



Tie Line 649 Wood-to-Steel Replacement Project
Construction Fire Prevention Plan

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1. CONSTRUCTION FIRE PREVENTION PLAN DEFINITIONS

- 1. ESP 113.1 SDG&E Wildland Fire Prevention & Fire Safety Plan (SDG&E ESP 113.1):** This is an internal San Diego Gas & Electric (SDG&E) standard practice or procedure outlining fire suppression tools and equipment required for its employees and contractors, fire prevention requirements, and fire-related training. It serves as an attachment to this Construction Fire Prevention Plan (Plan).
- 2. Fire Coordinator (FC):** An SDG&E employee who serves as liaison or agency representative to the fire agencies and other emergency services during an emergency and with other fire related activities in non-emergency situations.
- 3. Fire Patrol:** Fire patrol(s) are personnel who are assigned the responsibility and accountability for fire prevention, risk management, early detection of fires, and rapid extinguishment.

A “**designated**” Fire Patrol is a member of a work crew who is assigned the responsibility and accountability for fire prevention, risk management, early detection of fires, and rapid extinguishment. This can be accomplished co-laterally with other work duties but must be ready to respond with appropriate fire equipment.

A “**dedicated**” Fire Patrol is a person(s) assigned duties associated with fire prevention and fire safety for a specific job or location, with appropriate training and equipment equivalent to the risk presented. This would be their sole duty while serving as a dedicated Fire Patrol, and are typically assigned to a fire engine or water tender, but not necessarily.

- 4. Fire Tools:** References to “fire tools” pertains to firefighting tools which include: shovels (round point with a minimum 46-inch handle), Pulaskis, and a five-gallon backpack pump (rubber or metal). These tools are commonly required on project vehicles and work sites. Additional requirements may be identified which increase the number of fire tools above what is found on the vehicles.
- 5. California Public Utilities Commission’s (CPUC’s) High Fire Threat District (HFTD):**
 - Tier 2* – This region consists of areas on the CPUC Fire-Threat Map where there is an elevated risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility power lines or overhead utility power-line facilities also supporting communication facilities.
 - Tier 3* – This region consists of areas on the CPUC Fire-Threat Map where there is an extreme risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility power lines or overhead utility power-line facilities also supporting communication facilities. Tier 3 is distinguished from Tier 2 by having the highest likelihood of utility-associated fire initiation and growth that would impact people or property, and where the most restrictive utility regulations are necessary to reduce utility fire risk.
 - Zone 1* – This region consists of Tier 1 High Hazard Zones (“HHZs”) on the map of Tree

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Mortality HHZs prepared jointly by the United States Forest Service and the California Department of Forestry and Fire Protection (CAL FIRE). (Note: For SDG&E, Zone 1 is encompassed within Tier 2 and Tier 3.)

6. **At Risk Activity:** Project activities that present a risk of igniting a wildfire.
7. **Fire Potential Index (FPI):** This is a comprehensive assessment of fire risk, used as a tool for making operation and maintenance (O&M) decisions related to fire prevention. The tool converts environmental, statistical, and scientific data into an easily understood forecast of short-term fire threat. The index is generated for a seven day forecast period for an assortment of geographic areas within the service territory. The seven-day forecast is used for planning purposes while the daily FPI is also used for work activities. The FPI is used to determine the operating condition for each day (Normal, Elevated, or Extreme), definitions of each to follow.

Normal Operating Condition: It is considered “Normal” operating condition when the FPI is in any shade of green (*very low, low, or moderate*). All O&M activities can take place in the wildland areas of the service territory without additional fire risk management, as long as baseline fire equipment is available as prescribed in this plan. Note: the baseline fire equipment requirements meet or exceed all local, state, and federal requirements for working in the wildland areas

Elevated Operating Condition: It is considered “Elevated” operating level when the FPI is either yellow or orange (high or very high). Certain “at risk” O&M activities (as identified in the matrix, attachment 2) will require additional risk management (as prescribed in the matrix, see attachment 2) to perform those work activities.

Extreme Operating Condition: It is considered “Extreme” operating level when the FPI is red (extreme). No “at risk” activities should be conducted except for those activities which if, left undone, present a greater risk than that involved with their accomplishment. Consultation with the On-duty Fire Coordinator is required to help make that determination and identify additional fire prevention measures required to reduce risk.

8. **Red Flag Warning (RFW):** A RFW is issued for a stated period of time by the National Weather Service using pre-determined criteria to identify particularly critical danger in a particular geographic area. All construction and maintenance activities shall cease during RFWs, as discussed in the Plan.
9. **Major Operation Worksite (MOW):** It will be considered a MOW when work activities or staging of resources will be concentrated in and out of a staging facility. These work sites are typically large in size and include but are not limited to construction yards, fly yards, substation pads and any other area where construction work will be concentrated.

10. **Construction Fire Prevention Plan:** The Plan will be developed and implemented by SDG&E

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to provide fire prevention guidance for a specific construction project.

11. Project: “Project” may be used interchangeably in place of the formal name of the project in the Plan.

2. PROJECT DESCRIPTION

General Location:

The Tie Line (TL) 649 Wood-to-Steel Replacement Project (Project) begins in the west at Pole 1 at Black Coral Way and Sea Lavender Way in the City of San Diego, California. It runs east within the Otay River Valley. At a tap intersect at O’Neil Canyon the Project runs south to Pole 117, near Interstate (I-)125 and I-905. This Project has some components outside and some components in Tier 2 or the HFTD.

Table 1 - Fire Jurisdiction and Land Ownership

Land Ownership	Fire Protection Responsibility	Length/Area within Project Boundary	Emergency Contact
LRA	San Diego Fire Department	2 miles	911
LRA	Chula Vista Fire Department	5.2 miles	911
SRA	CAL FIRE	0.4 mile	911

(DPA, Direct Protection Area; SRA, State Responsibility Area; FRA, Federal Responsibility Area; LRA, Local Responsibility Area)

Scope and Intent of Proposed Project:

The Project will replace a portion of TL649, a 69 kilovolt single-circuit power line located between Pole 1, located in the City of San Diego, to Pole 116, located in unincorporated County of San Diego.

The Project consists of the following components:

- Replace approximately 133 existing wood poles with approximately 118 steel poles.
- Conduct overhead work only on one existing steel pole and two existing wood poles.

Project Time Frames: The actual construction schedule is dependent upon permitting, and other factors that may affect the Project. Once construction is initiated, construction will continue until the Project is complete. Work on the Project will take place during all seasons within the proposed time frames. The FPI will determine the fire risk level and therefore the fire prevention measures for each activity on the Project.

HFTD Work Activities: The following work activities will take place in areas considered to be wildland as referenced by the HFTD:

- grading for road maintenance and pole foundations;

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- reducing hazards with mowers and weed eaters;
- removing existing wood poles;
- excavating, preparing, and pouring new steel pole foundations;
- digging and setting direct bury new steel pole;
- operating generators, compressors, chainsaws, and other internal combustion engines;
- operating backhoes, augers, and other rock-striking equipment;
- welding and cutting steel and wood poles;
- holding construction meetings at the staging yard;
- environmental monitoring;
- reconductoring (energized/de-energized);
- micropile foundations; and
- blasting and other rock-splitting methods.

3. PROJECT FIRE RISKS AND FIRE PREVENTION MEASURES

During the construction phase of the Project, SDG&E will implement the fire prevention measures listed in the Project Fire Prevention Matrix (Attachment 1) which describes activities creating fire risks that will occur within the HFTD. The Project Fire Prevention Matrix is based on the Fire Risk & Mitigation Matrix (SDG&E ESP113.1) and may contain additional fire prevention measures based on Project-specific risks. Activity risks identified after Project initiation shall be added to the Project Fire Prevention Matrix with appropriate fire prevention measures determined by the Field Construction Advisor (FCA) and FC and/or the appropriate fire agency with jurisdictional responsibility.

4. MAJOR OPERATION WORKSITES

Table 2 - Major Operation Worksites

Name	Fire Protection Responsibility	Address (Latitude/Longitude)	Acres
Main Street	Chula Vista Fire Department	2052 Entertainment Circle (32.5890/117.0073)	6
Otay	San Diego Fire Department	Otay Mesa Road at Alta Road (32.5672/116.9103)	4

The following precautions will take place at each MOW:

- MOWs will be assessed by the FCA for wildland fire risk prior to beginning operations at the Project site.

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- Hazard reduction inside and around the perimeter of the MOW will be performed according to environmental specifications.
- Other fire prevention measures may include regular watering to reduce fire potential.
- Smoking, welding, and fueling of equipment will be done only in designated areas with appropriate fire protection measures in place.
- Each site will have a minimum of one fire box with tools for five personnel (i.e., three shovels and two Pulaskis). Additional tools and equipment may be required as determined by the FCA in addition to what is carried on vehicles.
- Additional tools, equipment, and requirements identified during inspections will be documented in this Plan and posted at the Project field office.

5. OTHER PROJECT TOOLS AND EQUIPMENT REQUIREMENTS

The following equipment **may be required** to be staged as proximate as possible to ongoing Project activities as determined by the FCA. These items should be strategically placed to afford the best opportunity to help to prevent ignitions and expeditiously extinguish any fire resulting from Project activities.

- a fire engine with a minimum of 150 gallons of water and an operator;
- a water tender with a 50-foot hose and nozzle;
- a water tank (water buffalo) with at least 50 gallons of water for filling back pumps; and
- enough hose to reach the worksite when a water source (fire engine, tender, or tank) is used for fire stand-by.

6. AGENCY-SPECIFIC REQUIREMENTS

CAL FIRE: The Project activities must comply with Title 14 of the California Code of Regulations; California Forest Practice Rules, in its entirety for the duration of the Project with particular attention to Chapter 4, Subchapter 4, 5, and 6 Article 8 Fire Protection. In addition, the Project must comply with Public Resource Codes (PRC) 4427 Operation of Fire Causing Equipment; PRC 4431, Gasoline Powered Saws and Equipment; and PRC 4442, Spark Arrestors.

San Diego Fire Department: Same

Chula Vista Fire Department: Same

7. RED FLAG WARNINGS AND OTHER CRITICAL FIRE DECLARATIONS

When there is a notice of a RFW, the FPI will default to “Extreme” condition. This applies

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for the specific weather zone involved and lasts for the entire duration of the RFW. Project Managers (PMs), FCAs, and supervisors will be responsible for exchanging their contact information with Grid Operations, to ensure they are notified of these events. It is the responsibility of supervisors and crew members to know and communicate the details of a RFW before work begins to minimize the risks associated with the RFW. At the end of the RFW, confirmation should be obtained from the on-call FC (858-503-5152) that work can begin again and if restrictions are imposed.

At times, other fire danger declarations can be made by any jurisdictional fire department for a given period of time. As soon as these declarations are shared with the PM and FCA, they will be communicated to Project personnel. Restrictions and fire prevention measures will apply until the declarations are lifted.

8. TRAINING REQUIREMENTS FOR SDG&E AND CONTRACT PERSONNEL

Prior to the initiation of construction activities, it is recommended that all Project construction personnel (SDG&E and contractors) receive training on Wildland Fire Prevention and Safety (SDG&E ESP113.1). This training should be provided by a qualified instructor. Training shall include:

- fire prevention,
- fire detection and reporting, and
- extinguishment tools and methods.

Prior to the start of construction, all Project personnel will receive a presentation on the contents of the Plan, along with additional fire safety and fire prevention information. Construction personnel will receive annual refreshers and/or as needed.

9. TAILBOARDS, INSPECTIONS, REVIEW, AND COMPLIANCE

Construction supervisors will be responsible for sharing the contents of the Fire Plan with construction personnel throughout the duration of the Project. A review of the content of this Plan will take place at a formal safety meeting. Daily safety tailboard sessions should include an assessment of the day's FPI level and discussion of the fire risk for the day.

The FCA shall perform periodic inspection of equipment and worksites to verify compliance with this Plan. Compliance with the Fire Prevention Plan is mandatory. Monitoring compliance with this Plan is everyone's responsibility. Project management should identify who has authority to shut down any operation that presents an inappropriate amount of fire risk or hazard until it can be properly addressed.

Violations of the requirements of this Plan will be addressed immediately. Appropriate consequences for repeated violations or negligence in respect to this Plan will be forwarded

to the appropriate management for action.

All Project-related vegetation fires, regardless of size, shall be promptly reported to the agency having jurisdiction. The PM, FCA, and FC shall also be immediately notified.

10. COMMUNICATIONS PLAN

The ability to communicate with all Project personnel working within the Project right-of-way and to contact emergency first responders is critical for fire and personnel safety. Cell phone, satellite phone, and/or radio are all acceptable. All personnel must know emergency communication procedures while on the Project. 911 is the primary first responder contact number for all incidents. All fires will be reported to the fire agencies with jurisdiction in the project area immediately upon discovery.

11. REFERENCES:

SDG&E ESP113.1

12. ATTACHMENTS:

- **Attachment 1:** Project Fire Prevention Matrix
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Attachment 1 – Project Fire Prevention Matrix

		Operating Level Conditions (FPI)		
Activity	Tools and Equipment	NORMAL	ELEVATED	EXTREME
A designated fire patrol must be assigned at all levels and jobs unless otherwise noted.				
Vehicles, Roads, and Pads				
Privately owned vehicle (POV)	A POV used as transportation to a yard and parking in a POV area	No tools required when parked in designated area. (If the vehicle is brought out to sites, it must have the same tools as other Project vehicles).	Same	Same
Project vehicles	Company-owned vehicles	One round point shovel, one Pulaski, and one five-gallon backpack pump. Never park on top of vegetation.	Same	Same
Road and pad construction, grading, and maintenance	Grader, bulldozer, and other steel-bladed/tracked equipment	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Vegetation Management				
Chainsaw use and fueling	Chainsaw	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet. The shovel must be within 25 feet or a fire extinguisher in the operators immediate possession.	Same	No Work
Chipping vegetation off paved roads	Chippers	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank.	No Work
Fire hazard reduction	No mechanical equipment	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet.	Same	No Work
Fire hazard reduction (mechanized equipment)	Weed eater and mower	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank.	No Work

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		Operating Level Conditions (FPI)		
Activity	Tools and Equipment	NORMAL	ELEVATED	EXTREME
Equipment Repair, Replacement, and Installation				
Pole removal/replacement (direct bury)	Hand tools, augers, jackhammers, compressors, etc.	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet. Must have five feet of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Pole and tower foundations including micropile	Drill, compressor, backhoe, etc.	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet. Must have five feet of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Welding, cutting, and/or grinding wood or steel	Welder, grinder, saw, tec., gas-, air-, or electric-powered	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet; 10 feet of clearance on all sides, wet down surrounding vegetation. Use asbestos curtain/apron. Fire patrol site at least 30 minutes after work completed.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol site one hour after work completed.	No Work
Working on or in proximity to energized equipment and facilities, including removal and replacement and new installations	Conductor, transformers, switches, etc.	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Reconductoring (de-energized)	Pull and travel equipment	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet of pull and feed site.	Same	No Work
Reconductoring (energized)	Pull and travel equipment	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet. Post lookouts at strategic locations.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank.	No Work

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		Operating Level Conditions (FPI)		
Activity	Tools and Equipment	NORMAL	ELEVATED	EXTREME
Re-energizing equipment, segments, and circuits		One round point shovel, one Pulaski, and one five-gallon backpack pump. Post observers at strategic locations with communication.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Internal combustion engines, equipment, and machinery - off paved roads	Generators, compressors, and any piece of equipment with a combustion engine	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet; must have five feet of clearance on all sides and no combustible material underneath; approved spark arrestors on exhaust.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank. Dedicated fire patrol.	No Work
Smoking	Cigarettes and cigars (electronic cigarettes can be used anywhere)	When permitted, smoking will be in designated areas only, 10-foot cleared circle, with ash can and no butts left on the ground.	Same	Never
Rock splitting	Rock drills, breakers, and blasting systems	One round point shovel, one Pulaski, and one five-gallon backpack pump within 50 feet of each worksite or as permitted. Blasting operations permits and protocols.	Same and 150 gallons (minimum) of water with pump, hose, and nozzle. Water tender, water buffalo, or other water tank at each worksite. Dedicated fire patrol.	No Work