



June 29, 2020

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
2019 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 2019.

If you have any questions please give me a call.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel D. Karzen".

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

Attachments

2019 General Order 174 Report

Inspection Type	Completed*	Past Due*	Notes
GO 174 Substation Inspection	5,027	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 #	8
Substation Inspection Practices		Effective Date	6/26/2020

Southern California Edison Company

GO 174 Substation Inspection Practices

T&D Business Line	Signature	Annual Review Date
Compliance Integration Senior Manager	Joel Karzen 	6/26/2020

July 2020

Transmission & Distribution Business Unit	GO 174	Version #	8
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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.

6.1.7. Notification Prioritization

Notifications must be properly prioritized. Prioritization is essential in determining end dates for the anomalies. SCE utilizes three (3) priorities that are defined in Table 1 below:

Table 1 – GO 174 Notification Priorities

Priority	Priority Description
1	Potential risk to safety or equipment reliability. Must be addressed immediately.
2	Repair or reassess by prescribed due date or within 6 years . Does not pose an immediate threat to safety or equipment reliability.
3	Opportunity work to be completed upon next inspection period or when time, resources, and/or schedule permit.

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 removed 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		Minor edits for added clarity.	6/27/2019
Attachment A		Updated Substation List, to include new substations and removed out of service substations.	06/26/2020
6		Added a new sub-section 6.1.7. Notification Prioritization.	06/26/2020

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

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

Marion	Narod	Outfall	Porterville	Rolling Hills
Mariposa	Narrows	Oxgen	Potrero	Rosamond
Marymount	Natural	Pacline	Procal	Rosecrans
Mascot	Navy Mole	Palm Canyon	Process	Rosemead
Maxwell	Nelson	Palm Springs	Procggen	Royal
Mayberry	Neptune	Palm Village	Proctor	Rubidoux
Mayflower	Newbury	Palmdale	Protein	Running Springs
Mcgen	Newcomb	Palos Verdes	Puente	Rush
Mcgrath	Newhall	Pan Aero	Purewater	Rush Creek
Mentone	Newmark	Pandol	Purify	San Antonio
Merced	Niagara	Paper	Quartz Hill	San Dimas
Metalcan	Nietos	Parkwood	Quinn	San Fernando
Michillinda	Niguel	Passons	Railroad	San Gabriel
Midwind	Nogales	Pauba	Ralphs	San Marcos
Military	Nola	Paularino	Ramona	San Marino
Mill Creek 3	Norseal	Pearl	Rancho	San Miguel
Milliken	North Intake	Pebble Beach	Randall	San Vicente
Minaret	North Muroc	Pechanga	Randolph	Sanigen
Minneola	North Oaks	Pedley	Randsburg	Santa Ana PH 1
Missile	Northrop	Peerless	Ravendale	Santa Ana River 3
Mobiloil	Northwind	Pepper	Reclaim	Santa Barbara
Modena	Norweld	Perez	Recovery	Santa Fe Springs
Modoc	Nugget	Perry	Rectifier	Santa Monica
Moneta	Oak Grove	Peyton	Redlands	Santa Rosa
Monolith	Oak Park	Pharmacy	Redman	Santa Susana
Monrovia	Oakwind	Phelan	Redondo	Santee
Montecito	Oasis	Pico	Redondo 66kv	Sanwind
Moog	Ocean Park	Pier	Reduction	Saticoy
Moraga	Oceanview	Pierpont	Refinery	Saugus
Moreno	Octol	Pioneer	Refuse	Savage
Morningside	Ojai	Pipe	Reno	Sawtelle
Morro	Oldfield	Pitchgen	Renwind	Seabright
Morwind	Olive Lake	Pitman	Repetto	Searles
Moulton	Olympic	Piute	Revital	Seawind
Mountain Pass	Oneill	Pixley	Rialto	Second Avenue
Mountwind	Onshore	Placentia	Ridgecrest	SEGS 2
Moval	Ontario	Plastic	Ringmill	SEGS 3
Movie	Ontario PH 1	Playa	Ripley	SEGS 4
Mt. Tom	Ontario PH 2	Pluess	Riteaid	SEGS 5
Mt. Vernon	Orange	Polaris	Ritter Ranch	SEGS 6
Murphy	Orcogen	Polypro	Rivera	SEGS 7
Murrietta 2	Orcosan	Pomona	Rivertex	Sepulveda
Muscoy	Ordway	Poole PH	Riverway	Serrfggen
Naomi	Oro Grande	Poplar	Rockair	Server
Naples	Ortega	Portal	Rocket Test	Shandin

Shawnee
Shellsom
Shellwatt
Sherwin
Ship
Shred
Shultz
Shuttle
Sierra Madre
Sierra PH
Siggen
Signal Hill
Silver Spur
Simpson Paper
Sixteenth Street
Skiland
Skinwater
Skylark
Slater
Smiley
Soco
Solemint
Somerset
Somis
Sony
Sopipe
Soport
Soquel
South Gate
Southbase
Southcap

Southdown
Southwind
Space
Sparkle
Sponge
Stadium
Stadler
Stanhill
State Street
Stent
Stetson
Stevedore
Stewart
Stoddard
Strathmore
Studio
Sullivan
Sun City
Sunny Dunes
Sunnyhills
Sunnyside
Sunshine
Tahiti
Talbert
Tamarisk
Tanker
Tapia
Tayshell
Team
Telegraph
Temple

Tenaja
Tengen
Tennessee
Terawind
Terra Bella
Terrace
Thornhill
Thousand Oaks
Three Rivers
Thrive
Thrust
Thums A
Thums B
Thums C
Thums D
Tidelands
Tiefert
Tiffanywind
Timberwine
Timoteo
Tippecanoe
Tipton
Titans
Topanga
Topaz
Torrance
Torrey
Tortoise
Toyota
Transwind
Trask

Triton
Trona
Trophy
Tulare
Tule PH
Twentynine Palms
Unimed
Unioil
Universal
University
Upland
Vail
Valdez
Vapor
Vegas
Venice Hill
Venida
Venwind
Vera
Verdant
Victoria
Victorville
Visalia
Wabash
Wakefield
Walker Basin
Walteria
Washington
Wastewater
Watson
Wave

Webmet
Weldon
Wellgen
Wesbasin
West Barstow
West Riverside
Westex
Westhill
Westpac
Weymouth
Wharf
Wheatland
Whipple
White Mountain
Whitewater
Willamette
Wilsona
Wimbledon
Windsor Hills
Woodruff
Woodville
Wrightwood
Yermo
Yorba Linda
Yucaipa
Yucca
Yukon
Zack
Zanja
Zondwind