



California State Fire Marshal Information Bulletin 16-003

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Guidelines for Log Storage Areas Due to Tree Mortality

California's drought conditions have exacerbated the bark beetle infestation that is killing tens of millions of trees across the state. The tree mortality epidemic has significantly increased the risk of wildfires and life safety risk from falling trees. Governor Brown has issued a Proclamation of a State of Emergency to advance the removal of the dead trees and mitigate the hazard to California. The clearing of the dead trees is creating the demand of sites to store the timber until they can be processed. The Office of the State Fire Marshal (OSFM) is issuing this Information Bulletin to aid fire officials with the evaluation and approval of temporary log storage areas.

Governor's Proclamation of a State of Emergency:

Governor Brown issued a Proclamation of a State of Emergency on October 30, 2015 on the risk of wildfire based on the tree mortality and the drought. This was followed with a letter of support for aggressive action from Secretary Vilsack with the U.S. Department of Agriculture. The Governor's Proclamation provides relief from strict compliance with various statute and regulations that would prevent, hinder or delay the mitigation of the effects of the drought. The State of Emergency is in effect statewide but six counties have been identified by CAL FIRE as a priority: Fresno, Kern, Madera, Mariposa, Tulare and Tuolumne. The Proclamation also directs CAL FIRE to issue emergency guidelines with relevant criteria to assist government entities.

Regulations for Log Storage:

The Office of the State Fire Marshal approved chapter 28 of the 2012 International Fire Code without amendment and the referenced standard NFPA 1142, *Water Supply for Suburban and Rural Fire Fighting*, which were adopted into the 2013 California Fire Code (CFC) by the Building Standard Commission. This became the minimum standards for Lumber Yards and Woodworking Facilities in California. The enforcement of these regulations is the responsibility of the Authority Having Jurisdiction (AHJ) as defined in CFC 1.11.2.1 which is most likely in these circumstances the County Fire Chief and their authorized representatives.

There is an estimate of 20 million dead trees in the state that will need to be cleared. This may cause the operational need of utilizing very large log piles or cold decks. The large fire load and history of lumber yard fires are a concern. The regulations are in place to prevent or contain a fire in a lumber yard and to prevent conflagration, release of smoke and green gases, and to ensure that fire personnel have the needed water in case of a fire. CFC 2806.2 limits the size of log storage cold decks to 500 ft. by 300 ft. and a height of 20 ft., with 100 ft. exposures.

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It does allow AHJ approved increases with additional fire protection. NFPA 1142 is the adopted requirements for suburban and rural fire fighting water supply based on the processes on site.

Guidelines for Approving Log Storage Sites during the State of Emergency:

The approval will be done by the local AHJ. During the State of Emergency, there are factors that should be considered when the ability to meet the regulations is not practical.

General

- Is the overall hazard to the public reduced by using the possible site and operation
- What are the potential sources of ignitions

Response

- What are capabilities and needs of the fire department in case of a fire
- What is fire department access to the site
- What is the response time

Use

- What are the exposures and the risk of an uncontained wildfire in the area
- Is the site used only for log storage or will there be other processing of the timber on site. This would be a different hazard that might include combustible dust, sources of ignition and/or structures. A processing site that produces combustible dust should not be approved without appropriate code compliance.
- Is the site a "mixed use site" and what are the other uses
- How long is the expected time of the log storage

Clearances

- What are clearances and separation of each cold deck that will be needed to mitigate the risks
- What type of vegetation is located on the site
- What is the maintenance plan for vegetation clearances and weed control

Water

- What is the water availability and what are the flow rates
- Can water supply be supplemented by water tenders
- Are there natural water sources available as a drafting
- What are the effects of the drought on the available water sources
- What are the effects of proposed requirements on the drought

In conclusion, the AHJ should use rational and sound fire prevention judgement when approving sites and providing requirements to mitigate fire danger during this State of Emergency.

Resources:

Governor's news release: <https://www.gov.ca.gov/news.php?id=19180>

Proclamation of a State of Emergency on Tree Mortality:

https://www.gov.ca.gov/docs/10.30.15_Tree_Mortality_State_of_Emergency.pdf

Letter to Secretary Vilsack: https://www.gov.ca.gov/docs/10.30.15_Tree_Mortality_Letter.pdf