current inspection cycle 3,429. Inspected transformers as a % of transformers in district 58.29%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 2,354.
- Number of overhead switching / protective devices inspected during reporting year 395. Inspected switching / protective devices as a % of switching / protective devices in District 16.78%.
- Number of switching / protective devices inspected during current inspection cycle 1,353. Inspected switching / protective devices as a % of switching / protective devices in district 57.48%.
- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 179.
- Number of overhead regulator / capacitor stations inspected during reporting year 29. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 16.2%.

• Number of regulator / capacitor stations inspected during current inspection cycle 115. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 64.25%.

## • Beach Cities District (Cont.)

- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 24,748.
- Number of spans of overhead conductors and cables inspected during reporting year 4,501. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 18.19%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 13,892. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 56.13%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

#### • Eastern District

- Number of poles in District 61,333.
- Number of poles inspected during reporting year 12,254. Inspected poles as a % of poles in District 19.98%.
- Number of poles inspected during current inspection cycle 36,091. Inspected poles as a % of poles in district 58.84%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 9,343. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 25.89%.
- % 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 17,927.
- Number of overhead transformer stations inspected during reporting year 3,575.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 19.94%.
- Number of overhead transformer stations inspected during current inspection cycle 10,824. Inspected transformers as a % of transformers in district 60.38%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 5,396.
- Number of overhead switching / protective devices inspected during reporting year 946. Inspected switching / protective devices as a % of switching / protective devices in District 17.53%.
- Number of switching / protective devices inspected during current inspection cycle 3,447. Inspected switching / protective devices as a % of switching / protective devices in district 63.88%.

## • Eastern District (Cont.)

- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 315.
- Number of overhead regulator / capacitor stations inspected during reporting year 47. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 14.92%.
- Number of regulator / capacitor stations inspected during current inspection cycle 211. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 66.98%.
- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 61,332.
- Number of spans of overhead conductors and cables inspected during reporting year 12,253. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 19.98%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 36,089. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 58.84%.

#### Metro District

- Poles
- Number of poles in District 47,658.
- Number of poles inspected during reporting year 9,671. Inspected poles as a % of poles in District 20.29%.
- Number of poles inspected during current inspection cycle 27,714. Inspected poles as a % of poles in district 58.15%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 9,285. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 33.5%.
- % 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 10,787.
- Number of overhead transformer stations inspected during reporting year 2,518.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 23.34%.
- Number of overhead transformer stations inspected during current inspection cycle 6,837. Inspected transformers as a % of transformers in district 63.38%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 3,709.
- Number of overhead switching / protective devices inspected during reporting year 870. Inspected switching / protective devices as a % of switching / protective devices in District 23.46%.
- Number of switching / protective devices inspected during current inspection cycle 2,454. Inspected switching / protective devices as a % of switching / protective devices in district 66.16%.
- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 255.
- Number of overhead regulator / capacitor stations inspected during reporting year 66. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 25.88%.

• Number of regulator / capacitor stations inspected during current inspection cycle 167. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 65.49%.

#### • Metro District (Cont.)

- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 47,657.
- Number of spans of overhead conductors and cables inspected during reporting year 9,670. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 20.29%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 27,712. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 58.15%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

#### • North Coast District

- Poles
- Number of poles in District 25,249.
- Number of poles inspected during reporting year 5,102. Inspected poles as a % of poles in District 20.20%.
- Number of poles inspected during current inspection cycle 14,697. Inspected poles as a % of poles in district 58.21%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 4,167. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 28.35%.
- % 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 7,112.
- Number of overhead transformer stations inspected during reporting year 1,596.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 22.44%.
- Number of overhead transformer stations inspected during current inspection cycle 4,445. Inspected transformers as a % of transformers in district 62.5%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 3,275.
- Number of overhead switching / protective devices inspected during reporting year 799. Inspected switching / protective devices as a % of switching / protective devices in District 24.4%.
- Number of switching / protective devices inspected during current inspection cycle 1,952. Inspected switching / protective devices as a % of switching / protective devices in district 59.60%.
- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 128.
- Number of overhead regulator / capacitor stations inspected during reporting year 26. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 20.31%.
- Number of regulator / capacitor stations inspected during current inspection cycle 65. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 50.78%.

- North Coast District (Cont.)
  - Overhead Conductors and Cables
  - Number of spans of overhead conductors and cables in District 25,288.
  - Number of spans of overhead conductors and cables inspected during reporting year 5,101. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 20.17%.
  - Number of spans of overhead conductors and cables inspected during current inspection cycle 14,695. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 58.11%.

#### • Northeast District

- Poles
- Number of poles in District 67,990.
- Number of poles inspected during reporting year 12,508. Inspected poles as a % of poles in District 18.4%.
- Number of poles inspected during current inspection cycle 39,941. Inspected poles as a % of poles in district 58.75%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 7,111. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 17.8%.
- % 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 21,273.
- Number of overhead transformer stations inspected during reporting year 4,193.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 19.71%.
- Number of overhead transformer stations inspected during current inspection cycle 12,223. Inspected transformers as a % of transformers in district 57.46%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 5,048.
- Number of overhead switching / protective devices inspected during reporting year 782. Inspected switching / protective devices as a % of switching / protective devices in District 15.49%.
- Number of switching / protective devices inspected during current inspection cycle 2,920. Inspected switching / protective devices as a % of switching / protective devices in district 57.84%.

#### • Northeast District (Cont.)

- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 262.
- Number of overhead regulator / capacitor stations inspected during reporting year 41. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 15.65%.
- Number of regulator / capacitor stations inspected during current inspection cycle 160. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 61.07%.
- Overhead Conductors and Cables
- Number of spans of overhead conductors and cables in District 67,769.
- Number of spans of overhead conductors and cables inspected during reporting year 12,507. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 18.46%.
- Number of spans of overhead conductors and cables inspected during current inspection cycle 39,939. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 58.93%.

## DETAILED OVERHEAD INSPECTIONS (Cont.)

#### Orange County District

- Poles
- Number of poles in District 6,344.
- Number of poles inspected during reporting year 1,197. Inspected poles as a % of poles in District 18.87%.
- Number of poles inspected during current inspection cycle 3,524. Inspected poles as a % of poles in district 55.55%.
- Number of poles, including pole mounted equipment and spans of conductor, inspected during current inspection cycle coded as needing maintenance activity 1,124. Poles, including pole mounted equipment and spans of conductor, needing maintenance as a % of poles inspected during current inspection cycle 31.9%.
- % 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 1,368.
- Number of overhead transformer stations inspected during reporting year 320.
- Inspected overhead transformer stations as a % of overhead transformer stations in District 23.39%.
- Number of overhead transformer stations inspected during current inspection cycle 812. Inspected poles as a % of transformers in district 59.36%.
- Overhead Switching / Protective Devices
- Number of overhead switching / protective devices in District 797.
- Number of overhead switching / protective devices inspected during reporting year 130. Inspected switching / protective devices as a % of switching / protective devices in District 16.31%.
- Number of switching / protective devices inspected during current inspection cycle 425. Inspected switching / protective devices as a % of switching / protective devices in district 53.32%.
- Overhead Regulator / Capacitor Stations
- Number of overhead regulator / capacitor stations in District 65.
- Number of overhead regulator / capacitor stations inspected during reporting year 14. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in District 21.54%.
- Number of regulator / capacitor stations inspected during current inspection cycle 37. Inspected regulator / capacitor stations as a % of regulator / capacitor stations in district 56.9%.

- Orange County District (Cont.)
  - Overhead Conductors and Cables
  - Number of spans of overhead conductors and cables in District 6,343.
  - Number of spans of overhead conductors and cables inspected during reporting year 1,196. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in District 18.86%.
  - Number of spans of overhead conductors and cables inspected during current inspection cycle 3,522. Inspected spans of overhead conductors and cables as a % of spans of overhead conductors and cables in district 55.52%.

#### 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 3rd 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 9,645.
- Number of pad mounted dead front transformers inspected during reporting year 1,584. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 16.42%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 5,939. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 61.58%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 2,603. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 43.82%.
- % Of needed corrective actions completed during 12 month cycle 99.92%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M2625269300 To be corrected as part of a major circuit rebuild and circuit voltage change project (4kV to 12 kV). ETA 06/02.
    - D2520970425 Right-of-way issue. Corrective actions to be determined.
- <u>Regulators / Capacitors</u>
- 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 10,043.
- Number of pad mounted dead front transformers inspected during reporting year 1,422. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 14.16%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 5,469. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 54.56%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 2,707. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 49.50%.
- % Of needed corrective actions completed during 12 month cycle 99.96%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - D2352777984 Waiting for FAA approval. Corrective action to be determined.
- 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 8,791.
- Number of pad mounted dead front transformers inspected during reporting year 1,664. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 18.93%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 5,522. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 62.81%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 3,646. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 66.03%.
- % 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:

#### • North Coast District

- Transformers
- Number of pad mounted dead front transformers in District 14,421.
- Number of pad mounted dead front transformers inspected during reporting year 2,777. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 19.26%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 8,903. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 61.74%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 6,267. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 70.40%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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:

#### • Northeast District

- Transformers
- Number of pad mounted dead front transformers in District 16,151.
- Number of pad mounted dead front transformers inspected during reporting year 3,192. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 19.76%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 9,631. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 59.63%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 9,593. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 99.61%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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:

## • Orange County District

- Transformers
- Number of pad mounted dead front transformers in District 7,666.
- Number of pad mounted dead front transformers inspected during reporting year 1,329. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 17.34%.
- Number of pad mounted dead front transformers inspected during current inspection cycle 4,490. Inspected pad mounted dead front transformers as a % of pad mounted dead front transformers in District 58.57%.
- Number of dead front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 2,851. Dead front, pad mounted transformers needing maintenance as a % of dead front, pad mounted transformers inspected during current inspection cycle 63.50%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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 3rd 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 2,159.
- Number of pad mounted live front transformers inspected during reporting year 344. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 15.93%.
- Number of pad mounted live front transformers inspected during current inspection cycle 968. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 44.84%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 589. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 60.85%.
- % 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:
- <u>Regulators / Capacitors</u>
- Number of pad mounted live front regulators / capacitors in District 80.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 13. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 16.25%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 43. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 53.75%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 7. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 16.28%.
- % 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:
- <u>Switching Devices</u>
- Number of pad mounted live front switching devices in District 1956.
- Number of pad mounted live front switching devices inspected during reporting year 234. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 11.96%.

• Number of pad mounted live front switching devices inspected during current inspection cycle 1,439. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 73.57%.

## • Beach Cities District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 231. 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 16.05%.
- % 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:

## • Eastern District

- Transformers
- Number of pad mounted live front transformers in District 2,175.
- Number of pad mounted live front transformers inspected during reporting year 323. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 14.85%.
- Number of pad mounted live front transformers inspected during current inspection cycle 1200. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 55.17%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 553. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 46.08%.
- % 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:
- <u>Regulators / Capacitors</u>
- Number of pad mounted live front regulators / capacitors in District 20.
- 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 15.00%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 8. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 40.00%.
- 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 25.00%.
- % 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:
- <u>Switching Devices</u>
- Number of pad mounted live front switching devices in District 739.
- Number of pad mounted live front switching devices inspected during reporting year 168. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 22.73%.

• Number of pad mounted live front switching devices inspected during current inspection cycle 546. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 73.88%.

## • Eastern District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 177. 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 32.42%.
- % 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:

## Metro District

- Transformers
- Number of pad mounted live front transformers in District 2,236.
- Number of pad mounted live front transformers inspected during reporting year 250. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 11.18%.
- Number of pad mounted live front transformers inspected during current inspection cycle 975. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 43.60%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 508. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 52.10%.
- % 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:
- <u>Regulators / Capacitors</u>
- Number of pad mounted live front regulators / capacitors in District 24.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 4. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 16.67%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 14. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 58.33%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 5. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 35.7100%.
- % 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 1,109.

• Number of pad mounted live front switching devices inspected during reporting year 184. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 16.59%.

## • Metro District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle 999. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 90.08%.
- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 130. 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 13.01%.
- % 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:

### • North Coast District

- Transformers
- Number of pad mounted live front transformers in District 3,225.
- Number of pad mounted live front transformers inspected during reporting year 137. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 4.25%.
- Number of pad mounted live front transformers inspected during current inspection cycle 706. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 21.89%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 189. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 26.77%.
- % 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:
- <u>Regulators / Capacitors</u>
- Number of pad mounted live front regulators / capacitors in District 35.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 10. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 28.57%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 14. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 40%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 9. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 64.29%.
- % 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:
- <u>Switching Devices</u>
- Number of pad mounted live front switching devices in District 1,102.
- Number of pad mounted live front switching devices inspected during reporting year 256. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 23.23%.
• Number of pad mounted live front switching devices inspected during current inspection cycle 744. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 67.51%.

# • North Coast District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 347. 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 46.64%.
- % 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:

## Northeast District

- Transformers
- Number of pad mounted live front transformers in District 4,779.
- Number of pad mounted live front transformers inspected during reporting year 402. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 8.41%.
- Number of pad mounted live front transformers inspected during current inspection cycle 981. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 20.53%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 682. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 69.52%.
- % 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:
- <u>Regulators / Capacitors</u>
- Number of pad mounted live front regulators / capacitors in District 54.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 6. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 11.11%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 47. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 87.04%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 28. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 59.57%.
- % 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:
- <u>Switching Devices</u>
- Number of pad mounted live front switching devices in District 1,424.
- Number of pad mounted live front switching devices inspected during reporting year 263. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 18.47%.

• Number of pad mounted live front switching devices inspected during current inspection cycle 1,077. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 75.63%.

# • Northeast District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 451. 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 41.88%.
- % 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 1,851.
- Number of pad mounted live front transformers inspected during reporting year 120. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 6.48%.
- Number of pad mounted live front transformers inspected during current inspection cycle 432. Inspected pad mounted live front transformers as a % of pad mounted live front transformers in District 23.34%.
- Number of live front, pad mounted transformers inspected during current inspection cycle coded as needing maintenance activity 244. Live front, pad-mounted transformers needing maintenance as a % of live front, pad mounted transformers inspected during current inspection cycle 56.48%.
- % 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:
    - D4766456547 Right-of-way access problem Legal Issue corrective date To Be Determined.
- Regulators / Capacitors
- Number of pad mounted live front regulators / capacitors in District 46.
- Number of pad mounted live front regulators / capacitors inspected during reporting year 5. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 10.87%.
- Number of pad mounted live front regulators / capacitors inspected during current inspection cycle 14. Inspected pad mounted live front regulators / capacitors as a % of pad mounted live front regulators / capacitors in District 30.43%.
- Number of live front, pad mounted regulators / capacitors inspected during current inspection cycle coded as needing maintenance activity 7. Live front, pad mounted regulators / capacitors needing maintenance as a % of live front, pad mounted regulators / capacitors inspected during current inspection cycle 50.00%.
- % 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:
- <u>Switching Devices</u>
- Number of pad mounted live front switching devices in District 914.

• Number of pad mounted live front switching devices inspected during reporting year 148. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 16.19%.

# • Orange County District (cont.)

- Number of pad mounted live front switching devices inspected during current inspection cycle 641. Inspected pad mounted live front switching devices as a % of pad mounted live front switching devices in District 70.13%.
- Number of pad mounted live front switching devices inspected during current inspection cycle coded as needing maintenance activity 204. 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 31.83%.
- % Of needed corrective actions completed during 12 month cycle 99.51%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M5095156929 ETA 8/01/01 Right of way access for pad mounting switch.

#### **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 3rd year of the 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.

#### • Beach Cities District

- Transformers
- Number of subsurface transformers in District 252.
- Number of subsurface transformers inspected during reporting year 91. Inspected subsurface transformers as a % of subsurface transformers in District 36.11%.
- Number of subsurface transformers inspected during current inspection cycle 252. Inspected subsurface transformers as a % of subsurface transformers in District 100%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 59. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 23.41%.
- % 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
  1. 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:

## • Eastern District

- Transformers
- Number of subsurface transformers in District 68.
- Number of subsurface transformers inspected during reporting year 12. Inspected subsurface transformers as a % of subsurface transformers in District 17.65%.
- Number of subsurface transformers inspected during current inspection cycle 68. Inspected subsurface transformers as a % of subsurface transformers in District 100%. Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 17. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 25.76%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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:

- Metro District
  - Transformers
  - Number of subsurface transformers in District 530.
  - Number of subsurface transformers inspected during reporting year 82. Inspected subsurface transformers as a % of subsurface transformers in District 15.47%.
  - Number of subsurface transformers inspected during current inspection cycle 530. Inspected subsurface transformers as a % of subsurface transformers in District 100%.
  - Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 22. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 4.26%.
  - % 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:
  - <u>Regulators / Capacitors</u>
  - Number of subsurface regulators / capacitors in District 29.
  - Number of subsurface regulators / capacitors inspected during reporting year
    Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 10.34%.
  - Number of subsurface regulators / capacitors inspected during current inspection cycle 23. Inspected subsurface regulators / capacitors as a % of subsurface regulators / capacitors in District 79.31%.
  - 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:

## • North Coast District

- Transformers
- Number of subsurface transformers in District 79.
- Number of subsurface transformers inspected during reporting year 18. Inspected subsurface transformers as a % of subsurface transformers in District 22.79%.
- Number of subsurface transformers inspected during current inspection cycle 79. Inspected subsurface transformers as a % of subsurface transformers in District 100%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 43. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 54.43%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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:

#### • Northeast District

- Transformers
- Number of subsurface transformers in District 15.
- Number of subsurface transformers inspected during reporting year 5. Inspected subsurface transformers as a % of subsurface transformers in District 33.33%.
- Number of subsurface transformers inspected during current inspection cycle 15. Inspected subsurface transformers as a % of subsurface transformers in District 100%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 9. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 60%.
- % 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:

## Orange County District

- Transformers
- Number of subsurface transformers in District 216.
- Number of subsurface transformers inspected during reporting year 56. Inspected subsurface transformers as a % of subsurface transformers in District 25.93%.
- Number of subsurface transformers inspected during current inspection cycle 216. Inspected subsurface transformers as a % of subsurface transformers in District 100%.
- Number of subsurface transformers inspected during current inspection cycle coded as needing maintenance activity 10. Subsurface transformers needing maintenance as a % of subsurface transformers inspected during current inspection cycle 4.63%.
- % 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:
- <u>Regulators / Capacitors</u>
- 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 3rd year of the 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.

#### • Beach Cities District

- Number of underground subsurface switches in District 271.
- Number of underground subsurface switches inspected during reporting year 80. Inspected subsurface underground switches as a % of equipment in sub-surface enclosures in District 29.52%.
- Number of subsurface underground switches inspected during current inspection cycle 271. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 185. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 68.27%.
- % Of needed corrective actions completed during 12 month cycle 96.76%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M2418773245 ETA 06/02 Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
    - M2578170034 ETA 06/02 Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
    - M2613069420 ETA 06/02 Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
    - M2629069370 ETA 06/02 Integrated into larger job/project to be corrected by entire circuit rebuild including a circuit conversion from 4kV to 12 kV.
    - M2677173252 ETA 12/31/01 Right of way access.
    - M2690373173 ETA 12.31/01 Right of way access.

#### • Eastern District

- Number of subsurface underground switches in District 67.
- Number of subsurface underground switches inspected during reporting year 65. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 97.01%.
- Number of subsurface underground switches inspected during current inspection cycle 67. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 43. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 64.18%.
- % 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:

## Metro District

- Number of subsurface underground switches in District 379.
- Number of subsurface underground switches inspected during reporting year 51. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 13.46%.
- Number of subsurface underground switches inspected during current inspection cycle 379. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 183. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 48.28%.
- % 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:

#### • North Coast District

- Number of subsurface underground switches in District 115.
- Number of subsurface underground switches inspected during reporting year 39. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 33.91%.
- Number of subsurface underground switches inspected during current inspection cycle 115. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 68. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 59.13%.
- % 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:

#### • Northeast District

- Number of subsurface underground switches in District 78.
- Number of subsurface underground switches inspected during reporting year 26. Inspected underground switches as a % of equipment in subsurface enclosures in District 33.33%.
- Number of subsurface underground switches inspected during current inspection cycle 78. Inspected subsurface underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 47. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 60.26%.
- % 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:

#### Orange County District

- Number of subsurface underground switches in District 47.
- Number of subsurface underground switches inspected during reporting year 16. Inspected underground switches as a % of equipment in subsurface enclosures in District 34.04%.
- Number of subsurface underground switches inspected during current inspection cycle 47. Inspected underground switches as a % of equipment in subsurface enclosures in District 100%.
- Number of subsurface underground switches inspected during current inspection cycle coded as needing maintenance activity 34. Number of subsurface underground switches needing maintenance as a % of the number of subsurface underground switches inspected during current inspection cycle 72.34%.
- % Of needed corrective actions completed during 12 month cycle 97.06%. \*
  - If this answer is not 100% explain and provide date corrective actions to be completed by:
    - M4796555885 ETA 12/31/2000 Subsurface group switch, zero gas pressure, job created 4/12/2000 to raise and padmount.

## 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 3rd 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 3rd 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 220,710.
- Number of poles inspected during reporting year 24,105. Inspected poles as a % of poles in Company 10.92%.
- Number of poles inspected during current inspection cycle 72,191. Inspected poles as a % of poles in Company 32.71%.
- Number of poles inspected during current inspection cycle coded as needing maintenance activity 60,108. Number of poles needing maintenance as a % of the number of poles inspected during current inspection cycle 83.26%.
- % Of needed corrective actions completed during 12 month cycle100%. \*
- 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:

# **ATTACHMENT**

<u>"A"</u>