



June 28, 2019

Mr. Fadi Daye
Public Utilities Commission
Safety and Enforcement Division
Electric Safety and Reliability Branch
320 West Fourth Street, Suite 500
Los Angeles, CA 90013

**Southern California Edison's
2018 General Order 174 Inspection Program Summary**

Dear, Mr. Daye:

Attached is a copy of Southern California Edison's Substation Inspection Program. Also enclosed is the General Order 174 Report summarizing completed and past due inspections for 2018.

If you have any questions please give me a call.

Sincerely,



Joel D. Karzen
Senior Manager, Compliance Integration
1 Innovation Way
Pomona, CA 91768

Attachments

2018 General Order 174 Report

Inspection Type	Completed*	Past Due*	Notes
GO 174 Substation Inspection	5,119	0	

**Completed - Actual number of GO 174 inspections performed for the reporting period. Does not include outstanding inspections from prior reporting periods.*


**Past Due - The number of GO 174 inspections not performed for the reporting period. Does not include outstanding inspections from prior reporting periods.*



Transmission & Distribution Business Unit	GO 174	Version #	7
Substation Inspection Practices		Effective Date	6/27/2019

Southern California Edison Company

GO 174 Substation Inspection Practices

T&D Business Line	Signature	Annual Review Date
Compliance Integration Principal Manager	Randy R. Smith 	6/27/2019

July 2019

Transmission & Distribution Business Unit	GO 174	Version #	7
Substation Inspection Practices		Effective Date	6/27/2019

Table of Contents

1.0 INTRODUCTION	1
2.0 PURPOSE	1
3.0 APPLICABILITY	1
4.0 DEFINITION OF TERMS	1
4.1. Annual	1
4.2. Discrepancy	1
4.3. Good Utility Practice	1
4.4. Inspection	2
4.5. Station Log	2
4.6. Substation/Station	2
4.7. Customer Substation:	2
4.8. Operator	2
4.9. Work Management System (WMS)	2
5.0 RESPONSIBILITIES	2
5.1. Transmission and Distribution (T&D)	2
5.1.1. Grid Operations	2
5.2. Generation	2
6.0 PRACTICES	3
6.1. Inspection	3
6.1.1. Scheduled	3
6.1.2. Unscheduled	3
6.1.3. Facilities	3
6.1.4. Record Keeping	3
6.1.5. External Reporting	4
6.1.6. External Audits	4
7.0 REVISIONS	5
Attachment A	6

1.0 INTRODUCTION

This document describes the Practices employed by the Southern California Edison Company (SCE) for the inspection of substations.

2.0 PURPOSE

The intent of these Practices is to help ensure the safe delivery of reliable power in a cost-effective manner and compliance with applicable regulatory requirements.

These Practices are based in part upon internal system knowledge, experience, and expertise, as well as accepted Good Utility Practice, and takes into consideration competing influences, such as operating protocols and emergency conditions.

3.0 APPLICABILITY

Facilities subject to the California Independent System Operator's operational control and/or subject to FERC reliability standards and Customer Substations are exempt from this General Order.

4.0 DEFINITION OF TERMS

4.1. Annual

A calendar year.

4.2. Discrepancy

A condition that does not conform to regulatory requirements, SCE's inspection standards or operational requirements.

4.3. Good Utility Practice

Any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts, which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practices is not intended to be any one of a number of optimum practices, methods, or acts to the exclusion of all others, but rather acceptable practices, methods, or acts generally in practice in the region.

4.4. Inspection

A basic visual evaluation of substation facilities for the purpose of identifying discrepancies.

4.5. Station Log

A business record of events occurring within a Station.

4.6. Substation/Station

The secured site or location containing facilities uniquely located and under the control of qualified SCE employees, through which energy is passed for the purpose of switching and/or transformation.

4.7. Customer Substation:

A substation that functions as the main source of electric power supply for a single customer, including those that provide feed through for additional customers.

Customer substations are not subject to the reporting requirements in section 6.1.5.

4.8. Operator

The person qualified by reason of training, experience, and instruction, responsible for inspecting substations.

4.9. Work Management System (WMS)

The interactive database(s) used to collect inspection data.

5.0 RESPONSIBILITIES

5.1. Transmission and Distribution (T&D)

5.1.1. Grid Operations

Responsible for the 24-hour operation of the electric system and substation inspection.

5.2. Generation

Responsible for the inspection of substation facilities in and around generating stations as well as certain substations in remote locations through agreement with Transmission & Distribution (T&D).

6.0 PRACTICES

6.1. Inspection

6.1.1. Scheduled

Each substation should be inspected by an operator based on the intervals listed in Attachment A for that particular substation. The inspection intervals are based in part upon internal system knowledge, experience and expertise, as well as accepted Good Utility Practice. EXCEPTION: Less inspections than specified in Attachment A may be conducted if limited due to reasonable circumstances such as extreme weather (e.g. snow), no access, or system emergencies (e.g. fires, storms, etc.) prevent such inspections from being conducted.

When the operator enters an unattended station an entry should be made in the station logbook. Note: Manned substations do not contain logbooks. Identified discrepancies that require immediate action are communicated to the appropriate supervisor. The remaining discrepancies found during inspections are noted on the electronic inspection forms. Responsible supervisors review identified discrepancies and assign a priority rating.

6.1.2. Unscheduled

Unscheduled inspections may also be performed during routine operational activities such as switching, or in response to storms, fires or other events. The performance of an unscheduled inspection is not typically documented except for entries made in the substation log book and any discrepancies discovered and entered in the WMS.

6.1.3. Facilities

Facilities include: Batteries; Buses; Capacitor Banks; Circuit Breakers; Fire Detection/Suppression (where applicable); Grounding; Insulators/Bushings/Arresters; Perimeter Fencing and Gates; Reactors; Structures; Transformers; Voltage Regulators.

6.1.4. Record Keeping

Records include the following information: Inspector name or identifier; inspection date; and a brief description of identified discrepancies. Inspection records are retained for not less than five (5) years.

6.1.5. External Reporting

Upon request, records and documents are transmitted to Maintenance, Performance and Reliability (MPR) to facilitate required reporting.

No later than July 1st of each year, MPR transmits to the Safety and Enforcement Division (SED) a report summarizing completed and past due Inspections for the prior calendar year.

Changes to these Practices are noted in the Inspection Program Summary, including the effective date of the change. The report includes any changes made to the Program since the previous report.

6.1.6. External Audits

T&D Compliance Integration coordinates and leads external compliance audits and serves as a regulatory interface with SED staff.

7.0 REVISIONS

Section	Subsection	Description	Date
5.0	5.1	Revision of inspection requirements language and provisions.	6/11/2014
5.0	5.1	Revision of inspection requirements language and provisions.	7/1/2015
5.0	5.1.5 5.1.6	Changed RPPM to MPR, to reflect current name of group	7/1/2015
5.0	5.1.1	Revisions to logbook entries for manned substations	7/1/2016
Attachment A		Updated Substation List, to include new substations	6/27/2017
3.0		Added section 3.0 Applicability.	6/27/18
4.0	4.6.1	Corrected section reference	6/27/18
Attachment A		Updated Substation List, to include new substations and remove out of service stations	6/27/18
Attachment A		Updated Substation List, to include new substations.	6/27/2019
5.1		Moved Grid Operations under section 5.1 and created a sub-section 5.1.1 since this business unit is under the T&D organization.	6/27/2019
5.2		Changed Generation Business Unit and Power Production Division (PPD) to Generation to reflect current name of group.	6/27/2019
6		Mino edits for added clarity.	6/27/2019

Attachment A

Bi-Monthly Substation Inspections

The following substation should be inspected bi-monthly (every other month), but at a minimum five (5) times annually:

Acton	Baker	Boxwood	Capsule	Colonia
Aerojet	Bandini	Bradbury	Captive	Colorado
AFG	Banducci	Brea	Capwind	Colossus
Air Products	Banning	Breeze	Carbogen	Colton
Alder	Banwind	Brew	Carbonic	Colton Cement
Alessandro	Barstow	Brewster	Cardiff	Columbine
Alhambra	Bartolo	Bridge	Carmenita	Compress
Allen	Bassett	Bridgeport	Carnival	Compton
Alon	Basta	Brighton	Carodean	Concho
Altwind	Bayside	Broadway	Carolina	Converse Flats
Amador	Beaumont	Brookhurst	Carpinteria	Corners
Amalia	Bedford	Browning	Carson	Cornuta
Amargo	Belding	Bryan	Casa Diablo	Corona
Amboy	Belmont	Bryman	Casitas	Correction
Amco	Belvedere	Buckwind	Cathedral City	Cortez
Ameron	Beverly	Bullis	Cedarwood	Corum
Anaverde	Bicknell	Bunker	Certified	Cosmic
Anita	Big Creek 1 PH	Burnt Mill	Channel Islands	Coso
APL	Big Creek 2 PH	Burpit	Charmin	Costa Mesa
Apollo	Bishop Creek Plant 2	Cabazon	Chase	Cottonwood
Appgen	Bishop Creek Plant 3	Cabrillo	Chatham	Coygen
Apple Valley	Bishop Creek Plant 4	Cady	Chatsworth	Crater
Aqueduct	Bishop Creek Plant 5	Cajalco	Cherry	Crest
Arbors	Bishop Creek Plant 6	Cal Cement	Chestnut	Crestmore
Arbwind	Bixby	Calcify	Chevcentral	Crown
Arcadia	Black Mountain	Calden	Chevgen	Cryco
Archibald	Blast	Calectric	Chevmain 66kv	Cucamonga
Archline	Bliss	Camarillo	Chip	Cudahy
Arco	Bloomington	Camden	Chiquita	Culver
Arro	Bluff Cove	Cameron	Cimgen	Cummings
Arrowhead	Blythe City	Camgen	Citrus	Cyber
Arroyo	Bolsa	Camino	Claremont	Cypress
Astro	Boost	Camp 10	Clark	Daggett
Athens	Borel	Cantil	Cleargen	Dairymans
Atwood	Borrego	Canwind	Clementine	Daisy
Auld	Bottle	Canyon	Coffee	Dalton
Azusa	Bovine	Canyon Lake	Colegio	Databank
Bain	Bowl	Capitan	College	Davidson City

Declez	Fairfax	Glennville	Hughtron	La Veta
Deep Springs	Fairview	Glow	Huntington Park	Lafayette
Defrain	Farrell	Goldhill	Huston	Lakeview
Del Mar	Federalgen	Goldstone	Icegen	Lakewood
Del Rosa	Felton	Goldtown	Idyllwild	Lambert
Del Sur	Fernwood	Gonzales	Imperial	Lampson
Delano	Fibre	Gorman	Indian Wells	Lancaster
Delgen	Fillmore	Goshen	Indigo	Landing
Desal	Finance	Graham	Industry	Lanpri
Desert Outpost	Firehouse	Granada	Inglewood	Larder
Diamond Bar	Fish Lake Valley	Grand Crossing	Injection	Lark Ellen
Diemer	Flanco	Grapeland	Inland Container	Las Lomas
Dike	Floraday	Great Lakes	Inyokern Town	Latigo
Ditmar	Flowind	Greenhorn	Iron Mountain	Laurel
Dock	Fogarty	Greening	Irvine	Lawndale
Doheny	Fontana PH	Growers	Isabella	Layfair
Domhill	Forest Home	Haagen	Isla Vista	Leatherneck
Douglas	Forge	Hamilton	Ivar	Lee Vining
Dougoil	Fort Irwin	Hanford	Ivyglen	Lehman
Downey	Francis	Hanjin	Jefferson	Lemon Cove
Downey Med	Frazier Park	Harvard	Jersey	Lennox
Downs	Fremont	Haskell	Jose	Levy
Duarte	Fruitland	Hathaway	Joshua Tree	Liberty
Dunes	Fuel	Havasu	Junction	Limestone
Dunn Siding	Fullerton	Haveda	June Lake	Linde
Dutchwind	Gage	Havilah	Karma	Linden
Earlimart	Galaxy	Hedda	Kaweah No. 1	Lindsay
East Barstow	Gale	Helendale	Kaweah No. 2	Line Creek
Eaton	Gallatin	Helijet	Kaweah No. 3	Liquid
Edinger	Ganesha	Hemet	Kawgen	Little Rock
Edwards	Garfield	Hesperia	Kem	Live Oak
Eisenhower	Garnet	Hi Desert	Kempster	Lockheed
El Sobrante	Garvey	Highgrove	Kern River 1	Locust
Elcans	Gatx	Highland	Kern River 3	Longdon
Elizabeth Lake	Gavilan	Hillgen	Kernville	Loraine
Ellwood	Gaviota	Hinkley	Kerrgen	Los Cerritos
Elsinore	Genamic	Holgate	Kimball	Losulfur
ELY	Gene	Holiday	Kinder	Lourich
Enwind	George A.F.B.	Hollywood Park	Kirkwall	Lucas
Eric	Getty	Homart	Kiwi	Lucerne
Estero	Gilbert	Hopeful	La Canada	Lunada
Estrella	Gisler	Howard	La Habra	Lundy
Euclid	Glen Avon	Hoyt	La Mirada	Lynwood
Fair Oaks	Glen Ivy	Hughesair	La Palma	Lytle Creek PH

Macarthur	Moval	Onshore	Piute	Renwind
Macneil	Movie	Ontario	Pixley	Repetto
Madrid	Mt. Tom	Ontario PH 1	Placentia	Revital
Magmagen	Mt. Vernon	Ontario PH 2	Plaster	Rialto
Malibu	Murphy	Orange	Plastic	Ridgecrest
Manhattan	Murrietta 2	Orcogen	Playa	Ringmill
Maraschino	Muscoy	Orcosan	Pluess	Ripley
Marine	Naomi	Ordway	Polaris	Riteaid
Marion	Naples	Oro Grande	Polypro	Ritter Ranch
Mariposa	Narod	Ortega	Pomona	Rivera
Marymount	Narrows	Outfall	Poole PH	Rivertex
Mascot	Natural	Oxgen	Poplar	Riverway
Maxwell	Navy Mole	Oxnard	Portal	Rockair
Mayberry	Nelson	Pacline	Porterville	Rocket Test
Mayflower	Neptune	Palm Canyon	Potrero	Rolling Hills
Mcgen	Newbury	Palm Springs	Procal	Rosamond
Mcgrath	Newcomb	Palm Village	Process	Rosecrans
Mentone	Newhall	Palmdale	Procgen	Rosemead
Merced	Newmark	Palos Verdes	Proctor	Royal
Metalcan	Niagara	Pan Aero	Protein	Rubidoux
Michillinda	Nietos	Pandol	Puente	Running Springs
Midwind	Niguel	Paper	Purewater	Rush
Military	Nogales	Parkwood	Purify	Rush Creek
Mill Creek 3	Nola	Passons	Quartz Hill	San Antonio
Milliken	Norseal	Pauba	Quinn	San Dimas
Minaret	North Intake	Paularino	Railroad	San Fernando
Minneola	North Muroc	Pearl	Ralphs	San Gabriel
Missile	North Oaks	Pebbly Beach	Ramona	San Marcos
Mobiloil	Northrop	Pechanga	Rancho	San Marino
Modena	Northwind	Pedley	Randall	San Miguel
Modoc	Norweld	Peerless	Randolph	San Vicente
Moneta	Nugget	Pepper	Randsburg	Sangar
Monolith	Oak Grove	Perez	Ravendale	Sanigen
Monrovia	Oak Park	Perry	Reclaim	Santa Ana PH 1
Montecito	Oakwind	Peyton	Recovery	Santa Ana River 3
Moog	Oasis	Pharmacy	Rectifier	Santa Barbara
Moraga	Ocean Park	Phelan	Redlands	Santa Fe Springs
Moreno	Oceanview	Pico	Redman	Santa Monica
Morningside	Octol	Pier	Redondo	Santa Rosa
Morro	Ojai	Pierpont	Redondo 66kv	Santa Susana
Morwind	Oldfield	Pioneer	Reduction	Santee
Moulton	Olive Lake	Pipe	Refinery	Sanwind
Mountain Pass	Olympic	Pitchgen	Refuse	Saticoy
Mountwind	Oneill	Pitman	Reno	Saugus

Savage	Slater	Talbert	Tortoise	Wave
Sawtelle	Smiley	Tamarisk	Toyota	Webmet
Seabright	Soco	Tanker	Transwind	Weldon
Searles	Solemint	Tapia	Trask	Wellgen
Seawind	Somerset	Tayshell	Triton	Wesbasin
Second Avenue	Somis	Team	Trona	West Barstow
SEGS 2	Sony	Telegraph	Trophy	West Riverside
SEGS 3	Sopipe	Temple	Tulare	Westex
SEGS 4	Soport	Tenaja	Tule PH	Westgate
SEGS 5	Soquel	Tengen	Twentynine Palms	Westhill
SEGS 6	South Gate	Tennessee	Ultragen	Westpac
SEGS 7	Southbase	Terawind	Unimed	Weymouth
Sepulveda	Southcap	Terra Bella	Unioil	Wharf
Serrfgen	Southdown	Terrace	Universal	Wheatland
Server	Southwind	Thornhill	University	Whipple
Shandin	Space	Thousand Oaks	Upland	White Mountain
Sharon	Sparkle	Three Rivers	Vail	Whitewater
Shawnee	Sponge	Thrive	Valdez	Willamette
Shelline	Stadium	Thrust	Valencia	Wilsona
Shellsom	Stadler	Thums A	Vapor	Wimbledon
Shellwatt	Stanhill	Thums B	Vegas	Windsor Hills
Sherwin	State Street	Thums C	Venice Hill	Woodruff
Ship	Stent	Thums D	Venida	Woodville
Shred	Stetson	Thunderbird	Venwind	Wrightwood
Shultz	Stevedore	Tidelands	Vera	Yermo
Shuttle	Stewart	Tiefort	Verdant	Yorba Linda
Sierra Madre	Stoddard	Tiffanywind	Victoria	Yucaipa
Sierra PH	Strathmore	Timberwine	Victorville	Yucca
Siggen	Studio	Timoteo	Visalia	Yukon
Signal Hill	Sullivan	Tippecanoe	Wabash	Zack
Silver Spur	Sun City	Tipton	Wakefield	Zanja
Simpson Paper	Sunny Dunes	Titans	Walker Basin	Zondwind
Sixteenth Street	Sunnyhills	Topanga	Walteria	
Skiland	Sunnyside	Topaz	Washington	
Skinwater	Sunshine	Torrance	Wastewater	
Skylark	Tahiti	Torrey	Watson	