

SAN DIEGO GAS & ELECTRIC
WILDLAND FIRE PREVENTION & FIRE SAFETY GUIDE

I. PURPOSE

Southern California provides one of the most dangerous natural wildland fuel scenarios and explosive fire weather potential in the world. Fire season generally runs from early May into November. Extended dry periods can bring us into fire season essentially any time of the year. SDG&E facilities, equipment, and activities present a potential wildland fire ignition risk which must be minimized to the extent reasonably possible. In the event of a fire, we must also be equipped to enable suppression efforts for small fires, thus possibly preventing a major fire. Most importantly, we must provide the resources and training necessary to keep our employees safe while working in the wildland areas. The intent of this document is to formalize some procedures and routine practices that will:

- Assist SDG&E employees in their understanding of fire prevention and improve their ability to prevent the start of any fire. The emphasis will be on wildland fires, especially during the critical times of the year when the fire risk is high.
- Set recommendations for certain tools and equipment to be present in our vehicles and on our work sites, when performing identified operational risks. This will assist with rapid extinguishment of small fires in the event one should occur.
- Incorporate State, Federal, and local requirements into our standard way of doing business to provide compliance with rules and regulations on a daily basis. This would include, but not be limited to: pertinent laws, Forest Practice Regulations, and “Special Use Permit” or “Right of Way” fire related requirements.
- Define restrictions mandated by “Red Flag Warnings”, “Project Activity Levels”, or other unique fire danger scenarios; provide means for determining when these restrictions are in effect, what activities they prohibit, and the precise locations to which they apply; and identify the notification procedures for all affected employees and contractors.
- Establish communication requirements when working in the wildland areas.
- Discuss additional and/or optional mitigation measures to reduce the risk of fire start in particularly hazardous situations or scenarios.
- Share some common sense practices, with regard to fire safety, that should be used in all activities to reduce the risk of fires and prevent injury to an employee as a result of a fire.

II. APPLICABILITY

This applies to SDG&E field personnel who will likely work in the wildland areas of the service territory during times that are conducive to wildland fire occurrence. This also includes Distribution and Transmission operating personnel who will be involved with field personnel in regards to safety, system reliability and/or restoration. Contractors performing work for SDG&E will be expected to comply with this Fire Plan as it relates to their activities as well.

III. DEFINITIONS

- Wildland Area
 - This is any area with significant wildland vegetation (trees, chaparral, grass, and ground litter) to support the ignition and spread of a wildland fire.
- State Responsibility Area (SRA)
 - This is the California Department of Forestry (CDF) jurisdiction for fire protection. It is comprised of primarily wildland vegetation or residential interface within the wildland areas.
- Fire Season
 - Fire season applies to those periods of time that the fire agencies determine conditions exist to be conducive to the start of wildland fires. The start and closing of each fire season is officially announced by the appropriate agencies. Other periods outside of fire season can be identified by "Proclamation" as having that same potential and thus requiring the same considerations.
- Pulaski
 - The Pulaski is an axe-like fire hand tool used primarily for cutting or grubbing forest fuels.
- McLeod
 - The McLeod is a fire hand tool used for raking and scraping forest fuels.
- Red Flag Warning
 - This is an early warning issued by the National Weather Service to advise occupants of the wildland areas of extreme fire weather conditions. Certain requirements and precautions are implied by this warning.
- Project Activity Levels
 - This is a federal program designed to reduce the risk of fire starts during forest related work on high fire danger days.

IV. PROCEDURES

EQUIPMENT & FACILITY RISK:

The nature of utility equipment and facilities in and of themselves presents a fire risk. As a result there are laws and regulations governing utilities in this regard. The following Public Resource Code (PRC) sections exist to reduce utility specific risks involved with wildland fire. SDG&E is proactive in insuring compliance with each of these on a continual basis.

- PRC Section 4290 - *Regulations Implementing Minimum Fire Safety Standards Related to Defensible Space Applicable to State Responsibility Lands.*
- PRC Section 4291 – *Reduction of Fire Hazards Around Buildings.*
- PRC Section 4292 – *Power Line Hazard Reduction, 10' clearance around power poles with non-exempt hardware.*
- PRC Section 4293 – *Power Line Clearance Required, between vegetation and conductors, 4' for 2,400-71,999 volts, 6' for 72,000-109,999 volts, and 10' for 110,000 and above.*

Some departments are tasked specifically with responsibility for compliance with these regulations. The SDG&E Vegetation Management Program, in the Construction Services Department, has an extensive tree pruning and removal program to provide adequate line clearance. They also treat all non-exempt power poles in the specified area to maintain the 10' clearance required by PRC 4292. Personnel from Land Services, Facilities, and Fire Coordination work together to meet defensible space requirements, as well as other fuel hazard reduction where applicable. **However, it is the responsibility of all SDG&E employees and contractors to support the company's efforts to comply with these regulations.**

OPERATIONAL RISKS:

The Control Centers, Dispatch Center, and Fire Coordinator will provide general information to SDG&E employees regarding fire season status. During these defined periods, the following SDG&E related activities present an elevated risk of fire ignition. Caution is critical during performance of any of these activities.

- Any off-road vehicle use.
- On highway activities located in particularly hazardous fuel conditions.
- Chain saw use of any kind.
- Operation of generators, pumps, augers, two-cycle motors, or other equipment capable of producing sparks or ample exhaust heat to cause ignition.
- Other tree removal equipment including but not limited to grinders, chippers, skidders, excavators, etc.
- Grinding and welding
- Blasting or other explosive work
- Working on energized electrical equipment or facilities.
- Smoking

TOOLS AND EQUIPMENT:

The following will be SDG&E recommendations regarding tools and equipment to be carried in or on described vehicles, or available at described work sites when engaged in any of the operational risks discussed above. These items will meet the California Forest Practice Rules; Public Resource Code Division 4, Chapter 6. Availability of this equipment will also meet the majority of the requirements mandated by the wildland fire agencies within the company service territory. Some additional project specific or weather specific requirements may be necessary and will be discussed later in this plan.

Passenger Vehicles (non-transient, performing work in the wildland areas);

- 1 round point shovel with overall length of at least 46"
- 1 serviceable fire extinguisher, minimum U.L. rated 2 BC, *rating found on fire ext. label*)

Trucks & 4 Wheel Drive Vehicles;

- 1 round point shovel with overall length of at least 46"
- 1 axe or "Pulaski"
- 1 (5) gallon backpack pump (optional) in lieu of or in addition to 2 BC rated extinguisher.

Heavy Machinery or Equipment (including tub grinders, whole tree chippers, drilling rigs, tractors, etc.);

- 1 round point shovel with overall length of at least 46"
- 1 axe or "Pulaski"
- 1 (5) gallon backpack pump or fully charged U.L. rated 4 BC or larger fire extinguisher

Chain Saw Use;

- 1 shovel within 25 feet of operation with unrestricted access
- or 1 serviceable fire extinguisher in their immediate possession

Major Operations Work Area (fire toolbox should be located on site, accessible to all);

- 1 (5) gallon backpack pump
- 2 axes or "Pulaskis"
- 2 "McLeod" fire tools
- Round point shovels 46" for each employee assigned to work site

Optional Considerations for Critically Hazardous Areas;

- Project Specific Fire Plan, developed with Fire Coordinator and/or Fire Department input.
- Water Supply, recommended 1500 gal. minimum (Tank, truck, or hydrant)
- Fire Hose (and associated accessories)
- Dozer or Tractor (capable of producing fire line)

FIRE PREVENTION & SAFETY CONSIDERATIONS:

The following Safety considerations will help to reduce the risk of fire start (Fire Prevention), as well as provide for the safety of company employees while working in the wildland areas (Fire Safety).

Fire Prevention

- At project initiation, conduct a formal "Safety Meeting" addressing fire concerns. Have regular tailboard fire safety meetings for the duration of the project.
- Smoke only in designated smoking areas or in a 10' clearing void of all grass and other vegetation.
- Avoid idling or parking in areas of brush, grass, or vegetation litter.
- Consider work hour restrictions where applicable. During critical fire weather, avoid working in the wildland areas during the hottest and driest part of the day.
- Use a "Fire Patrol" (person specifically assigned to mitigate fire hazards) on high fire danger days. Their duties would include: verification of compliance with the fire plan, observe activities for fire prevention & safety, and to re-check work area after the day's activities have been completed.
- Provide vegetation clearance or reduction around particularly hazardous work activities or work areas. Use special mitigation, as appropriate, to reduce the hazard.

Fire Safety

- Use proper P.P.E. (Personal Protective Equipment), standard SDG&E requirements apply. When working within an uncontrolled fire perimeter fire resistant clothing should be worn. Respiratory protection (painter's mask or bandana) is recommended as well.
- When working in or adjacent to a wildland fire, positive communications must be maintained internally using SDG&E work protocols. It is critical that employees have the ability to communicate with fire agencies as well, both for reporting fires and for the exchange of critical information during the duration of an incident.
- Work within the Incident Command System (ICS) while assigned to a fire incident. Understand the chain of command for the incident and who you are accountable to. Check in and check out when entering an uncontrolled fire perimeter.
- Pre-plan safety zones (areas large enough to safely retreat to) and escape routes (safe access to these safety zones) when working in the wildland areas during high fire danger days.
- Get proper rest during extended fire activity to avoid fatigue and help prevent accidents and/or injuries. It is recommended that you receive a minimum of 1 hour rest for every 2 hours worked.
- Exercise extreme caution when driving within a fire area and/or in smoky conditions. Beware of falling rocks, trees, and other debris as well as road obstructions and other traffic.

RED FLAG WARNINGS:

The Red Flag Warning System, a joint effort between state, federal and local fire agencies, was brought about after a very catastrophic 1970 Southern California fire season. The original intent was to pass along critical fire weather information to users and occupants in the wildland areas to bring about more prudent actions in all their wildland related activities. Currently SDG&E Grid Operations is operating under the direction of TMC1320, Hazardous Fire Conditions-Red Flag Warning, Transmission Monitoring and Control, 12/01/2003. Distribution Operations is operating under the direction of Electric Standard Practice No. 109, Hazardous Fire Conditions, June 01, 2000. When a Red Flag Warning is declared notifications take place as described in both

directives and the following actions take place: *(The affected area in both directives is identified on a map in an appendix, as the CDF protection area or SRA, State Responsibility Area)*

- Transmission lines and/or distribution circuits, which have tripped to lockout, will not be tested manually or remotely (see exception below) until the line or line segment has been patrolled or the cause of the interruption has been identified and isolated, or repaired. A line patrol is also required prior to replacing sectionalizing or transformer station fuses that have blown. *Exception: A transmission line may be tested, one time only, if the loss of another transmission facility could lead to system instability or cascading outages.*
- Customer outage time should be held to a minimum by sectionalizing, patrolling, and energizing segments of the circuit.
- A fireguard (*fire patrol*) will be assigned to any operation that has the potential to cause a fire.
- No open burning will be permitted.
- All fires will be extinguished.
- All non-critical line clearance tree pruning and removal activities will cease. Permission may be obtained to continue tree related work by contacting the Area Forester, Contract Administrator, System Forester, Vegetation Program Manager, or the Fire Coordinator. Approval will be granted on a case by case basis, depending on the situation.
- All Blasting will be discontinued.
- All grinding and welding will discontinue, except in enclosed buildings or within areas cleared of all flammable material for a radius of 15 feet.
- Vehicular travel will be restricted to cleared roads except in case of an emergency. In no case will vehicles with hot exhaust systems be driven over or parked in grassy areas.
- Smoking will not be permitted.

In addition to these requirements, extra caution should be used when performing any of the activities described as operational risks (*in an earlier section above*) while working in the State Responsibility Areas (SRA) or other wildland areas outside of the SRA.

PROJECT ACTIVITY LEVELS:

The United States Forest Service has another program it utilizes to reduce the risk of fire on National Forest land, particularly in the timber or mountain areas. It is referred to as Project Activity Levels (*PAL's*). The San Diego Forest Area Safety Taskforce (*FAST*) has adopted this system for other timber and mountain areas of San Diego County. The FAST group, which includes USFS and SDG&E representation, has developed a standard interpretation of how the PAL's system will be applied throughout San Diego County. Each day, at 4:00 p.m., the PAL level will be determined for the following day. It may be a different level for different geographic areas of the county. This information will be available by calling (760) 233-9507 (*NRCS PAL hotline*), (619) 557-5262 (*U.S. Forest Service Dispatch*), or (619) 442-1615 (*CDF Dispatch*). Although the intent of the PAL system is to reduce the risk of fire start from timber harvesting activities, restrictions should apply to any potential fire starting activities. The designations and resulting restrictions are shown below. Each level is progressive carrying the requirements of the lower level with it.

<u>PAL Level:</u>	<u>Restrictions or Requirements:</u>
A	Work as required by contract, use permit, and existing forest practice rules.
B	Furnish Fire Patrol when high-speed rotary head equipment (masticator) is being used, during and for two hours after operations have ceased.
C	<p>Following are prohibited after 1:00 p.m.</p> <ul style="list-style-type: none"> ○ Use of high speed rotary head (masticator) ○ Blasting ○ To use chainsaws after 1:00 p.m. the following must be available (within 100'): <ul style="list-style-type: none"> ▪ Fire Patrol w/shovel or McLeod and 5 gallon backpack pump ▪ Fire Patrol must function as patrol, with no other functions ▪ Additional water available on site (truck, trailer, or hydrant)
D	<p>The following are prohibited after 1:00 p.m.</p> <ul style="list-style-type: none"> ○ Use of tractor, skidder, feller buncher, forwarder, or chipper ○ Mechanized loading and hauling, except log trucks ○ Felling dead material that has died more than 3 years prior (punky wood) ○ Mechanized slash disposal
Ev (<i>E with a variance</i>)	Operations are permitted between daylight and 8:00 p.m. as described under Level D with the following exception: No steel track-mounted equipment shall be operated
E	All potential fire causing activities cease at 1:00 p.m.

As complicated as this system may seem, a careful look reveals very few SDG&E related activities being affected by the daily PAL level, with the exception of vegetation management work. When performing activities in the mountainous area that have a potential to ignite a wildland fire, ascertain the PAL level for the area you are working in and apply the information discussed above.

OTHER CRITICAL FIRE DANGER PROCLAMATIONS:

The Fire Chiefs with jurisdictional responsibility for a given area have the authority to proclaim certain restrictions in extreme fire conditions or when they are experiencing a critical shortage of resources. These cases will be very rare and it will be incumbent on them to insure we are informed of any temporary changes in fire restrictions for a particular area. Upon notification we would be required to comply as appropriate.

RECOMMENDED FIRE RELATED TRAINING:

It is recommended that all field employees have some basic fire safety training on an annual basis. This could be accomplished in one hour at a monthly safety meeting just prior to fire season. Review and discussion of this Fire Plan would be one means for providing this training. For those employees who are likely to be called to work within or immediately

adjacent to an uncontrolled fire area, the following additional training is recommended: Two hours of Fire Safety, Incident Command System, and Basic Fire Behavior. For supervisors, managers, and company officers, who could be assigned as the SDG&E Incident Commander on a major incident, additional advanced Incident Command System training is advised. The Fire Coordinator would serve as the conduit for this training. He/She would provide the training, bring in qualified instructors, or qualify additional SDG&E employees as instructors, using the train the trainer approach to assist with this training.

EOC AND CONTROL CENTERS:

The Dispatch Center, Distribution Operations, Grid Operations, & EOC play a vital role in any fire emergency. Communications with these groups, when applicable, is critical. Provide information updates and feedback to each of these as their areas of responsibility become affected. This should continue through the duration of the incident. Early notification to the EOC of potential activation is recommended when appropriate. Notification procedures are identified in ESP 113 and should be followed as prescribed.

FIRE COORDINATION:

SDG&E has established a permanent position for Fire Coordinator. This position is essentially the company liaison to the fire services, both during an emergency and in the course of daily business. Back-up coordinators are available as well to cover off time for the primary coordinator and for when multiple incidents occur. Questions regarding this plan or other fire related inquiries should be made through the Fire Coordinator or acting coordinator. The Fire Coordinator would be a key contact for fire related training as well.

V. REFERENCES

- ESP 113 – Fire Coordination Electric Standard Practice
- TMC 1320 – Hazardous Fire Conditions-Red Flag Warning, Transmission Monitoring & Control
- ESP 109 – Hazardous Fire Conditions
- EOP 5700 – Incident Command System (ICS) for Major Incidents

VI. ATTACHMENT

State Responsibility Area (SRA) Map

State Responsibility Area

