

Initial Statement of Reasons

Fire Prevention Precautions, 2009

[Published May 29, 2009]

Title 14 of the California Code of Regulations (14 CCR)

Amend:

§ 938.8 **Inspection for Fire**

PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THESE REGULATIONS ARE INTENDED TO ADDRESS

In late 1990, a short term spike in the price being paid for “clean” chips for paper created a market for the use of mechanical logging sides in California. This reasonably new technology provided three major types of cutting heads on the feller-bunchers. The first type is the shear type cutting head that was hydraulically actuated and used a scissor type mechanism to sever the tree from the stump. These heads were generally on tricycle type units that were limited to harvesting trees less than 18 inch diameters. This type of feller-buncher was primarily a rubber tired machine and presented no history of starting fires in their operations.

The second type of mechanism was an opposing set of chainsaw bars that severed the tree from the stump. This type of head was reasonably more precise in the log lengths and could be used on larger trees. These machines could be mounted on tractors and forwarders, and were able to harvest larger trees.

The third type harvesting head was the “hot saw”. This was a large metal disc that was turned at very high RPM’s to sever trees from the stump. These heads could be used on trees up to 24” diameter, and were typically mounted on larger track type power units that could be safely and efficiently operated on slopes up to 50%. The ability of this type head to harvest larger diameter trees and operate on steeper slopes has made it popular for use in the mechanical logging operations. The metal disc has large, metal, replaceable teeth that are installed on the outside edge of the metal disc. Because of the speed necessary to allow the cutting of the tree, dust is raised by the use of these machines. This cloud of dust raised by the harvesting operation makes it difficult for the operator to assure that the head does not hit dirt or rocks near the base of the tree. When this disc or the teeth strike a rock, sparks are created and these metal flakes come off at a temperature in excess of 1500° Fahrenheit, and can easily ignite forest fuels.

Since 2000, hot saw operations have been responsible for starting anywhere from eight to 20 fires per year in California on a combination of federal and private ownerships. In 2004, a “hot saw” timber operation in Lassen County caused the Straylor fire where a patrol did not detect the small smoldering fire that became the Straylor Incident. In 2005, the “51” fire in Amador-El Dorado CAL FIRE Unit was caused by a “hotsaw” operation and cost \$365,000 to suppress. In 2007, the “New Bear” fire in Siskiyou County was caused by a “hot” saw operation. The measures included in the proposed regulation could very well have prevented the \$12,400,000.00 expenditure required to suppress these wildfires. In recognition of the higher likelihood of “hotsaw” operations starting wildfires, several larger industrial landowners have incorporated many of the proposed requirements of the regulation included in this package.

While existing regulations provide for fire inspections during all timber operations, terms and conditions of the inspections are not well defined. Currently, 14 CCR § 938.8 reads, “The timber operator or his/her agent shall conduct a diligent aerial or ground inspection within the first two hours after cessation of felling, yarding, or loading operations each day during the dry period when fire is likely to spread. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire that may be detected.” The fact that the regulation does not specify the definition of a “diligent” search for fire has led CAL FIRE to propose the measures required in this regulation to suggest measures that could be implemented to prevent fires.

The Board of Forestry and Fire Protection has the authority to define a diligent search and to incorporate additional fire prevention regulations as stated in the Z’Berg-Nejedly Forest Practice Act, codified under the Public Resource Code § 4551.5.

SPECIFIC PURPOSE OF THE REGULATION

The primary purpose of the proposed regulation is to require a foot patrol fire inspection to prevent wildfires ignited by commercial timber harvesting operations utilizing mechanical felling machines equipped with a rotating metal blade. The proposed regulation is “pilot project” with a limited duration of three years and applicability limited to the Northern Forest Practice District. The proposed regulation applies to only mechanical felling machines equipped with a rotating metal blade (either “hot saw” or intermittent, excluding chainsaw type bars or shears.) and is not intended for other types of equipment.

The proposed amendments to 14 CCR § 938.8 (a) introduces the list of requirements that a Licensed Timber Operator (LTO) would be required to do as part the expanded fire patrol inspection.

The proposed amendments to 14 CCR § 938.8 (a) (1) specifies the type of equipment which is subject to the foot patrol fire inspections. Only timber operations utilizing mechanical felling machines equipped with a rotating metal blade (either “hot saw” or intermittent, excluding chainsaw type bars or shears) are subject to the proposed foot patrol inspections.

The proposed amendments to 14 CCR § 938.8 (a) (1) (A) establish the foot patrol and specifications for the fire suppression equipment that is required to be in the vicinity of the patrol. The requirement and equipment includes a patrol by a person with a vehicle equipped with: 1) a serviceable 5 gallon backpack pump filled with water, 2) A shovel or McLeod fire tool, 3) either a double bit ax, or a serviceable chainsaw with a minimum 20 inch bar), and 4) shall have communications equipment capable of summoning additional fire suppression resources or contacting the agency responsible for fire suppression. The proposed regulation requires the patrol person to maintain this inventory in their vehicle. If the vehicle used for the patrol contains the sealed fire tool box required by PRC 4428, this would satisfy the requirements of the fire tool inventory in the vehicle required by the proposed amendment.

The proposed amendments to 14 CCR § 938.8 (a) (1) (B) and (C) establish the location of the patrol area, duration a patrol, documentation of information about the conduct of the patrol, and fire inspection procedures to be deployed during the patrol.

The proposed amendments to 14 CCR 938.8 § (a) (1) (D) require wood debris or chips accumulated in the cutting head to be cleaned-out by equipment operators at least every two hours during operations to prevent the build-up of vegetative material that could ignite and be discharged to start a fire.

The proposed regulation is a pilot project which will evaluate the efficacy of the regulation. The proposed amendment establishes an expiration date on December 31, 2012, for purposes of limiting the duration of the pilot project regulation. Additionally, the pilot project is limited to the Northern Forest Practice District.

During the term of this regulation, CAL FIRE will evaluate the regulation and determine:

- 1) If the fire occurred as a result of a “hot saw” operation.
- 2) What were the weather conditions at the time of the fire?
- 3) What time of day did the fire start, when was it reported, when was it suppressed?
- 4) Was the operation in compliance with the regulation as proposed?
- 5) What was the size of the fire when suppressed?

With this information, CALFIRE will report to the Board of Forestry and Fire Protection in the fall of 2012 with recommendations for whether the regulation should be renewed, rewritten, or withdrawn. With this information, this regulation is expected to highly contribute towards preventing large, damaging fires occurring as a result of these operations.

ALTERNATIVES TO THE REGULATIONS CONSIDERED BY THE BOARD AND THE BOARD'S REASONS FOR REJECTING THOSE ALTERNATIVES

The Board has considered several alternatives to the proposed regulation.

Alternative 1: Not requiring the proposed regulation and using existing inspection requirements.

This alternative would leave the existing rules intact and rely on the general inspection requirements of 14 CCR 938.8. The alternative was rejected as it does not provide the opportunity for more intensive patrol inspections nor the pilot period of evaluation to determine if the proposed foot patrol requirements are effective in preventing fires started by mechanical felling machines equipped with a rotating metal blade.

Alternative 2: Requiring a comprehensive intensive fire patrol inspection in the Northern District, the Southern District, and the Coast District that would apply to metal-track, cable, and mechanical felling equipment.

This alternative would have required foot patrols as the sole means of fire inspection. It was rejected as it did not highly utilize vehicle patrol, required substantial hours to patrol multiple skid roads on foot, did not highly consider the use of aerial patrols as a primary patrol, and would have required the hiring of additional personnel at substantial cost to carry out the patrols and other activities related to the inspection.

Alternative 3: Limit or expand the duration of the foot patrol.

This alternative considered both shortening the length of the foot patrol duration to less than two hours or expanding the duration to greater than two hours. Limiting the duration to less than two hours may be practical and reasonable when there are low fire hazard conditions during the fire season (e.g. wet weather, high humidity) or when there was limited time or area operated by the “hot saw” (less than 1 hour of operations or less than one acre harvested.) This alternative was rejected because the expense associated with the expanded duration of time beyond the two hour inspection period. Also, the limited inspection period was rejected as even short periods of operations could result in rock strikes that create sparks or heated metal flakes that could ignite forest fuels. Stakeholders, including Associated California Loggers (ACL), supported the rejection of the more limited inspection period, but retained doubt about the efficacy of the full two-hour duration of the foot patrol inspection. They recommended the pilot project assess the efficacy of the full two-hour duration of foot patrol inspection.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any significant adverse environmental effects as a result of the proposed rules. The proposed rules are intended to prevent wildfire that often results in a significant environmental impact. The proposed regulation results in no additional physical impact to the environment beyond those in the existing rules.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

Alternatives #1 and #3 above would lessen any adverse impact on small business.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Board staff estimated the regulation should not have a significant adverse economic impact on any business. The proposed amendment to the regulation does not require shut down of the operation, and only requires that a much more intensive patrol be implemented by the timber operator on operations using “hotsaw” equipment.

The proposed regulation results in additional costs to the regulated public and is related to imposing the mandatory foot patrols for fire prevention. The costs are estimated to not result in a significant economic impact. The proposed regulation includes inspections requirements that are less costly than other alternatives considered. For example, Alternative #2 considered by the Board included the Licensed Timber Operator measuring weather during the day to determine when the patrol would occur. During meetings with members of ACL, members stated that it would be cheaper for them if they knew that they were required to have the patrol or not the day before. Further discussions led to CALFIRE proposing, and ACL concurring, that the patrol would occur during the “dry period when fires are likely to spread”.

No specific cost estimates of the proposed regulation are included. However, cost estimates were made by CAL FIRE for alternatives which included the LTO taking weather measurements and deploying inspections based on the results of the weather measurements. The cost for this type of inspection would have cost the timber operator approximately \$400 a day, based on a salary of \$20 per hour and vehicle, gas, and other associated costs. ACL estimated that these cost assessments were likely greater when considering other costs including additional personnel, additional vehicles, additional insurance costs, and the effect of the requirements on multiple logging sides. As a result of discussions with ACL and CAL FIRE, the Board has proposed to require the patrol for two hours after shut down of felling in areas where hotsaws have operated. This requirement allows the operators to conduct the patrol, avoiding the cost of an additional person who would have to be hired to conduct the patrol. This greatly reduces the cost of the patrol to the LTO.

TECHNICAL, THEORETICAL, AND/OR EMPIRICAL STUDY, REPORTS, OR DOCUMENTS

The State Board of Forestry and Fire Protection consulted the following listed information and/or publications as referenced in this *Initial Statement of Reasons*. Unless otherwise noted in this *Initial Statement of Reasons*, the Board did not rely on any other

technical, theoretical, or empirical studies, reports or documents in proposing the adoption of this regulation.

1. CAL FIRE. 2009. Statistical Causes of Fires in Northern Region. SRA Fires caused by Logging Activities.

Pursuant to Government Code § 11346.2(b)(5)

In order to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues as those addressed under the proposed regulation revisions listed in this *Initial Statement of Reasons*; the Board has directed the staff to review the Code of Federal Regulations. The Board staff determined that no unnecessary duplication or conflict exists.

PROPOSED TEXT

The proposed revisions or additions to the existing rule language are represented in the following manner:

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UNDERLINE indicates an addition to the California Code of Regulations, and ~~strikeout~~ indicates a deletion from the California Code of Regulations.

All other text is existing rule language.