

PROPERTY INSPECTION GUIDE



PROPERTY INSPECTION GUIDE

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FOREWORD

This revised *Property Inspection Guide, 2000 version*, contains standards and practices to minimize the loss of life and property from wildfire. It was developed to provide the necessary information and procedures required to establish and maintain a system to ensure fire safe compliance by homeowners in the Urban-Wildland Interface.

This Guide is designed for use by fire prevention inspectors or persons with responsibility to conduct inspections of structures and improvements in fire prone areas. It is a ready reference that provides legal responsibilities and recommendations on additional fire safe practices.

This Guide was developed as a cooperative effort by the University of California and the Interagency Engineering Working Group comprised of representatives from the United States Forest Service (**USFS**), Bureau of Land Management (**BLM**), California Department of Forestry and Fire Protection (**CDF**), and other interested individuals.

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1. INTRODUCTION

Public Resources Code (PRC) Section 4291 – “Clearance Around Structures” states:

"Any person that owns, leases, controls, operates, or maintains any building or structure in, upon, or adjoining any mountainous area of forest-covered lands, brush-covered lands, or grass-covered lands, or any land which is covered with flammable material, shall at all times do all the following:

- (a) Maintain around and adjacent to such building or structure, a fire break made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This subdivision does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.*
- (b) Maintain around and adjacent to any such building or structure, additional fire protection or fire break made by removing all brush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the director if he finds that, because of extra hazardous conditions, a fuel break of only 30 feet from such building or structure is not sufficient to provide reasonable fire and life safety. Grass and other vegetation located more than 30 feet and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.*
- (c) Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.*
- (d) Maintain any tree adjacent to or overhanging any building free of dead or dying wood.*
- (e) Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.*
- (f) Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.*
- (g) The director may adopt regulations exempting structures with exteriors constructed entirely of nonflammable materials, or conditioned upon the contents and composition of same, he may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding said structures.*

No such exemption or variance shall apply unless and until the occupant thereof, files with the department, in such form as the director shall prescribe a written consent to the inspection of the interior and contents of such structure to ascertain whether the provisions hereof and the regulations adopted hereunder are complied with at all times."

This law was enacted to prevent fire that originates in structures or on premises to spread into forested areas. It was also created to minimize the chances of a forest fire entering into populated areas and destroying improved property and endangering human life. The history of damaging fires has shown the most devastating danger is the risk of fire originating in the wildland and transmitting itself into improved areas. Most statutory hazard reduction requirements and other hazard reduction measures are based upon this concept. However, the risk of wildfire originating on or about structures and their premises is great, and also causes historically damaging fires. The statutory hazard reduction requirements, and other hazard and risk measures, also mitigate the occurrence of structure and premise wildfire ignitions. PRC 4291 does not apply to a specific jurisdiction, but does apply to specific fuel conditions which are identified in the opening paragraph.

2. PROPERTY FIRE PREVENTION INSPECTIONS

2.1 Fire Prevention Inspections

The goal of the fire prevention program is to educate homeowners of measures to prevent the ignition and spread of unwanted human-caused fires. Emphasis should be placed on loss reduction and prevention of large and damaging fires and to provide firefighter safety. One of the necessary tools utilized to accomplish this goal is the **structural fire prevention** inspection. Inspections are a fire prevention engineering activity. Coordinated with other ignition management activities, the inspections are aimed at eliminating or reducing fire hazards and risks by changing the environment through removing or reducing the heat source, modifying or reducing the fuels, and modifying the act or omission, allowing the heat source to contact the ignitable fuels.

2.2 Authority

Authority for California's fire protection agencies to enforce state forest and fire laws is contained in **PRC 4119**. Agency personnel may inspect all properties, except the interior of dwellings, subject to the state forest and fire laws, for the purpose of ascertaining compliance with such laws. USFS personnel that are allowed to do routine inspections for the reduction of fire hazards around buildings as described under PRC 4291 must be designed, in writing, by the Director of CDF. This designation allows certain Forest Service employees to act as an authorized agent for CDF to do routine fire inspections as specified in the Four-Party Cooperative Fire Protection Agreement. If a violation of state law is found, Forest Service employees should contact their local CDF office and Forest Service Law Enforcement Officer.

2.3 Guidelines

Success depends on all personnel, including fire prevention, fire control, and resource management staff. All contacts should be handled so citizens will understand and participate in fire prevention efforts. Citizen participation will lead to reductions in total wildfire costs and losses. To the extent resources are available, local inspection programs should concentrate on areas that have the greatest potential for large and damaging fires with the accompanying loss of life and property.

All personnel involved in inspection activities should have a badge, name plate, and the proper shoulder patch to facilitate proper identification. Unit fire prevention plans should contain local inspection policy and procedures, including minimum training requirements for fire prevention inspectors.

All inspections conducted for the purpose of ascertaining compliance with state forest and fire laws will be recorded on the Interagency Fire Hazard Inspection Notice (LE-38a [USFS R5-5100-209] – **Appendix B**) to provide for: uniform law enforcement, a record for timely follow-up, public education, standardized written notice, and documentation of inspection activity level for program effectiveness and direction.

2.4 Liability

If fire law violations are observed, or significant hazards or risks are evident, the violations should be recorded on an appropriate inspection form. Corrective information, such as handout material, should be provided to the occupant to facilitate correction and compliance.

The occupants should understand that they are responsible for any fire that escapes their control or property. Explain that if a fire should start on their property, because of certain hazards, and spread to a neighbor's property, the neighbor may have civil recourse for damages through the courts. In addition, the wildland fire agency may recover suppression costs and the occupants may face criminal charges.

2.5 Interior Structure Inspection

CDF, USFS, and BLM may not inspect the interior of a structure unless specifically authorized under PRC 4291. Local fire agencies may have the authority and should be encouraged to inspect single-family structure interiors upon request.

2.6 Mechanical Equipment

If mechanical equipment is present, follow the suggested inspection procedures and state law requirements found in the Interagency "*Industrial Operations Fire Prevention Field Guide.*"

3. INSPECTOR QUALIFICATIONS

Below are some qualities of a good fire prevention inspector. Of primary importance is personal appearance. The inspector should:

- ✓ Be neat.
- ✓ Be in proper uniform.
- ✓ Be well mannered.
- ✓ Be dependable.
- ✓ Have the ability to spot unusual or dangerous conditions, and foresee the creation of dangerous situations.
- ✓ Be able to size-up people quickly and correctly.
- ✓ Have personal initiative, be able to plan assignments and carry out work without direct supervision.
- ✓ Have a keen interest in the job and a sense of responsibility toward the public.
- ✓ Possess self-confidence - be firm, fair and friendly.
- ✓ Be alert to new ideas.
- ✓ Become familiar with agency policies.
- ✓ Be tactful in pointing out hazards and criticizing situations.
- ✓ Have the fortitude and perseverance to see the job through.
- ✓ Know the forest and fire laws thoroughly.
- ✓ Know the inspection area.

Inspectors must keep three things in mind. They:

1. Must use their abilities to size-up conditions or operations where a probable fire may result from hazards and risks coming together.
2. Are reducing fire occurrence by obtaining compliance with the law.
3. Are providing a valuable service to the public by informing and educating them in techniques to protect themselves and their property from wildland fires.

3.1 Tools of the Inspector

Below are tools and materials that will help the inspector do a thorough inspection.

- A map of the area to be inspected; with all known buildings identified.
- Inspection forms and notebook. Notes should be taken of observed hazards and risks during tour of inspection. Sketches, photos, or maps may also be an aid to future inspections or firefighting operations.
- Red Tags, spark arrester stickers, and other notification systems.
- Flashlight – which may assist in checking for certain hazards.
- Spark Arrester Guide.
- Copy of applicable laws and ordinances.
- Camera – Photographs of violations where compliance is not expected are desirable both for possible legal action and for information and education purposes.
- Prior records where previous inspections have been made should be studied before additional inspections are made.
- Measuring tape to determine adequate clearances, etc.

All inspections should end with providing the homeowner with a handout relating to firewise practices for future reference.

4. INSPECTOR TRAINING

Unit fire prevention plans should list the minimum training required for new fire inspectors. The minimums for inspectors conducting property inspections in the state responsibility area (SRA) should include at least:

1. Orientation
 - a. Property Inspection Guide
 - b. Local/regional/agency policy
2. Minimum Qualifications
 - a. Local requirements
3. Forest and Fire Laws
 - a. Excerpts from State and Federal Laws ([Appendix C](#))
 - b. Detailed instruction on clearance requirements
4. Local Regulations
 - a. Air Pollution Control District (APCD) references
 - b. Unit burn permit requirements
 - c. Weed abatement ordinances
5. Fuel Management Techniques for Homeowners
 - a. Available educational handouts for distribution.
6. Property Inspections
 - a. Defensible Space Concept
 - b. Fuel Management for Homeowners
 - c. Access for Emergency Equipment
 - d. Vegetation Management
 - e. Firewise Construction
 - f. Fire Sources
 - g. Emergency Preparedness
7. Documenting the Inspection
 - a. Legal requirement
 - b. State, regional, local requirements
 - c. Interagency Fire Hazard Inspection Notice (LE 38a – [Appendix B](#))
8. Follow-Up Inspections

5. PRE-INSPECTION PROGRAM

A pre-inspection program can improve compliance, foster good public relations with homeowners, reduce law enforcement action and reduce overall staffing and cost requirements. Pre-inspection activities include media notification of potential inspectees, mail-out information, homeowner self-inspection mail-outs and homeowner confirmation of compliance with codes. Consider the following:

- Time of year (emphasize usually during spring months).
- Large numbers of absentee ownership, i.e., summer homes.
- Limited availability of staff, including fire crews.
- Adds emphasis to high and critical fire hazard severity areas.

5.1 Advance Notice

Advance notice (letters/postcards and media messages) used in combination with inspections produces the most effective results for the amount of time and work invested. The advance notice (letter/postcard) should contain the following:

- The necessity of fire hazard reduction.
- Notice that the department will be contacting the property holder to make a fire prevention inspection and the approximate date.
- What the inspection will consist of.
- The measures necessary for the owner to complete in order to adequately reduce the fire hazards. This can be keyed to an enclosed Fire Law Excerpts pamphlet or other attachment.
- Agency contact, address and phone number for more information.

6. CONDUCTING THE INSPECTION

6.1 The Inspection Procedure

The inspection for clearance around structures requires the use of some special techniques. However, there are also basic techniques that can be used for most statutory fire prevention inspections.

6.2 Time of Day

The time of day that premise inspections are conducted will vary with the type of premises. Any time after 8:00 a.m. may be fine for inspections of business establishments or recreational camp inspections. Inspection of dwellings, both permanent and seasonal, usually requires the inspection to be made after 10:00 a.m. If inspections are conducted before this time, the inspector may encounter some resistance or ill feeling especially by summer homeowners who usually like to sleep late. The same will apply to rural-dwelling occupants on weekends.

6.3 Approaching the Property

When driving onto the property to be inspected, give attention to the general surrounding of the buildings and their exposures to other buildings. Also, observe the general construction, type, occupancy, and general condition of the buildings. These observations will be of assistance during the inspection and will be of value should a fire occur or threaten the property.

Approach:

- Drive up slowly.
- Leave gates as found.
- Avoid raising dust.

For Personal Safety:

- Note threatening signs.
- Evidence of dogs.
- Evidence of illegal activity.

Observe:

- The grade/condition of the **road** and **accessibility** of approach from the standpoint of hazard reduction and fire protection.
- The general surroundings of buildings and exposures to other structures and vegetation.
- The structures, mechanical equipment, etc., in relation to their use and exposure to hazardous fuels.

6.4 Initial Contact with Occupant

The inspector's first duty is to make contact with the property owner, or whoever is in charge of the premises. The inspector should:

- Inspector should be in official vehicle and uniform.
- Introduce him/herself and show identification.

- Establish communications, avoiding technical or slang language.
- Explain the purpose of the contact and present the idea that the inspection will help protect the property from wildfire.
- Create the idea you are there to help.
- Rather than immediately jumping into a discussion of fire prevention, try a few "icebreakers." This will put the contact on a friendlier basis.
- Obtain permission to inspect. Request that someone accompany the inspector. If permission to inspect is refused, withdraw as cordially as possible and immediately notify your supervisor.
- Offer to return at a later date if the present time is not appropriate or causes inconvenience.
- If resident is uncooperative, leave the property and notify your supervisor.

6.5 Understanding Fire Behavior

Provide the homeowner with a brief understanding of fire behavior. There are three factors that influence the way fire behaves:

Fuel

- How much fuel is around the home?
- Vegetation dead or alive is fuel, as is the house and deck.
- Trees and home – heavy fuels burn longer.
- Grass and shrubs – light/flashy.

Topography

- Fire travels fast when it is climbing a hill.
- Saddles in a ridge act like a chimney. Homes built here will take a wildfire full force directed at the homeowner's front door.

Wind

- Wind provides fire with more oxygen making flames more intense.
- In a firestorm, flames are so intense the fire makes its own wind.
- Burning embers will be carried in the wind and can easily land on the homeowner's property or roof.

7. DEFENSIBLE SPACE CONCEPT

Defensible space is the area within the perimeter of a parcel, development, neighborhood and community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or escaping structure fire.

Each and every resident and wildland user must understand the steps necessary to act in a fire-safe manner. Residents must accept the responsibility of self-protection by implementing the recommendations. Established and maintained **emergency vehicle access**, **emergency water reserves**, **street names** and **building identification**, and **fuel modification** measures characterize the defensible area. The CDF provides guidance to local jurisdictions, agencies, professionals and the public in implementing these measures.

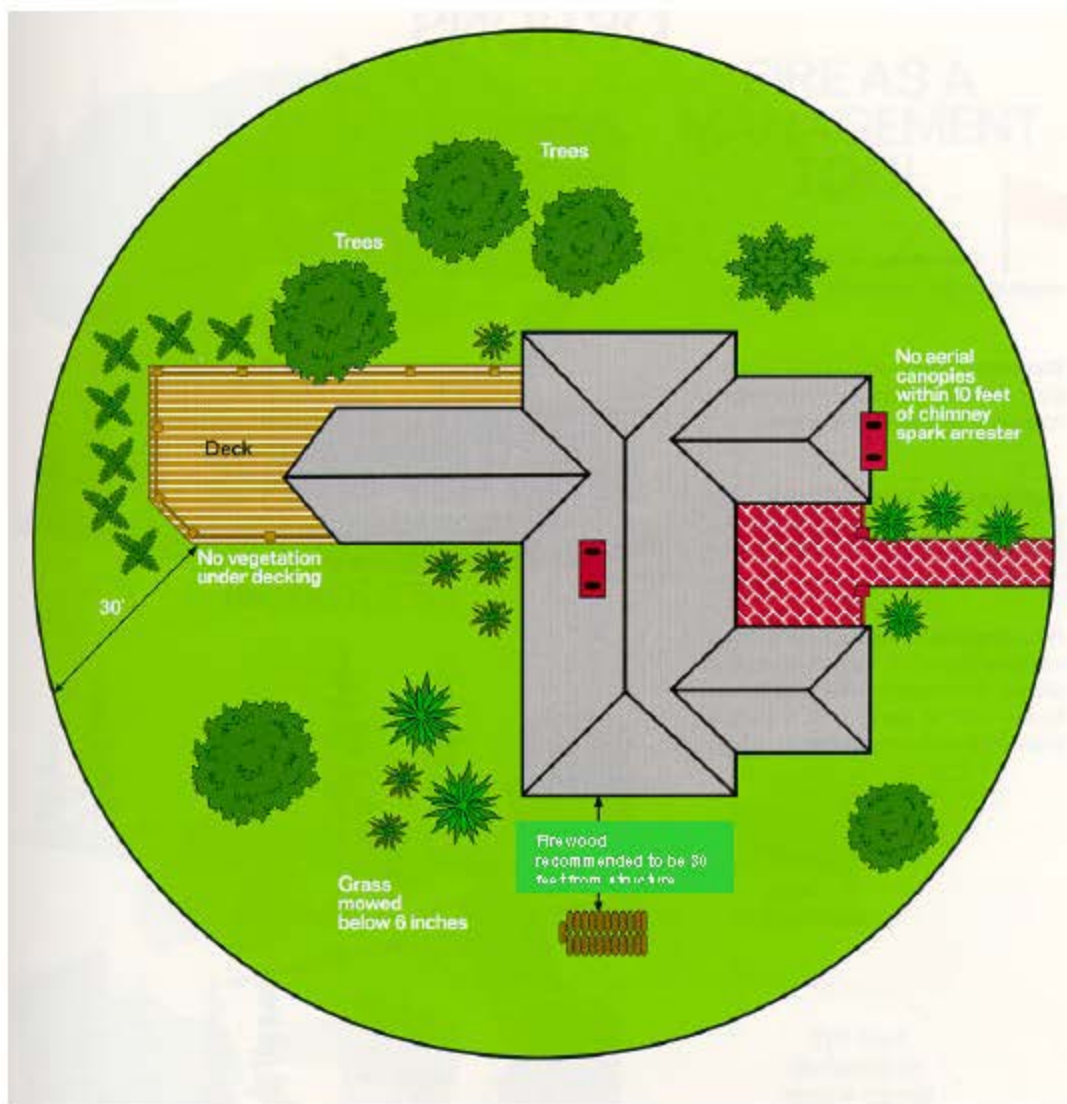


Figure 7.1.
Defensible Space Concept

8. FUEL MANAGEMENT FOR HOMEOWNERS

If homeowners practice a firewise style of living, homes and trees can survive a wildfire. The key to this is fuel reduction. If flammability can be managed, firefighters may have a chance to protect the homes and wildland. This is the key concept of defensible space and why California enacted [PRC 4291](#). There are three methods that can assist homeowners in making their property more fire safe. They are Fuel Reduction, Total Fuel Removal, or Type Conversion.

8.1 Fuel Reduction

Fuel reduction, the partial removal of plants, can be accomplished in two ways. One is the removing of highly flammable species and saving the more fire resistive ones, which are then cleaned of dead material, thinned and pruned to reduce fuel volume. The alternative is removing a portion of all the plants to accomplish fuel reduction. Since there is less vegetation to burn, critical factors (i.e., flame length, fire intensity, and rate of fire spread) are reduced.

8.2 Fuel Removal

The requirement of fuel removal must be balanced with the need to prevent soil erosion, which is a threat every rainy season, especially on steep or erosive soils.

8.3 Type Conversion

This is actually a combination of methods: removing highly flammable plants and then replacing them with lower growing, less flammable species. The lower the height of the plant, the lower the height of the flame when it burns. This strategy is useful in areas adjacent to homes or in fuel breaks in communities.

Foresters refer to plants that are low growing and woody as low fuel volume plants. These plants are an excellent substitute for hazardous vegetation. Homeowners should position low fuel volume plants adjacent to the structures where the potential wildfire problem is most critical.

The type of vegetation and topography of an area determine the degree of needed management. Homeowners living next to highly flammable fuels often remove and replace them with lush green lawns and low fuel volume plants. Specimen trees or shrubs may be kept as long as this vegetation would not readily transmit a fire from native growth to structures. Periodic maintenance on these trees and shrubs provides adequate fire safety.

Each region of the country has different climates and soils that dictate vegetation management strategies. You will need to qualify choices for your area. Some landscape professionals as well as state and federal agencies have plant lists for specific regions or locales. The fire service should monitor these recommendations and suggest more resistive plants whenever necessary. A well thought-out plant list is important. Homeowners and developers may turn to the fire service for professional advice. The University of California Forest Products Laboratory has a listing of fire resistive vegetation available on their website, <http://www.prefire.ucfpl.ucop.edu/>.

9. ACCESS FOR EMERGENCY EQUIPMENT

9.1 Access Routes

Each home should have at least one entrance and one different exit for uninhibited access by emergency personnel and equipment (California Code of Regulations (CCR) 1273).



Photograph 9.1.
Inappropriate Access Route

9.2 Road and Address Visibility

Each home needs a clearly marked address, which can be easily seen from either direction on the traveled roadway ([CCR 1274](#)). Homeowners should check on county ordinances to ensure they have the correct size.



Photograph 9.2.
Address

9.3 Dead End Roads

Dead end roads that end in cul-de-sacs should have a minimum turnaround capable of accommodating emergency fire equipment AND private traffic ([CCR 1273.09](#)).



**Photograph 9.3.
Turnaround**

9.4 Bridges

Bridges leading in and out of the residence or community should be capable of handling emergency response vehicles ([CCR 1273.07a](#)).

9.5 Emergency Evacuation Routes

Plan emergency evacuation routes for you and your family before a wildland fire occurs.

10. VEGETATION MANAGEMENT

10.1 Vegetation Clearance Around the Structure

The clearance of flammable vegetation around buildings has proven to be one of the most effective factors in surviving wildfire. It provides for defensible space, increased safety and working room for firefighters, reduced chance of direct flame contact, and reduced intensity of radiated heat from the approaching wildfire.

The 30-foot clearance should include:

- Well irrigated grass, which is an excellent firebreak;
- Removal of downed and woody litter;
- Choosing low-growing plants spaced apart so they do not touch;
- Not placing plants directly against the home as they act as a wick.

10.2 Vegetation Clearance 30-100' Plus

30-100 feet of clearance may be required because of extra-hazardous conditions (PRC 4291).

Within 30 feet of structure and beyond, up to 100 feet or more, provide a buffer from wildfire by thinning vegetation. Homes on slopes can be especially vulnerable. By limiting the vegetation, the home has a good chance to survive a wildfire. Get rid of ladder fuels by performing the following measures:

- Prune branches at least 15 feet up.
- Trees should be thinned so crowns do not touch.
- Break up continuous patches of brush. Leave a few scattered on the property for erosion control and aesthetics.
- Be sure to remove all dead brush, dead and down logs, and materials that could contribute to a "spotting bed," a location where an ember could land and provide a fuel source to start a wildfire.



Photograph 10.1.
House Showing Defensible Space

10.3 Community Fuel Breaks

A fuel break is recommended around all dwellings for increased protection over and above that level of protection provided by clearance only (**PRC 4290**).

10.4 Characteristics of Fire Resistant Vegetation

All plants will burn under extreme fire weather conditions such as drought. However, plants burn at different intensities and rates of consumption. Fire resistant plants burn with relatively low intensity, slow rates of spread, and with short flame lengths. The University of California Forest Products Laboratory has a listing of fire resistant vegetation available on their website, <http://www.prefire.ucfpl.ucop.edu/>. The following are characteristics of fire resistant vegetation:

- Growth with little or no accumulation of dead vegetation (either on the ground or standing upright)
- Non-resinous plants (willow, poplar or tulip trees)
- Low volume of total vegetation (for example, grass area as opposed to a forest of shrub-covered land)
- Plants with high live fuel moisture (plants that contain a large amount of water in comparison to their dry weight)
- Drought tolerant plants (deeply rooted plants with thick heavy leaves)

- Stands without ladder fuels (plants without small fine branches and limbs between the ground and the canopy of overtopping shrubs and trees)
- Plants requiring little maintenance (slow growing plants which, when maintained require little care)
- Plants with woody stems and branches that require prolonged heating to ignite.

11. FIREWISE CONSTRUCTION

11.1 Roofs

While inspecting the roof, consider the following:

- Free of leaves, needles, and other dead vegetation?
- Type, construction, condition, overhead wires?
- Height and condition of surrounding buildings (exposures)?
- Chimney screens and clearance?
- Sprinkler system-tanks, valves, and pressure?
- Drainage gutters clean?
- Dead wood removed from overhanging trees?

11.1a Clean Roof Surfaces and Gutters

Clean regularly to avoid accumulation of flammable materials ([PRC 4291](#)).



Photograph 11.1.
A Clean, Well-Maintained Class A Roof

11.1b Remove Limbs

Remove the portion of any tree that extends within 10 feet of the outlet of any chimney or stovepipe (PRC 4291).

11.1c Spark Arresters

Provide and maintain a screen over the outlet of every chimney or stovepipe. The screen should be constructed of nonflammable material and have openings of not more than 1/2" (PRC 4291).



**Photograph 11.2.
Chimney/Stovepipes with Spark Arresters**

11.1d Noncombustible Construction Material

The roof and the exterior structure of all dwellings should be constructed of noncombustible or fire resistant materials such as asphalt roofing shingles, tile or slate, brick or stone, aluminum, or sheet iron.



Photograph 11.3.
Noncombustible Roof

11.1e Fire Retardant Chemicals

Fire retardant chemicals should be used to treat highly combustible materials such as wood siding, cedar shakes, and exterior wood paneling. These treatments should be reapplied per the manufacturer's instructions to maintain their effectiveness over time.

11.1f Fire Ratings for Roofs

Pursuant to [HSC 13132.7](#), fire retardant roofing is now required in the entire state of California for all new structures and all existing structures for any repair or replacement. Additionally, if 50% or more of a roof covering is replaced within any one-year period, the entire roof covering shall be replaced with fire retardant roofing as required by state and/or local regulations.

Test methods have been developed to evaluate the fire hazards of roof coverings. NFPA 256, *Methods of Fire Tests of Roof Coverings*, describes the appropriate procedures. The test evaluates the flammability of the roof covering, the protection it provides to a combustible roof deck, and the potential for producing flaming brands. Roof materials are classified as Class A, Class B, and Class C. To receive one of the classifications, the roof covering is given a series of fire tests of varying degree of severity. After all roof-covering tests have been conducted, roof coverings are classified based upon test results:

- Class A covering is one that is effective against a severe fire exposure, affords a high degree of fire protection to the roof deck, does not slip from position, and does not present a flying brand hazard.

This type of roof covering is required in all SRA and LRA areas classified as Very High fire hazard severity areas.

- A Class B roof covering is one that is effective against a moderate fire exposure, affords a moderate degree of fire protection to the roof deck, does not slip from position, and does not present a flying brand hazard. This type of roof covering is required in all SRA areas rated as Moderate fire hazard severity areas.
- A Class C covering is effective against light test exposure, provides a light degree of fire protection to the roof deck, does not slip from position, and does not present a flying brand hazard. This type of roof covering contains the lowest degree of fire resistance allowed in the state of California.

The specific definition of each roofing classification is dependent upon the roofing material, roofing support construction and sheathing. With a given surface material, the classification may change, depending on whether the sheathing is solid (plywood) or lath, and whether the underlay material is foil, tar paper or felt (different weights available). The Class A rating provides the most fire resistive characteristics.

11.2 Walls

Educate homeowners on the various types of siding available—nonflammable material for exterior walls is preferred. Some siding such as vinyl will soften and melt even under mild, radiant heat conditions. Materials such as stucco and masonry stand up better to heat and fire exposure. Wood walls are the most dangerous so it is important homeowners pay close attention to managing their vegetation around the structure.

11.3 Windows

Regular plate glass windows can thermally fracture due to heat from nearby fire even though the heat may not be enough to ignite the home's exterior wood. Advise homeowners that tempered glass or double pane windows tend to fare better during wildfires. Advise on the potential for plastic skylights to melt under intense heat.

11.4 Vents and Eaves

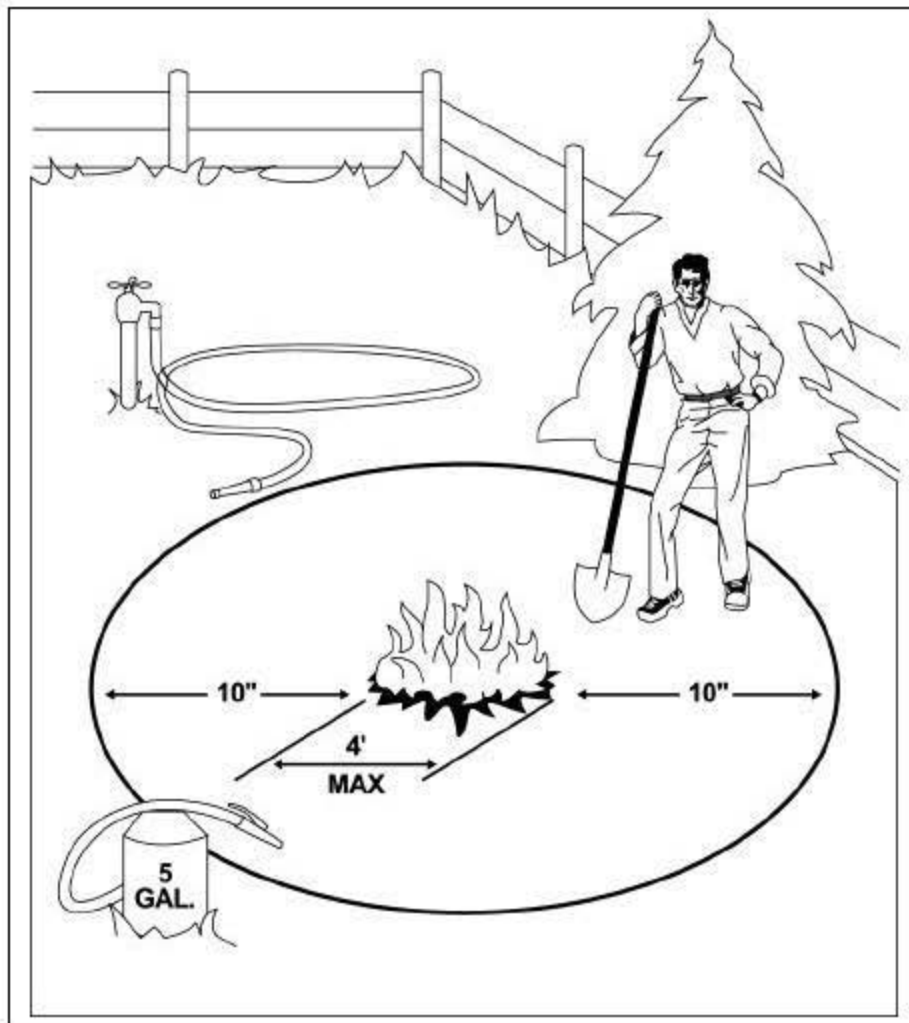
By enclosing your eaves you can prevent another method of flame entry and spread. Cover all vents with ¼ inch wire mesh screen to prevent sparks from being drawn into your home by air currents.

12. FIRE SOURCES

12.1 Debris Burning Regulations

Obtain the required permit prior to any burning on your property and abide by the terms of the burning permit (PRC 4423 and 4433).

Always cut a firebreak between recreational fires on your property and the adjacent dry forest fuels, 10 feet recommended (PRC 4427a).



Debris Burn Pile
Figure 12.1.

12.1a Permit Required

Make sure the property owner or the person in control of the property has a valid permit prior to any type of burning activity. A permit issued by CDF will not be valid for any day on which burning is prohibited by the local Air Pollution Control Board. Burning permits are required under PRC 4423.

12.1b Local Laws

Check local laws on burning of debris. Some communities allow burning only during specified hours of the day; others forbid it entirely. Check the local laws on specific types of material, which can legally be burned. In many cases, outside burning is limited to natural vegetation or untreated lumber. **DO NOT BURN TIRES, TAR PAPER OR PESTICIDE CONTAINERS.**

12.1c Check the Weather

Do not burn on hot, dry, or windy days. Even though it may be a legal burn day, use common sense.

12.1d Debris Burning

Debris to be burned should be in 4' x 4' piles, in a cleared area, away from overhead branches, with an adult in attendance at all times - consider the alternatives. Sometimes leaves, grass, and stubble may be of more value if they are not burned!

Incinerators should be in a cleared distance. [PRC 4446](#) states that the following minimum requirements shall apply:

- The area within 10 feet of the exterior of the incinerator is maintained free and clear of all flammable material and vegetation.
- A screen constructed of a nonflammable material, with no greater than ¼ inch mesh, or metal doors, close or cover each opening in the exterior of an incinerator to prevent the escape of flames, sparks, ashes or other burning material which might cause an uncontrolled fire.
- A permit is obtained prior to burning for the use of the incinerator pursuant to PRC 4423 and all other applicable provisions of law.

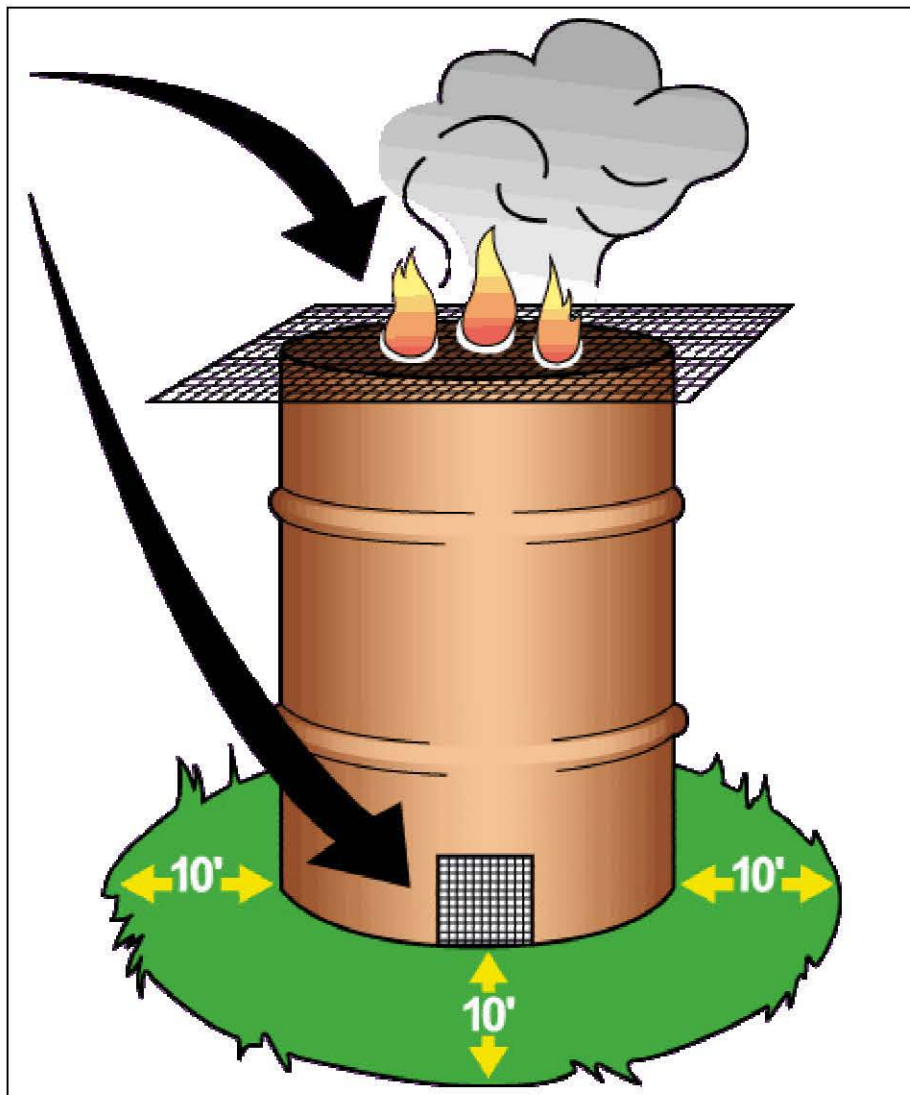


Figure 12.2.
Requirements for Incinerator

12.2 Campfire Safety

Campfire permits are not required for homeowners on their own property. Homeowners should practice fire safety though, as they are liable if a fire escapes.

- ✓ Always clear at least 5 feet in all directions around the fire pit.
- ✓ Always completely extinguish the fire before departing ([PRC 4432](#)).
 - Drown the fire with water while mixing the ashes and embers with soil.
 - Feel the ashes to make sure they are out.

12.3 Disposal of Ashes

Be especially careful when cooking outdoors. Charcoal briquettes and fireplace ashes should be extinguished by dumping into a metal pail and soaking with water. Charcoal briquettes can hold heat 24 hours if left unextinguished.

12.4 Gasoline Lanterns, Stoves and Heaters

Gasoline lanterns, stoves and heaters should be allowed to cool off prior to filling. Then place them on the ground in a cleared area and fill with the proper fuel.

12.5 Gasoline Storage

Store all flammable liquids in approved safety containers.

12.6 Liquefied Petroleum Gas (LPG)

LPG tanks (propane and butane) should be located at least 30 feet from any structure and surrounded with 10 feet of clearance.

12.7 Firewood Storage

Do not stack flammable materials, such as firewood, next to or against structures. Stack and cover woodpiles a recommended distance of at least 30 feet from all structures and clear away flammable vegetation within 10 feet of woodpiles.



Photograph 12.3.
Improper Placement of Firewood

12.8 Exhaust System Requirements

Be sure legal spark arresters are attached permanently to all internal combustion engines which could be operated off the road near flammable dry vegetation. Examples of internal combustion engines requiring spark arresters would be: lawnmowers, chainsaws, generators, motorcycles, off-highway vehicles, agricultural equipment, and many types of construction equipment ([PRC 4442](#)).

Consult the manufacturers guide for proper maintenance procedures and intervals. If it is not known if the spark arrester is the proper type, consult the spark arrester guide at the local fire prevention office.

Advise homeowners on the dangers of metal cutting blades and exhaust systems on their lawnmowers and weed eaters. Metal cutting blades on lawnmowers are a hazard. On hot, low-humidity, summer afternoons, if the metal blades strike rocks while mowing, the sparks will ignite the dry grass. Grass cutting activities utilizing mowers with metal cutting blades should be confined to the morning hours.

12.9 Welding Safety

Welding should be done in an area with ten feet of clearance of all flammable vegetation and the appropriate firefighting tools--round point shovel with an overall length not less than 46" and one backpack pump water-type fire extinguisher ([PRC 4427](#)).

13. BE PREPARED IN CASE OF WILDFIRE

13.1 Water Supply

Have an adequate or reliable water supply available in case of wildfires. For example, storage tanks, swimming pool, creeks or lakes can be utilized quickly with preplanning ([CCR 1275](#)).



**Photograph 13.1.
Alternate Water Supply**

13.2 Portable Water Pumps

Have a portable gasoline-powered water pump available with suction hose and enough fire hose to effectively reach around structures.

13.3 Swimming Pools

These are excellent sources of water for fire protection, when access is provided for emergency equipment to utilize the water.



Photograph 13.2.
Swimming Pool

13.4 Garden Hoses

Garden hose outlets should be located on the exterior of all dwellings with enough hose available to protect all sides of the dwelling and its roof.

13.5 Fire Tools

Have a cache of fire tools readily available including: ladder, extra garden hose, shovel, rake, buckets, etc.

13.6 Extra Protection

Pre-cut plywood window and sliding glass door coverings can provide increased protection. Nail them in place when a wildfire threatens.

13.7 Know the Danger Signs

- ✓ Prolonged dry weather.
- ✓ Plants and grass drying out.
- ✓ Cold weather that may speed up drying of vegetation.
- ✓ Drought year – limited rainfall and snow pack.
- ✓ Windy conditions.
- ✓ Thunderstorms.

Know what valuables you will take with you in case you are evacuated. Post the list in a visible location as a reference.

14. WHEN WILDFIRE APPROACHES



Photograph 14.1.
Approaching Wildfire

14.1 Close Windows and Doors

Close windows and doors to the house including garage doors and all doors inside the house. Take down drapes and curtains to prevent combustion from radiant heat. Turn on all lights so your house is visible in heavy smoke.

14.2 Water

Charge pre-positioned hose lines for use in combating the fire.

14.3 Wet Roof

If the roof is combustible, wet it down or, if equipped, turn on roof sprinklers.

14.4 Turn Off Gas

Turn off the gas at the meter and the propane at the tank.

14.5 Listen to Radio

Keep the radio tuned to local stations for timely reports on the fire's status and for evacuation directions.

14.6 Safety

If told to evacuate, leave the area as directed. If the fire cannot be stopped and passes over your home before you and your family evacuate, the safest place for your protection is inside the house with all the doors closed.

15. CLOSING THE INSPECTION

15.1 Explaining Hazards and Violations to the Occupant

Explain all hazardous conditions observed by the tour of inspection in a businesslike but friendly manner. Also clearly explain any observed fire law violation. Make an effort to get the occupant involved in the solution for corrective action. Very often the occupant will offer a solution exceeding the terms that the inspector may be preparing to request. If the occupant has an unreasonable solution or is at a loss for a solution, assume the roll of an advisor and offer suggestions. In this manner the inspector can work out a satisfactory and practical solution to the problem. This has definite advantages: the owner/occupant who is allowed to work out the problem is not only going to feel more satisfied but also is quite likely to be proud of the job. Be constantly on guard to make sure that suggestions are both reasonable and practical. The inspector has not completed the inspection responsibility until every known fire hazard and risk observed on the premises has been pointed out to the inspectee.



Photograph 15.1.
Hazardous Conditions

15.2 Documenting the Inspection

Note all fire law violations and observed hazards and risks on the Interagency Fire Hazard Inspection Notice (LE-38a – [Appendix B](#)) and set a reasonable, but definite time limit for compliance. The more critical the fire weather situation, the more urgent compliance becomes. Also record other observed hazards and risks.

15.3 Closeo

15.4 ut with Homeowner

When you and the inspectee have concluded the inspection, it is important to cover the following points:

- Thank the inspectee for his/her time.
- Be sure to leave the owner/occupant the inspectee's copy of the Interagency Fire Hazard Inspection Notice (LE-38a or R5 5100-209).
- The portion of the inspection notice, which describes how to contact you, is important information to leave with the inspectee.
- Provide fire prevention educational handouts for homeowners.
- Are there any questions concerning the inspection you can answer?
- Leave the property slowly.
- Leave the property exactly the way you found it.

15.4 Follow-Up/Reinspection

Reinspection is the next major step to gaining compliance. If the inspector makes a commitment to return at a particular time or date, make every effort to keep the appointment. A follow-up system is absolutely necessary to make premises inspections effective. Frequent reinspections should be made if existing hazards or risks warrant them. They may require only a short visit but will assist in keeping things in good order and at minimum fire risk.

Appendix A

BIBLIOGRAPHY

California Department of Forestry and Fire Protection, *Industrial Operations Fire Prevention Field Guide*, 1999, http://www.cdf.ca.gov/Fire_Marshal/osfm_fguides.html

National Fire Protection Association, *NFPA 256, Standard Methods of Fire Tests of Roof Coverings*, 1998 Edition, www.nfpa.org

University of California, Forest Products Laboratory, *Defensible Space Landscaping in the Urban/Wildland Interface: A Compilation of Fire Performance Ratings of Residential Landscape Plants*, www.prefire.ucfpl.ucop.edu

INTERAGENCY FIRE HAZARD INSPECTION NOTICE

Inspector's Name:
Inspector's Phone #:

Inspection Date: / /

Ranger Unit ID

Batt. No.

Inspector's Title:

<input type="checkbox"/> FC	<input type="checkbox"/> FAE	<input type="checkbox"/> FOR AIDE	<input type="checkbox"/> FOR 2	<input type="checkbox"/> FPA
<input type="checkbox"/> BC	<input type="checkbox"/> FF-1	<input type="checkbox"/> FOR TECH	<input type="checkbox"/> FPS 1	<input type="checkbox"/> Other
<input type="checkbox"/> VIP	<input type="checkbox"/> FF-2	<input type="checkbox"/> FOR 1	<input type="checkbox"/> FPS 2	

Inspection No:

One Two Three

Assessor Parcel:

Book

 -

Page

 -

Parcel

Inspectee:

Name:			
Street No.	Dir.	Street Name	
City	State	Zip Code	Special Address:
Phone Number	Latitude		Longitude

Location of Inspection:

Street No.	Dir.	Street Name	
City			Reinspection Date: / /

Comments:

Comments:

Number Inspected (enter no.):

<input type="text"/>	Structures	<input type="text"/>	Camp Fire	<input type="text"/>	Fire Tools
<input type="text"/>	Mechanical Equipment	<input type="text"/>	Open Burning	<input type="text"/>	Miles
<input type="text"/>	Power Line Poles	<input type="text"/>	Incinerator	<input type="text"/>	Other
<input type="text"/>	Waste Disp. Storage				

Inspected For and Number of Violations (see back):

Violation Code (ex. H&S, CFR)	Section (ex. 4291)	Sub-Section (ex. A, C)	No. of Violations

Special Use Permit Y N

Legal Action: Admin None BIA NF
 Citation Other BLM Other
 Compl Notice M.RES Private

Protection Responsibility: SRA LRA FRA

BIA <input type="checkbox"/>	BLM <input type="checkbox"/>	CDF <input type="checkbox"/>	Contract County <input type="checkbox"/>	USFS <input type="checkbox"/>	Other <input type="checkbox"/>	Violation Reinspection <input type="checkbox"/> Y <input type="checkbox"/> N
						Address Visible <input type="checkbox"/> Y <input type="checkbox"/> N
						Fire Resistive Roof <input type="checkbox"/> Y <input type="checkbox"/> N

Type of Hazard:

Agriculture <input type="checkbox"/>	CampGround <input type="checkbox"/>	Comm. Wood <input type="checkbox"/>	Construction <input type="checkbox"/>		
Dwelling <input type="checkbox"/>	Mill <input type="checkbox"/>	Mineral <input type="checkbox"/>	Mtn. Cabin <input type="checkbox"/>	Org. Camp <input type="checkbox"/>	Power Line <input type="checkbox"/>
Railroad <input type="checkbox"/>	Resort <input type="checkbox"/>	Road <input type="checkbox"/>	Sales/Ops.Area <input type="checkbox"/>	Waste Disposal <input type="checkbox"/>	Other <input type="checkbox"/>

Water Storage

Type of Vegetation

Grass Brush Oak/Woodland Conifer

THIS IS A LEGAL NOTICE OF FIRE HAZARD VIOLATIONS (IF NOTED ABOVE)

EXCERPTS FROM STATE LAWS*

*For full and current text, meaning and proper context of laws and regulations, reference should be made to the applicable codes, manuals, directives, etc.

(PRC) Public Resources Code (H&SC) Health & Safety Code (CCR) California Code of Regulations

STATE LAW LEGAL AUTHORITY

FIRE HAZARD REDUCTION AND EQUIPMENT

CLEARANCES AROUND STRUCTURES

Any person that owns, leases, controls, operates, or maintains any building or structure in, upon, or adjoining any mountainous or forest, brush covered lands, or any land covered with flammable material, shall do all the following:

- (a) Maintain around and adjacent to building or structures a fuelbreak for a distance of not less than 30 feet on each side or to the property line, whichever is nearer. This does not apply to single trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.
- (c) Maintain around and adjacent to any building or structure additional fire protection or firebreak which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the Director, because of extra hazardous conditions. Grass and other vegetation located more than 30 feet from such building or structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.
- (c) Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.
- (d) Maintain any tree adjacent to or overhanging any building free of dead or dying wood.
- (e) Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.
- (f) Provide and maintain at all times a screen over the outlet of every chimney or stovepipe. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size. (PRC 4291)

INCINERATORS

Every person shall exercise reasonable care in the disposal of flammable material so that the material does not cause uncontrolled fire. A person shall not burn any flammable material in any incinerator within any area receiving fire protection by the Director or upon federal lands administered by the United States Department of Agriculture or Department of the Interior, unless the following minimum requirements are complied with:

- (a) The area within 10 feet of the incinerator is maintained clear of all flammable material and vegetation.
- (b) A screen constructed of a nonflammable material, with no greater than 1/2 inch mesh, or metal door, cover each opening in the exterior to prevent the escape of burning material.
- (c) A permit is obtained prior to burning. (PRC 4446)

EQUIPMENT

During any time of the year when burning permits are required in an area, no person shall use or operate any motor, engine boiler, stationary equipment, welding equipment, cutting torch, tar pot, or grinding device which is located on or near any forest, brush, or grass covered land, without doing both of the following:

- (a) Clearing away all flammable material, including snags, around such operation for 10 feet.
- (b) Maintain one serviceable round point shovel and one backpack pump water type fire extinguisher ready for use at the immediate area during the operation.

This section does not apply to portable tools powered by gasoline. (PRC 4427)

No person, except any member of an emergency crew or publicly or privately owned utility service vehicle, shall use or operate any vehicle, machine, tool or equipment powered by an engine operated on hydrocarbon fuels in any industrial operation located on or near any forest, brush, or grass covered land between April 1 and December 1 of any year, or at any other time when ground litter and vegetation will sustain combustion, without providing, for fire fighting purpose only, tools prescribed in this section.

- (a) On any such operation a sealed box of tools shall be located at a point accessible in the event of fire. This toolbox shall contain: one backpack pump type fire extinguisher, two axes, two McLeod fire tools and a sufficient number of shovels so that each employee can be equipped to fight fire.
- (b) One or more chain saws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area, or a full set of timber falling tools shall be located in the fire toolbox.
- (c) Each rail speeder and passenger vehicle shall be equipped with one shovel and one ax, and any other vehicle shall be equipped with one shovel. Each tractor shall be equipped with one shovel. (PRC 4428)

During any time of the year when burning permits are required, a person shall not use or operate any steam-operated engine, machine equipment, mill or industrial plant, located on or near forest or brush covered land, without providing one adequate force or water under pressure equivalent to a pump, and not less than 200 feet of hose not less than one inch in diameter for each steam-operated

engine or equipment. The pump or water pressure shall be capable of applying a minimum of 40 pounds pressure at the nozzle on 200 feet of hose, nozzle to be one-fourth inch or larger in diameter. If two steam-operated engines or equipment are operated within 100 feet of each other, only one engine or equipment need be equipped. (PRC 4430)

- During any time of the year when burning permits are required, no person shall use or operate or cause to be operated any portable tool powered by a gasoline engine on or near any forest, brush, or grass covered land, within 25 feet from any flammable material, without providing at the immediate locations one round point shovel or one fire extinguisher. The Director shall specify the type and size of fire extinguisher necessary. The required fire tools shall at no time be farther than 25 feet from the operation. (PRC 4431)

SPARK ARRESTERS

A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service. (PRC 4442)

- Except as otherwise provided in this section, no person shall use, operate, or allow to be used or operated, any internal combustion engine which uses hydrocarbon fuels on any forest-covered land, brush-covered land, or grass-covered land unless the engine is equipped with a spark arrester maintained in effective working order. Spark arresters affixed to the exhaust system of engines shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

Engines used to provide motive power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code.

Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.

Motor vehicles when being operated in an organized racing or competitive event upon a closed course are not subject to this section if the event is conducted under the auspices of a recognized sanctioning body and by permit issued by the fire protection authority having jurisdiction.

AGRICULTURAL CROP EQUIPMENT

Every person is guilty of a misdemeanor who:

- (a) Sells, offers for sale, leases, or rents to any person any tractor, engine, machine, or truck equipped with an engine operated on hydrocarbon fuels if either:
 - (1) It is specifically designed for use in harvesting or moving grain or hay or for use on land covered with any flammable agricultural crop, unless the exhaust system of such engine is equipped with a spark arrester in effective working order.
 - (2) It is not specifically designed for any of the uses described in paragraph (1) but could be used for such uses, unless such person provides written notice to the purchaser or bailee of criminal liability for operating it without a spark arrester as provided in sub-division (b) unless the engine is equipped with a spark arrester.
- (b) Operates or causes to be operated any tractor, engine, machine, or truck equipped with an internal combustion engine that uses hydrocarbon fuels in harvesting or moving grain or hay, or on land covered with any other flammable agricultural crop, unless the engine is equipped with a spark arrester maintained in effective working order.

Spark arrester is defined in Section 4442 of the Public Resources Code.

Spark arresters attached to the exhaust system of engines shall not be placed or mounted in a manner to allow flames or heat from the exhaust system to ignite flammable material.

Motortrucks, truck tractors, buses and passenger vehicles, except motorcycles, are not subject to the provisions of paragraph (2) of subdivision (a) if the exhaust system is equipped with a muffler as defined in the Vehicle Code. (H&SC 13005)

MULTIPOSITION SMALL ENGINES

- No person shall use, operate, or cause to be operated on any forest, brush, or grass covered land any hand held portable, multiposition, internal combustion engine manufactured after June 30, 1978, unless it is constructed and equipped and maintained for the prevention of fire. (PRC 4443)

Engine, multiposition small engine (Mse.) which must comply with PRC 4443 is defined as any internal combustion engine that normally is hand held when operated by one or more persons, which can and may be operated in any position, including but not limited to (14 CCR 1240).

All Mse. which are manufactured after June 30, 1978, must conform to SAE J335b minimum standards to prevent the ignition of fire in organic fuels consisting of, or developed from forest, brush, or grass vegetation (14 CCR 1241.2).

- All Mse. manufactured prior to July 1, 1978, which do not meet the minimum performance standards in 14 CCR 1241 - 1241.2 shall be equipped with a spark arresting device, installed in, attached to, or constructed as an integral part of the exhaust system, equipped with a woven screen with a maximum opening size of 0.0232 inches and is constructed of 0.013 inches or larger diameter, heat and corrosion resistant wire or has a usable life of 50 hours or more. (14 CCR 1242.1)

POWER LINE RIGHTS-OF-WAY

- Any person that owns, controls, operates, or maintains any electrical transmission or distribution line on any mountainous, or forest, brush, or grass covered land shall maintain around any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or tower. (PRC 4292)
- Any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous, or forest, brush, or grass covered land shall maintain a clearance between all vegetation and all conductors which are carrying electric current:
 - (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.
 - (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet.
 - (c) For any line which is operating at 110,000 or more volts, 10 feet (PRC 4293)

RAILROAD RIGHTS-OF-WAY

- Any person or corporation operating a railroad on forest, brush, or grass covered land shall, if ordered, destroy, remove, or modify so as not to be flammable any vegetation or other flammable material defined by regulation of the Director to be a fire hazard on the railroad right-of-way. (PRC 4296.5)

SOLID WASTE FACILITIES (DUMPS)

A person shall maintain any solid waste facility outside of the exterior boundaries of any city in strict accordance with the terms and conditions prescribed by the following sections:

- Any solid waste facility, for which a person is required, shall be maintained with a clearance of flammables for a minimum distance of 150 feet from the periphery of any exposed flammable solid waste.
 - (a) Any structure, building, or part of any structure or building located within 150 feet of the periphery of any exposed flammable solid waste shall also be maintained with a clearance of flammables for a minimum of 150 feet from the periphery of the structure or building.
 - (b) Sound and living trees may be left standing within the areas required to be cleared of flammables, provided limbs within 10 feet of the ground and all dead limbs are removed and wildfire cannot travel into the tree canopy and the trees do not pose a fire safety threat or prevent fire equipment access to and near the exposed waste.
 - (c) Selected and isolated shrubs may remain within the areas required to be cleared of flammables if all dead material is removed and each shrub is trimmed up so that fire cannot travel through the shrub canopy or pose a fire safety threat. (PRC 4373)
- Any solid waste facility, for which a permit is required, shall be provided with a clearance of flammables for a minimum distance of 30 feet from the periphery of any exposed flammable solid waste.
 - (1) Any structure or building or any part of a structure or building which is located within 30 feet of the periphery of any exposed flammable solid waste shall also be maintained with a clearance of flammables for a minimum distance of 30 feet from the periphery of the structure or building.
 - (2) The fire protection agency may, in writing, require additional minimum flammable clearance provisions not to exceed any of the minimum clearance provisions of Section 4373. A reasonable time for compliance with the additional clearance provisions shall be specified in the written notice. (PRC 4374)

PERMITS FOR BURNING

- A person shall not burn any brush, stumps, logs, fallen timber, fallows, slash, grass, brush, forest, or other flammable material in any area receiving fire protection by the department or upon federal lands administered by the United States Department of Agriculture or Department of the Interior, unless he has a written permit from the department or its duly authorized representative or the authorized federal officer on federal lands administered by the United States Departments of Agriculture or Interior and in strict accordance with the terms of the permit. (PRC 4423)

CAMPFIRES

- A person shall not light, maintain, or use a campfire upon any brush, grass, or forest covered land which is the property of another person unless he first obtains a written permit from the owner, lessee, or agent of the owner or lessee of the property. If campsites have been established and posted for camping, a permit is not necessary. (PRC 4433)

Appendix C

STATUTES AND REGULATIONS

This appendix has been designed to present only those laws and regulations, or portions thereof, which pertain more or less directly to wildland fire prevention on industrial operations. As such, this appendix should only be used as a quick field reference. For full and current text, meaning and proper context of laws and regulations reference should be made to the applicable codes, manuals, directives, etc.

I. STATE LAWS

A. *Health and Safety Code (HSC)*

Section 13108.5 - Buildings in Fire Hazard Severity Zones

The State Fire Marshal shall propose, and the State Building Standards Commission shall adopt, amend, and repeal regulations for openings into the attic areas of buildings in those fire hazard severity zones, including very high fire hazard severity zones, designated by the Director of Forestry and Fire Protection pursuant to Article 9 (commencing with Section 4201) of Chapter I of Part 2 of Division 4 of the Public Resources Code, and in very high fire hazard severity zones designated by a local agency pursuant to Chapter 6.8 (commencing with Section 51175) of Part 1 of Division 1 of Title 5 of the Government Code.

Section 13109 - Inspection Authority; Structural.

The State Fire Marshal, his or her deputies, or his or her salaried assistants, the chief of any city or county fire department or fire protection district and their authorized representatives may enter any building or premises not used for dwelling purposes at any reasonable hour for the purpose of enforcing this chapter. The owner, lessee, manager or operator of any such building or premises shall permit the State Fire Marshal, his or her deputies, his or her salaried assistants and the chief of any city or county fire department or fire protection district and their authorized representatives to enter and inspect them at the time and for the purpose stated in this section.

Section 13132.7 – Roof Replacement

(a) Within a very high fire hazard severity zone designated by the Director of Forestry and Fire Protection pursuant to Article 9 (commencing with Section 4201) of Chapter 1 of Part 2 of Division 4 of the Public Resources Code and within a very high hazard severity zone designated by a local agency pursuant to Chapter 6.8 (commencing with Section 51175) of Part 1 of Division 1 of Title 5 of the Government Code, the entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure, shall be a fire retardant roof covering that is at least class B as defined in the Uniform Building Code, as adopted and amended by the State Building Standards Commission. (b) In all other areas, the entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure, shall be a fire retardant roof covering that is at least class C as defined in the Uniform Building Code, as adopted and amended by the State Building Standards Commission. (c) Notwithstanding subdivision (b), within state responsibility areas classified by the State Board of Forestry and Fire Protection pursuant to Article 3 (commencing with Section 4125) of Chapter 1 of Part 2 of Division 4 of the Public Resources Code, except for those state responsibility areas designated as moderate fire hazard

responsibility zones, the entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure, shall be a fire retardant roof covering that is at least class B as defined in the Uniform Building Code, as adopted and amended by the State Building Standards Commission. (d) (1) Notwithstanding subdivision (a), (b), or (c), within very high fire hazard severity zones designated by the Director of Forestry and Fire Protection pursuant to Article 9 (commencing with Section 4201) of Chapter 1 of Part 2 of Division 4 of the Public Resources Code or by a local agency pursuant to Chapter 6.8 (commencing with Section 51175) of Part 1 of Division 1 of Title 5 of the Government Code, the entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure, shall be a fire retardant roof covering that is at least class A as defined in the Uniform Building Code, as adopted and amended by the State Building Standards Commission. (2) Paragraph (1) does not apply to any jurisdiction containing a very high fire hazard severity zone if the jurisdiction fulfills both of the following requirements: (A) Adopts the model ordinance approved by the State Fire Marshal pursuant to Section 51189 of the Government Code or an ordinance that substantially conforms to the model ordinance of the State Fire Marshal. (B) Transmits, upon adoption, a copy of the ordinance to the State Fire Marshal. (e) The State Building Standards Commission shall incorporate the requirements set forth in subdivisions (a), (b), and (c) by publishing them as an amendment to the California Building Standards Code in accordance with Chapter 4 (commencing with Section 18935) of Part 2.5 of Division 13. (f) Nothing in this section shall limit the authority of a city, county, city and county, or fire protection district in establishing more restrictive requirements, in accordance with current law, than those specified in this section. (g) This section shall not affect the validity of an ordinance, adopted prior to the effective date for the relevant roofing standard specified in subdivisions (a) and (b), by a city, county, city and county, or fire protection district, unless the ordinance mandates a standard that is less stringent than the standards set forth in subdivision (a), in which case the ordinance shall not be valid on or after the effective date for the relevant roofing standard specified in subdivisions (a) and (b). (h) Any qualified historical building or structure as defined in Section 18955 may, on a case-by-case basis, utilize alternative roof constructions as provided by the State Historical Building Code. (i) The installer of the roof covering shall provide certification of the roof covering classification, as provided by the manufacturer or supplier, to the building owner and, when requested, to the agency responsible for enforcement of this part. The installer shall also install the roof covering in accordance with the manufacturer's listing. (j) (1) No wood roofing materials shall be sold in this state unless: (A) On and after January 1, 1997, the materials have passed at least one year of the 10-year natural weathering test. (B) On and after January 1, 1998, the materials have passed at least two years of the 10-year natural weathering test. (C) On and after January 1, 1999, the materials have passed at least three years of the 10-year natural weathering test. (D) On and after January 1, 2000, the materials have passed at least four years of the 10-year natural weathering test. (E) On and after January 1, 2001, the materials have passed at least five years of the 10-year natural weathering test. (2) The 10-year natural weathering test required by this subdivision shall be conducted in accordance with standard 15-2 of the 1994 edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal. (k) The Insurance Commissioner shall accept the use of fire retardant wood roofing material that meets the requirements of this section, used in the partial repair or replacement of non fire retardant wood roofing material, as meeting the requirement in Section 2695.9 of Title 10 of the California Code of Regulations relative to matching replacement items in quality, color, and size.

B. *Public Resources Code (PRC)*

Section 4103.5 - Campfire Defined.

"Campfire" means a fire which is used for cooking, personal warmth, lighting, ceremonial, or aesthetic purposes, including fires contained within outdoor fireplaces and enclosed stoves with flues or chimneys, stoves using jellied, liquid, solid, or gaseous fuels, portable barbecue pits and braziers, or space heating devices which are used outside any structure, mobilehome, or living accommodation mounted on a motor vehicle. "Campfire" does not include portable lanterns designed to emit light resulting from a combustion process.

Section 4119 – Inspection Authority

The department, or its duly authorized agent, shall enforce the state forest and fire laws. The department may inspect all properties, except the interior of dwellings, subject to the state forest and fire laws, for the purpose of ascertaining compliance with such laws.

Section 4202 - Classification of Zones.

The director shall classify lands within state responsibility areas into fire hazard severity zones. Each zone shall embrace relatively homogeneous lands and shall be based on fuel loading, slope, fire weather, and other relevant factors present.

Section 4203 - Designation of Zones and Fire Hazard Ratings.

- (a) The director shall, by regulation, designate fire hazard severity zones and assign to each zone a rating reflecting the degree of severity of fire hazard that is expected to prevail in the zone.
- (b) No designation of a zone and assignment of a rating shall be adopted by the director until the proposed regulation has been transmitted to the board of supervisors of the county in which the zone is located at least 45 days prior to the adoption of the proposed regulation and a public hearing has been held in that county during that 45-day period.

Section 4204 - Review of Zones and Maps.

The director shall periodically review zones designated and rated pursuant to this article and, as necessary, shall revise zones or their ratings or repeal the designation of zones. Any revision of a zone or its rating or any repeal of a zone shall conform to the requirements of Section 4203. In addition, the revision or repeal of a zone may be petitioned pursuant to Sections 11340.6 and 11340.7 of the Government Code.

Section 4205 - Report of Legislative Committees.

The Director of Forestry and Fire Protection shall, not later than December 1, 1995, report to the appropriate committees of the Legislature on the impacts of designating very high fire hazard severity zones pursuant to Article 9 (commencing with Section 4201) of Chapter I of Part 2 of Division 4, and Chapter 6.8 (commencing with Section 51175) of Part I of Division I of Title 5 of the Government Code, including identifying and recommending how to reconcile any disparities between the different mapping programs.

Section 4290 - Adoption of Building Standards within State Responsibility Areas

(a) The board shall adopt regulations implementing minimum fire safety standards related to defensible space which are applicable to state responsibility area lands under the authority of the department. These regulations apply to the perimeters and access to all residential, commercial, and industrial building construction within state responsibility areas approved after January 1, 1991. The board may not adopt building standards, as defined in Section 18909 of the Health and Safety Code, under the authority of this section. As an integral part of fire safety standards, the State Fire Marshal has the authority to adopt regulations for roof coverings and openings into the attic areas of buildings specified in Section 13108.5 of the Health and Safety Code. The regulations apply to the placement of mobile homes as defined by National Fire Protection Association standards. These regulations do not apply where an application for a building permit was filed prior to January 1, 1991, or to parcel or tentative maps or other developments approved prior to January 1, 1991, if the final map for the tentative map is approved within the time prescribed by the local ordinance. The regulations shall include all of the following:

- (1) Road standards for fire equipment access.
- (2) Standards for signs identifying streets, roads, and buildings.
- (3) Minimum private water supply reserves for emergency fire use.
- (4) Fuel breaks and greenbelts.

(b) These regulations do not supersede local regulations which equal or exceed minimum regulations adopted by the state.

Section 4291 - Defensible Space.

Any person that owns, leases, controls, operates, or maintains any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands, or grass-covered lands, or any land which is covered with flammable material, shall at all times do all of the following:

(a) Maintain around and adjacent to such building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This subdivision does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.

(b) Maintain around and adjacent to any such building or structure additional fire protection or firebreak made by removing ail brush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the director if he finds that, because of extra hazardous conditions, a firebreak of only 30 feet around such building or structure is not sufficient to provide reasonable fire safety. Grass and other vegetation located more than 30 feet from such building or structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.

(c) Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.

(d) Maintain any tree adjacent to or overhanging any building free of dead or dying wood.

(e) Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.

(f) Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.

(g) Except as provided in Section 18930 of the Health and Safety Code, the director may adopt regulations exempting structures with exteriors constructed entirely of nonflammable materials, or conditioned upon the contents and composition of same, he may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding said structures.

No such exemption or variance shall apply unless and until the occupant thereof, or if there be no occupant, then the owner thereof, files with the department, in such form as the director shall prescribe, a written consent to the inspection of the interior and contents of such structure to ascertain whether the provisions hereof and the regulations adopted hereunder are complied with at all times.

Section 4291.1 - Defensible Space; Violation.

(a) Notwithstanding Section 4021, a violation of Section 4291 is an infraction punishable by a fine of not less than one hundred dollars (\$100), nor more than five hundred dollars (\$500). If a person is convicted of a second violation of Section 4291 within five years, that person shall be punished by a fine of not less than two hundred fifty dollars (\$250), nor more than five hundred dollars (\$500). If a person is convicted of a third violation of Section 4291 within five years, that person is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars (\$500). If a person is convicted of a third violation of Section 4291 within five years, the department may perform or contract for the performance of work necessary to comply with Section 4291 and may bill the person convicted for the costs incurred, in which case the person convicted, upon payment of those costs, shall not be required to pay the fine. If a person convicted of a violation of Section 4291 is granted probation, the court shall impose as a term or condition of probation, in addition to any other term or condition of probation, that the person pay at least the minimum fine prescribed in this section.

(b) If a person convicted of a violation of Section 4291 produces in court verification prior to imposition of a fine by the court, that the condition resulting in the citation no longer exists, the court may reduce the fine imposed for the violation of Section 4291 to fifty dollars (\$50).

Section 4292 - Electric Power Lines; Fire Hazard Reduction; Exemptions.

Except as otherwise provided in Section 4296, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such pole or tower. This section does not, however, apply to any line which is used exclusively as telephone, telegraph, telephone or telegraph messenger call, fire or alarm line, or other line which is classed as a communication circuit by the Public Utilities Commission. The director or the agency which has primary fire protection responsibility for the protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

Section 4293 - Power Line Clearance Required; Distance.

Except as otherwise provided in Sections 4294 to 4296, inclusive, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such areas, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:

- (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.
- (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet.
- (c) For any line which is operating at 110,000 or more volts, 10 feet.

In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees,

old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard. The director or the agency which has primary responsibility for the fire protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

Section 4294 - Aerial Cable Clearance.

A clearing to obtain line clearance is not required if self-supporting aerial cable is used. Forked trees, leaning trees, and any other growth which may fall across the line and break it shall, however, be removed.

Section 4295 - When Clearance Required; Distance.

A person is not required by Section 4292 or 4293 to maintain any clearing on any land if such person does not have the legal right to maintain such clearing, nor do such sections require any person to enter upon or to damage property which is owned by any other person without the consent of the owner of the property.

Section 4296 - Low Voltage Lines.

Sections 4292 and 4293 do not apply if the transmission or distribution line voltage is 750 volts or less.

Section 4423 - Burning Permits.

A person shall not burn any brush, stumps, logs, fallen timber, fallows, slash, grass-covered land, brush-covered land, forest-covered land, or other flammable material, in any state responsibility area receiving fire protection by the department by contract, or upon federal lands administered by the United States Department of Agriculture or Department of the Interior, unless the person has a written permit from the department or its duly authorized representative or the authorized federal officer on federal lands administered by the United States Department of Agriculture or of the Interior and in strict accordance with the terms of the permit:

(a) At any time in Zone A.

(b) At any time in Zone B between May 1st and the date the director declares, by proclamation, that the hazardous fire conditions have abated for that year, or at any other time in Zone B during any year when the director has declared, by proclamation, that unusual fire hazard conditions exist in the area.

The issuing agency may require the permittee to contact the agency to determine permit suspension status prior to burning.

Section 4427 - Clearing and Tools Required

During any time of the year when burning permits are required in an area pursuant to this article, no person shall use or operate any motor, engine, boiler, stationary equipment, welding equipment, cutting torches, tarpots, or grinding devices from which a spark, fire, or flame may originate, which is located on or near any forest-covered land, brush-covered land, or grass-covered land, without doing both of the following:

(a) First clearing away all flammable material, including snags, from the area around such operation for a distance of 10 feet.

(b) Maintain one serviceable round point shovel with an overall length of not less than forty-six (46) inches and one backpack pump water-type fire extinguisher fully equipped and ready for use at the immediate area during the operation.

This section does not apply to portable powersaws and other portable tools powered by a gasoline-fueled internal combustion engine.

Section 4431 - Portable Gas Powered Tools.

During any time of the year when burning permits are required in an area pursuant to this article, no person shall use or operate or cause to be operated in the area any portable saw, auger, drill, tamper, or other portable tool powered by a gasoline-fueled internal combustion engine on or near any forest-covered land, brush-covered land, or grass-covered land, within 25 feet of any flammable material, without providing and maintaining at the immediate locations of use or operation of the saw or tool, for firefighting purposes one serviceable round point shovel, with an overall length of not less than 46 inches, or one serviceable fire extinguisher. The Director of Forestry and Fire Protection shall by administrative regulation specify the type and size of fire extinguisher necessary to provide at least minimum assurance of controlling fire caused by use of portable power tools under various climatic and fuel conditions. The required fire tools shall at no time be farther from the point of operation of the power saw or tool than 25 feet with unrestricted access for the operator from the point of operation.

Section 4432 - Neglecting a Campfire.

A person shall not leave a campfire, kindled or attended by him, burning or unextinguished unless one of the following requirements is satisfied:

- (a) He leaves some person in attendance.
- (b) The fire is enclosed within a stove, oven, drum, or other nonflammable container, in such manner that the fire cannot escape from the container.

No person shall allow a campfire, kindled or attended by him, to spread after it is built.

Section 4433 - Campfire Permit Required

A person shall not light, maintain, or use a campfire upon any brush-covered land, grass-covered land, or forest-covered land which is the property of another person unless he first obtains a written permit from the owner, lessee, or agent of the owner or lessee of the property.

If, however, campsites and special areas have been established by the property owner and posted as areas for camping, a permit is not necessary.

A written campfire permit duly issued by or under the authority of the United States Forest Service is necessary for use on land under the jurisdiction and control of the United States Forest Service.

Section 4434 - Campfire Escape

The escape of any campfire from the control of any person who is maintaining the campfire is prima facie evidence that such person was negligent in maintaining the campfire.

Section 4442 - Spark Arresters.

(a) Except as otherwise provided in this section, no person shall use, operate, or allow to be used or operated, any internal combustion engine which uses hydrocarbon fuels on any forest-covered land, brush-covered land, or grass-covered land unless the engine is equipped with a spark arrester, as defined in subdivision (c), maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443.

(b) Spark arresters affixed to the exhaust system of engines or vehicles subject to this section shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

(c) A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.

(d) Engines used to provide motive power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code.

(e) Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.

(f) Motor vehicles when being operated in an organized racing or competitive event upon a closed course are not subject to this section if the event is conducted under the auspices of a recognized sanctioning body and by permit issued by the fire protection authority having jurisdiction.

Section 4442.5 - Written Notice.

No person shall sell, offer for sale, lease, or rent to any person any internal combustion engine subject to Section 4442 or 4443, and not subject to Section 13005 of the Health and Safety Code, unless the person provides a written notice to the purchaser or bailee, at the time of sale or at the time of entering into the lease or rental contract, stating that it is a violation of Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrester, as defined in Section 4442, maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443.

Section 4443 - Campfire Escape

No person shall use, operate, or cause to be operated on any forest-covered land, brush-covered land, or grass-covered land any handheld portable, multiposition, internal-combustion engine manufactured after June 30, 1978, which is operated on hydrocarbon fuels, unless it is constructed and equipped and maintained for the prevention of fire.

The board shall, by regulation, specify standards for construction, equipment, and maintenance of such engines for the prevention of fire and shall specify a uniform method of testing to be used by engine and equipment manufacturers, governmental agencies, and equipment users. The regulations shall include specification of exhaust system standards for carbon particle retention or destruction, exposed surface temperature, gas temperature, flammable debris accumulation, durability, and serviceability.

Portable power saw and other portable equipment described in this section which were manufactured prior to July 1, 1978, shall be subject to fire safety design specifications as prescribed by the board.

Section 4446 - Incinerator Permit Required

Every person shall exercise reasonable care in the disposal of flammable material so that the material does not cause the inception of or spread of uncontrolled fire. A person shall not burn any flammable material in any incinerator within any state responsibility area, within any area receiving fire protection by the director by contract, or upon federal lands administered by the United States Department of Agriculture or Department of the Interior, unless all of the following minimum requirements are complied with:

(a) The area within 10 feet of the exterior of the incinerator is maintained free and clear of all flammable material and vegetation.

(b) A screen constructed of a nonflammable material, with no greater than 1/4-inch mesh, or metal doors, close or cover each opening in the exterior of an incinerator to prevent the escape of flames, sparks, ashes, or other burning material which might cause an uncontrolled fire.

(c) A permit is obtained prior to burning for the use of the incinerator pursuant to Section 4423 and all other applicable provisions of law.

This section does not apply to the disposal of flammable material incident to the processing of forest products.

II. STATE REGULATIONS

Title 14, California Code of Regulations (14 CCR)

Section 1270 - SRA Fire Safe Regulations - Title.

These regulations shall be known as the "SRA Fire Safe Regulations," and shall constitute the basic wildland fire protection standards of the California Board of Forestry.

Section 1270.01 - Purpose.

These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and developments in SRA. A local jurisdiction may petition the Board for certification pursuant to Section 1270.03. Where Board certification has not been granted, these regulations shall become effective September 1, 1991. The future design and construction of structures, subdivisions and developments in state responsibility srea (SRA) shall provide for basic emergency access and perimeter wildfire protection measures as specified in the following articles. These measures shall provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification. The fire protection standards which follow shall specify the minimums for such measures.

Section 1270.02 - Scope.

These regulations do not apply to existing structures, roads, streets and private lanes or facilities. These regulations shall apply as appropriate to all construction within SRA approved after January 1, 1991.

Affected activities include but are not limited to:

- (a) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) Section 66412(d).
- (b) application for a building permit for new construction, not relating to an existing structure,
- (c) application for a use permit,
- (d) the siting of manufactured homes (manufactured homes are as defined by the National Fire Protection Association, National Fire Code, Section 501A, Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities, Chapter 1, Section 1-2, Definitions, page 4, 1987 edition and Health and Safety Code Sections 18007, 18008, and 19971).
- (e) road construction, including construction of a road that does not currently exist, or extension of an existing road.

Section 1270.03 - Local Ordinances.

Nothing contained in these regulations shall be considered as abrogating the provisions of any ordinance, rule or regulations of any state or local jurisdiction providing such ordinance, rule, regulation or general plan element is equal to or more stringent than these minimum standards. The Board may certify local ordinances as equaling or exceeding these regulations when they provide the same practical effect.

Section 1270.04 - Provisions for Application of These Regulations

This subchapter shall be applied as follows:

- (a) local jurisdictions shall provide the Director with notice of applications for building permits, tentative parcel maps, tentative maps, and use permits for construction or development within SRA.
- (b) the Director shall review and make fire protection recommendations on applicable construction or development permits or maps provided by the local jurisdiction.
- (c) the local jurisdiction shall ensure that the applicable sections of this subchapter become a condition of approval of any applicable construction or development permit or map.

Section 1270.05 - Inspection Authority.

- (a) Inspection shall be made pursuant to Section 1270.06 by:
 - (1) the Director, or
 - (2) local jurisdictions that have assumed state fire protection responsibility on SRA lands, or
 - (3) local jurisdictions where these regulations have been implemented through that jurisdiction's building permit or subdivision approval process.
- (b) Reports of violations shall be provided to the CDF Ranger Unit headquarters that administers SRA fire protection in that county.

Section 1270.06 - Inspections.

The inspection authority may inspect for compliance with these regulations. When inspections are conducted, they should occur prior to: the issuance of the use permit; certificate of occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or building permit.

Section 1270.07 - Exceptions to Standards.

Upon request by the applicant, exceptions to standards within this subchapter and mitigated practices may be allowed by the inspection authority, where the exception provides the same overall practical effect as these regulations towards providing defensible space.

Section 1270.08 - Requests for Exceptions.

Requests for an exception shall be made in writing to the inspection authority by the applicant or the applicant's authorized representative. The request shall state the specific section(s) for which an exception is requested, material facts supporting the contention of the applicant, the details of the exception or mitigating measure proposed, and a map showing the proposed location and siting of the exception or mitigation measure.

Section 1270.09 - Appeals.

Where an exception is not granted by the inspection authority, the applicant may appeal such denial to the local jurisdiction. The local jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.

Before the local jurisdiction makes a determination on an appeal, the inspection authority shall be consulted and shall provide to that local jurisdiction documentation outlining the effects of the requested exception on wildland fire protection.

If an appeal is granted, the local jurisdiction shall make findings that the decision meets the intent of providing defensible space consistent with these regulations. Such findings shall include a statement of

reasons for the decision. A written copy of these findings shall be provided to the CDF Ranger Unit headquarters that administers SRA fire protection in that county.

Section 1271.00 - Definitions.

Accessory building: Any building used as an accessory to residential, commercial, recreational, industrial, or educational purposes as defined in the California Building Code.

Agriculture: Land used for agricultural purposes as defined in a local jurisdiction's zoning ordinances.

Building: Any structure used or intended for supporting or sheltering any use or occupancy that is defined in the California Building Code. For the purposes of this subchapter, building includes mobile homes and manufactured homes, churches, and day care facilities.

CDF: California Department of Forestry and Fire Protection.

Dead-end road: A road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.

Defensible space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.

Development: As defined in Section 66418.1 of the California Government Code.

Director: Director of the Department of Forestry and Fire Protection or his/her designee.

Driveway: A vehicular access that serves no more than two buildings, with no more than 3 dwelling units on a single parcel, and any number of accessory buildings.

Dwelling unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for not more than one family.

Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions such as recorded historical sites, that provides mitigation of the problem.

Fire valve: see hydrant.

Fuel modification area: An area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.

Greenbelt: A facility or land-use, designed for a use other than fire protection, which will slow or resist the spread of a wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.

Hammerhead/T: A roadway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the road that serves it.

Hydrant: A valved connection on a water supply/storage system, having at least one 2 1/2 inch outlet, with male American National Fire Hose Screw Threads (NH) used to supply fire apparatus and hoses with water.

Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.

Occupancy: The purpose for which a building, or part thereof, is used or intended to be used.

One-way road: A minimum of one traffic lane width designed for traffic flow in one direction only.

Roads, streets, private lanes: Vehicular access to more than one parcel; access to any industrial or commercial occupancy; or vehicular access to a single parcel with more than two buildings or four or more dwelling units.

Roadway: Any surface designed, improved, or ordinarily used for vehicle travel.

Roadway structures: Bridges, culverts, and other appurtenant structures which supplement the roadway bed or shoulders.

Same Practical Effect: As used in this subchapter, means an exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:

- (a) access for emergency wildland fire equipment,
- (b) safe civilian evacuation,
- (c) signing that avoids delays in emergency equipment response,
- (d) available and accessible water to effectively attack wildfire or defend a structure from wildfire, and
- (e) fuel modification sufficient for civilian and fire fighter safety.

Shoulder: Roadbed or surface adjacent to the traffic lane.

State Board of Forestry (SBOF): A nine member board, appointed by the Governor, which is responsible for developing the general forest policy of the state, for determining the guidance policies of the Department of Forestry and Fire Protection, and for representing the state's interest in federal land in California.

State Responsibility Area (SRA): As defined in Public Resources Code Sections 4126-4127; and the California Code of Regulations, title 14, Division 1.5, Chapter 7, Article 1, Sections 1220-1220.5.

Structure: That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Subdivision: As defined in Section 66424 of the Government Code.

Traffic lane: The portion of a roadway that provides a single line of vehicle travel.

Turnaround: A roadway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.

Turnouts: A widening in a roadway to allow vehicles to pass.

Vertical clearance: The minimum specified height of a bridge or overhead projection above the roadway.

Wildfire: As defined in Public Resources Code Sections 4103 and 4104.

Section 1272.00 - Maintenance of Defensible Space Measures.

To ensure continued maintenance of properties in conformance with these standards and measures and to assure continued availability, access, and utilization of the defensible space provided for in these standards during a wildfire, provisions for annual maintenance shall be included in the development plans and/or shall be provided as a condition of the permit, parcel or map approval.

Section 1273.00 - Emergency Access - Intent.

Road and street networks, whether public or private, unless exempted under Section 1270.02(e), shall provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with Sections 1273.00 through 1273.11.

Section 1273.01 - Road Width.

All roads shall be constructed to provide a minimum of two nine-foot traffic lanes providing two-way traffic flow, unless other standards are provided in this article, or additional requirements are mandated by local jurisdictions or local subdivision requirements.

Section 1273.02 - Roadway Surface.

The surface shall provide unobstructed access to conventional drive vehicles, including sedans and fire engines. Surfaces should be established in conformance with local ordinances, and be capable of supporting a 40,000 pound load.

Section 1273.03 - Roadway Grades.

The grade for all roads, streets, private lanes and driveways shall not exceed 16 percent.

Section 1273.04 - Roadway Radius.

- (a) No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50-100 feet radius; 2 feet to those from 100-200 feet.
- (b) The length of vertical curves in roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than 100 feet.

Section 1273.05 - Roadway Turnarounds.

Turnarounds are required on driveways and dead-end roads as specified in this article. The minimum turning radius for a turnaround shall be 40 feet from the center line of the road. If a hammerhead/T is used, the top of the "T" shall be a minimum of 60 feet in length.

Section 1273.06 - Roadway Turnouts.

Turnouts shall be a minimum of 10 feet wide and 30 feet long with a minimum 25 foot taper on each end.

Section 1273.07 - Roadway Structures.

- (a) All driveway, road, street, and private lane roadway structures shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by Vehicle Code Sections 35550, 35750, and 35250.
- (b) Appropriate signing, including but not limited to weight or vertical clearance limitations, one-way road or single land conditions, shall reflect the capability of each bridge.
- (c) A bridge with only one traffic lane may be authorized by the local jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

Section 1273.08 - One-way Roads.

All one-way roads shall be constructed to provide a minimum of one 10-foot traffic lane. The local jurisdiction may approve one-way roads. All one-way roads shall connect to a two-lane roadway at both ends, and shall provide access to an area currently zoned for no more than 10 dwelling units. In no case shall it exceed 2640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each one-way road.

Section 1273.09 - Dead-End Roads.

- (a) The maximum length of a dead-end road, including all dead-end roads accessed from the dead-end road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:
- parcels zoned for less than one acre - 800 feet
 - parcels zoned for 1 acre to 4.99 acres - 1320 feet
 - parcels zoned for 5 acres to 19.99 acres - 2640 feet

- parcels zoned for 20 acres or larger - 5280 feet

All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes, requiring different length limits, the shortest allowable length shall apply.

(b) Where parcels are zoned 5 acres or larger, turnarounds shall be provided at a maximum of 1320 foot intervals.

(c) Each dead-end road shall have a turnaround constructed at its terminus.

Section 1273.10 -Driveways.

All driveways shall provide a minimum 10 foot traffic lane and unobstructed vertical clearance of 15 feet along its entire length.

(a) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.

(b) A turnaround shall be provided at all buildings sites on driveways over 300 feet in length, and shall be within 50 feet of the building.

Section 1273.11 - Gate Entrances.

(a) Gate entrances shall be at least two feet wider than the width of the traffic lane(s) serving that gate.

(b) All gates providing access from a road to a driveway shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that road.

(c) Where a one-way road with a single traffic lane provides access to a gated entrance, a 40 foot turning radius shall be used.

Section 1274.00 - Signing and Building Numbering - Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved roads, street, and buildings shall be designated by names or numbers, posted on signs clearly visible and legible from the roadway. This section shall not restrict the size of letters or numbers appearing on street signs for other purposes.

Section 1274.01 - Size of Letters, Numbers and Symbols for Street and Road Signs

Size of letters, numbers, and symbols for street and road signs shall be a minimum 3 inch letter height, 3/8 inch stroke, reflectorized, contrasting with the background color of the sign.

Section 1274.02 - Visibility and Legibility of Street and Road Signs

Street and road signs shall be visible and legible from both directions of vehicle travel for a distance of at least 100 feet.

Section 1274.03 - Height of Street and Road Signs.

Height of street and road signs shall be uniform county wide, and meet the visibility and legibility standards of this article.

Section 1274.04 - Names and Numbers on Street and Road Signs

Newly constructed or approved public and private roads and streets must be identified by name or number through a consistent county-wide system that provides for sequenced or patterned numbering and/or non-duplicating naming within each county. All signs shall be mounted and oriented in a uniform manner. This section does not require any entity to rename or renumber existing roads or streets, nor shall a roadway providing access only to a single commercial or industrial occupancy require naming or numbering.

Section 1274.05 - Intersecting Roads, Streets and Private Lanes.

Signs required by this article identifying intersecting roads, streets and private lanes shall be placed at the intersection of those roads, streets, and/or private lanes.

Section 1274.06 - Signs Identifying Traffic Access Limitations.

A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end road, one-way road or single lane conditions, shall be placed: (a) at the intersection preceding the traffic access limitation, and (b) no more than 100 feet before such traffic access limitation.

Section 1274.07 - Installation of Road, Street and Private Lane Signs

Road, street and private lane signs required by this article shall be installed prior to final acceptance by the local jurisdiction of road improvements.

Section 1274.08 - Addresses for Buildings

All buildings shall be issued an address by the local jurisdiction which conforms to that jurisdiction's overall address system. Accessory buildings will not be required to have a separate address; however, each dwelling unit within a building shall be separately identified.

Section 1274.09 - Size of Letters, Numbers and Symbols for Addresses.

Size of letters, numbers and symbols for addresses shall be a minimum 3 inch letter height, 3/8 inch stroke, reflectorized, contrasting with the background color of the sign.

Section 1274.10 - Installation, Location and Visibility of Addresses.

- (a) All buildings shall have a permanently posted address, which shall be placed at each driveway entrance and visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter, and the address shall be visible and legible for the road on which the address is located.
- (b) Address signs along on-way roads shall be visible from both the intended direction of travel and the opposite direction.
- (c) Where multiple addresses are required at a single driveway, they shall be mounted on a single post.
- (d) Where a roadway provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest road intersection providing access to that site.

Section 1275.00 - Emergency Water Standards - Intent.

Emergency water for wildfire protection shall be available and accessible in quantities and locations specified in the statute and these regulations, in order to attack a wildfire or defend property from a wildfire.

Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man-made containment structure, as long as the specified quantity is immediately available.

Section 1275.01 - Application.

The provisions of this article shall apply when new parcels are approved by a local jurisdiction. The emergency water system shall be available on-site prior to the completion of road construction, where a community water system is approved, or prior to the completion of building construction, where an individual system is approved.

Section 1275.10 - General Standards.

Water systems that meet or exceed the standards specified in Public Utilities Commission of California (PUC) revised General Order # 103, Adopted June 12, 1956 (Corrected September 7, 1983, Decision 83-09-001), Section VIII Fire Protection Standards and other applicable sections relating to fire protection water delivery systems, static water systems equaling or exceeding the National Fire Protection Association (NFPA) Standard 123 1, "Standard on Water Supplies for Suburban and Rural Fire Fighting," 1989 Edition, or mobile water systems that meet the Insurance Services Office (ISO) Rural Class 8, 2nd Edition 3-80, standard shall be accepted as meeting the requirements of this article. These documents are available at CDF Ranger Unit Headquarters.

Nothing in this article prohibits the combined storage of emergency wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.

Where freeze protection is required by local jurisdictions, such protection measures shall be provided.

Section 1275.15 - Hydrant/Fire Valve.

(a) The hydrant or fire valve shall be 18 inches above grade, 8 feet from flammable vegetation, no closer than 4 feet nor farther than 12 feet from a roadway, and in a location where fire apparatus using it will not block the roadway.

The hydrant serving any building shall:

(1) be not less than 50 feet nor more than 1/2 mile by road from the building it is to serve, and
(2) be located at a turnout or turnaround, along the driveway to that building or along the road that intersects with that driveway.

(b) The hydrant head shall be brass with 2 1/2 inch National Hose male thread with cap for pressure and gravity flow systems and 4 1/2 inch draft systems. Such hydrants shall be wet or dry barrel as required by the delivery system. They shall have suitable crash protection as required by the local jurisdiction.

Section 1275.20 - Signing of Water Sources.

Each hydrant/fire valve or access to water shall be identified as follows:

(a) if located along a driveway, a reflectorized blue marker, with a minimum dimension of 3 inches shall be located on the driveway address sign and mounted on a fire retardant post, or

(b) if located along a street or road,

(1) a reflectorized blue marker, with a minimum dimension of 3 inches, shall be mounted on a fire retardant post. The sign post shall be within 3 feet of said hydrant/fire valve, with the sign no less than 3 feet nor greater than 5 feet above ground, in a horizontal position and visible from the driveway, or

(2) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Section 1276.00 - Fuel Modification Standards - Intent.

To reduce the intensity of a wildfire by reducing the volume and density of flammable vegetation, the strategic siting of fuel modification and greenbelts shall provide

- (1) increased safety for emergency fire equipment and evacuating civilians; and
- (2) a point of attack or defense from a wildfire.

Section 1276.01 - Setback for Structure Defensible Space.

(a) All parcels 1 acre and larger shall provide a minimum 30 foot setback for buildings and accessory buildings from all property lines and/or the center of a road.

(b) For parcels less than 1 acre, local jurisdictions shall provide for the same practical effect.

Section 1276.02 - Disposal of Flammable Vegetation and Fuels.

Disposal, including chipping, burying, burning or removal to a landfill site approved by the local jurisdiction, of flammable vegetation and fuels caused by site development and construction, road and driveway construction, and fuel modification shall be completed prior to completion of road construction or final inspection of a building permit.

Section 1276.03 - Greenbelts.

Subdivisions and other developments, which propose greenbelts as a part of the development plan, shall locate said greenbelts strategically, as a separation between wildland fuels and structures. The locations shall be approved by the inspection authority.

Section 1280 - Fire Hazard Severity Zones

The fire hazard severity zones and the rating reflecting the degree of severity of fire hazard that is expected to prevail in those zones, shall be designated by the Director and delineated on a series of maps on file in the Sacramento Office of the Department of Forestry, 1416 Ninth Street, Room 1653-10. The maps are entitled "Maps of Fire Hazard Severity Zones in the State Responsibility Area of California," dated August 1984.

Section 1295 - Order Format.

An order to destroy, remove or modify vegetation or other flammable material, pursuant to PRC 4296.5 shall be made substantially in the following format: (Name, Address and Telephone Number of Director's Agent or Agency having Primary responsibility for Fire Protection).

Section 1402 - Camping Area.

(a) No person shall prepare, ignite, maintain or use a campfire in any place other than a designated camping area unless that person or someone in attendance has in their possession a valid state forest campfire and special use permit. Failure to comply with the terms and conditions set forth on said permit shall render it invalid for purposes of this section.

- (b) No person shall prepare or ignite a campfire which is or will be unreasonably large and/or dangerous to the surrounding land, or maintain such a fire after having been ordered by a state forest officer to reduce or extinguish it.
- (c) No person shall leave a campfire ignited, maintained or used by that person unattended.

III. FEDERAL REGULATIONS

U. S. Forest Service Title 36 Code of Federal Regulations (36 CFR)

Section 261.52 - Fire. When provided by an order, the following are prohibited:

- (a) Building, maintaining, attending or using a fire, campfire, or stove fire.
- (b) Using an explosive.
- (c) Smoking.
- (d) Smoking, except within an enclosed vehicle or building, a developed recreation site, or while stopped in an area at least three feet in diameter that is barren or cleared of all flammable material.
- (e) Going into or being upon an area.
- (f) Possessing, discharging or using any kind of firework or other pyrotechnic device.
- (g) Entering an area without any firefighting tool prescribed by the order.
- (h) Operating an internal combustion engine except on a road.
- (i) Welding, or operating an acetylene or other torch with open flame.
- (j) Operating or using any internal or external combustion engine without a spark arresting device properly installed, maintained and in effective working order, meeting either: (1) Department of Agriculture, Forest Service Standard 5100-1a; or (2) the appropriate Society of Automotive Engineers (SAE) recommended practice J335(b) and J350(a).
- (k) Violating any state law specified in the order concerning burning, fires or which is for the purpose of preventing, or restricting the spread of fires.

Note: By authority of this regulation several California statutes have been adopted as Federal Regulations on National Forest land. See below.

Order No. 91-1.

Fire Restrictions—Pacific Southwest Region

Pursuant to 36 CFR 261.50 (a) and (b), each of the following is prohibited on lands, Forest Development Roads or Trails under my jurisdiction:

1. Building, maintaining, attending or using a fire, campfire or stove fire in any area outside a developed recreation site. 36 CFR 261.52(a).
 - (a) In Zone A as defined in California Public Resources Code 4413.
 - (b) In Zone B as defined in California Public Resources Code 4413, from May 1 until the date the hazardous fire conditions have been proclaimed abated for the year.
2. Using an explosive. 36 CFR 261.52(b)
3. Smoking, except within an enclosed vehicle or building, a developed recreation site, a designated smoking area, or while stopped in an area at least three feet in diameter that is barren or cleared of all flammable material. 36 CFR 261.52(d).
 - (a) In Zone A as defined in California Public Resources Code 4413.
 - (b) In Zone B as defined in California Public Resources Code 4413, from May 1 until the date the hazardous fire conditions have been proclaimed abated for the year.

4. Possessing, discharging or using any kind of firework or other pyrotechnic device. 36 CFR 261.52(f).
5. Welding or operating any acetylene or other torch with open flame. 36 CFR 261.52(i).
 - (a) In Zone A as defined in California Public Resources Code 4413.
 - (b) In Zone B as defined in California Public Resources Code 4413, from May 1 until the date that the hazardous fire conditions have been proclaimed abated for the year.
6. Operating or using any internal or external combustion engine on any timber, without a spark arresting device properly installed, maintained and in effective working order meeting either:
 - (1) Department of Agriculture, Forest Service Standard 5100-1a; or (2) appropriate Society of Automotive Engineers (SAE) Recommended Practice J335(b) and J350(a). Motor trucks, truck tractors, buses and passenger vehicles, except motorcycles, are not subject to the provisions if the exhaust system is equipped with a muffler as defined in the California Vehicle Code. 36 CFR 261.52(j).
7. Violating any of the following California State Forest and Fire Laws on National Forest Boundary, or adjacent thereto, when such act or omission affects, threatens, or endangers property of the United States administered by the Forest Service. 36 CFR 261.52(k).
Public Resources Code:
 - ✓ 4291 - Reduction of Fire Hazards Around Buildings
 - ✓ 4292 - Powerline Hazard Reduction
 - ✓ 4293 - Powerline Clearance Required
 - ✓ 4296.5 - Railroad Rights-of-way Clearance
 - ✓ 4373 - Minimum Requirements for Rubbish Dumps (under permit)
 - ✓ 4374 - Minimum Requirements for Rubbish Dumps
 - ✓ 4423 - Written Permit Required for Burning
 - ✓ 4427 - Clearance and Tools Required
 - ✓ 4428 - Firefighting Tools Required on Industrial Operations
 - ✓ 4429 - Industrial Camp Tool Cache
 - ✓ 4430 - Steam-operated Engine Equipment Requirements
 - ✓ 4431 - Gasoline Power Saw - Clearance and Equipment Required
 - ✓ 4438 - Forest Product Waste Disposal (enclosed)
 - ✓ 4439 - Forest Product Waste Disposal (open)
 - ✓ 4440 - Forest Product Waste Storage
 - ✓ 4446 - Incinerator Standards

Pursuant to 36 CFR 261.50(e), each of the following are exempt from this Order:

- a. Persons with a permit specifically authorizing the otherwise prohibited act or omission.
- b. Any Federal, State, or local officer, or member of an organized rescue or fire fighting force in the performance of an official duty.

This order supersedes Order 83-2, issued August 16, 1983. These Prohibitions are in addition to the General Publications in 36 CFR Part 261. This Order may be made more restrictive by temporary orders issued by the Regional Forester or a Forest Supervisor during periods of fire danger.

Executed in San Francisco, California this 24th day of July 1991.

/s/ Laurence Bembry
for Ronald E. Stewart
Regional Forester
Pacific Southwest Region

Violation of these prohibitions is punishable by a fine of not more than \$5,000.00 for an individual, or \$10,000.00 for an organization, or imprisonment for not more than six months or both. See Title 18, U.S. Code Section 3571.

Appendix D

GLOSSARY OF TERMS

Agriculture: Land used for agricultural purposes as defined in a local jurisdiction's zoning ordinance.

Building: Any structure used or intended for supporting or sheltering any use or occupancy that is defined in the California Building Code.

CDF: California Department of Forestry and Fire Protection.

Dead-end road: A road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.

Defensible space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.

Development: The uses to which the land which is the subject of a map shall be put, the buildings to be constructed on it, and all alterations of the land and construction incident thereto (GC 66418.1).

Director: Director of the Department of Forestry and Fire Protection or his/her designee.

Driveway: A vehicular access that serves no more than two buildings, with no more than three dwelling units on a single parcel, and any number of accessory buildings.

Dwelling unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for not more than one family.

Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions such as recorded historical sites, that provides mitigation of the problem.

Fire valve: See hydrant.

Fuel modification area: An area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.

Greenbelts: A facility or land-use, designed for a use other than fire protection, which will slow or resist the spread of a wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.

Hammerhead/T: A roadway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the road that serves it.

Hydrant: A valved connection on a water supply/storage system having at least one 2 ½ inch outlet, with male American National Fire Hose Screw Threads (NH) used to supply fire apparatus and hoses with water.

Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.

Occupancy: The purpose of which a building, or part thereof, is used or intended to be used.

One-way road: A minimum of one traffic lane width designed for traffic flow in one direction only.

Roads, streets, private lanes: Vehicular access to more than one parcel; access to any industrial or commercial occupancy; or vehicular access to a single parcel with more than two buildings or four or more dwelling units.

Roadway: Any surface designed, improved, or ordinarily used for vehicle travel.

Roadway structures: Bridges, culverts, and other appurtenant structures which supplement the roadway bed or shoulders.

Same Practical Effect: An exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for firefighter safety, including: a) access for emergency wildland fire equipment; b) safe civilian evacuation; c) signing that avoids delays in emergency equipment response; d) available and accessible water to effectively attack wildfire or defend a structure from wildfire; and e) fuel modification sufficient for civilian and firefighter safety.

Shoulder: Roadbed or surface adjacent to the traffic lane.

State Board of Forestry (SBF): A nine-member board appointed by the Governor, which is responsible for developing the general forest policy of the State, for determining the guidance policies of the Department of Forestry and Fire Protection, and for representing the State's interest in federal land in California.

State Responsibility Area (SRA): Areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the State Board of Forestry pursuant to PRC 4125 to be primarily the responsibility of the State (PRC 4102).

Structure: That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Subdivision: The division, by any subdivider, of any unit or units of improved or unimproved land, or any portion thereof, shown on the latest equalized county assessment roll as a unit or as contiguous units, for the purpose of sale, lease or financing, whether immediate or future (GC 66424).

Traffic lane: The portion of a roadway that provides a single line of vehicle travel.

Turnaround: A roadway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.

Turnouts: A widening in a roadway to allow vehicles to pass.

Vertical clearance: The minimum specified height of a bridge or overhead projection above the roadway.

Wildfire: As defined in Public Resources Code Sections 4103 and 4104.