



Model Guidelines for Connecticut Live Fire Training During High Fire Danger

**Model Procedures
The Commission of Fire Prevention and Control**

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Model Guidelines for Connecticut Live Fire Training and the Wildland Urban Interface

I. Introduction

Live fire training in Connecticut must comply with NFPA 1403 (NFPA 1400 Series January 2026) standards. Additionally, there are recommended precautions to prevent forest or wildland fires around live fire training areas, particularly during periods of heightened risk.

During established burn bans, it is imperative that the department, regional school, or agency head consults with the local open burn official to secure permission before proceeding. In jurisdictions where oversight involves both the local open burn official and the State Fire Marshal's Office, authorization must be obtained from both authorities.

To guide decision-making, it is essential to reference the Connecticut Department of Energy and Environmental Protection's (DEEP) published forest fire danger rating and any special weather statements. This approach ensures responsible action aligned with current safety protocols.

Specific measures should be tailored to the fire danger level and the nature of the live fire training being conducted for both Class A and B fuels. The primary objective should always be to deliver high-quality, high-fidelity training while prioritizing the safety of firefighters, instructors, and the surrounding community.

II. Forest Fire Danger Rating System

The DEEP Division of Forestry issues Forest Fire Danger Ratings for Connecticut. A National Fire Danger Rating system that utilizes two indexes is used in Connecticut. The "spread" of a fire is predicted with the Spread Index, which is a measure of the effect of weather on the relative rate of forward movement of surface fires. Actual rates of spread are additionally influenced by fuel type, topography, and aspect.

Connecticut also uses a Build Up Index that tracks fuel moisture. It is a relative scale that is based upon past precipitation.

Ratings may differ statewide based on many factors. Therefore, it is important to check the ratings based on the area you are training within.

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The 5 Forest Fire Danger Ratings or Class Days are:

Rating or Class Days	Spread Index	Build Up Index
LOW	0-10	0-22
MODERATE	11-15	23-44
HIGH	16-29	45-59
VERY HIGH	30-39	60-74
EXTREME	> 40	> 75

In addition, three vegetative conditions may exist.:

- The first stage is a cured stage, meaning the fuels are in a cured state, exposed to full sunlight (early springtime and winter with no snow coverage).
- The second stage is a transition stage (late spring/fall), meaning the upper tree canopy is partially leafed out.
- The third stage indicates full leaf out (summer).

Three important weather factors affect fire start, spread, and the fire weather danger.

1. Wind - the most crucial factor; it dries out fuel and drives the fire.
2. Relative humidity (RH) - affects fuel moisture.
3. Precipitation totals.

III. Special Fire Weather Statements

Red Flag Warnings

Red Flag Warnings are issued by the National Weather Service (NWS), which predicts weather and forecast warnings nationwide. Connecticut is divided between three different National Weather Service stations. Predictions for Hartford, Tolland, and Windham counties are made in Taunton, MA; predictions for Litchfield County are made in Albany, NY; and predictions for Fairfield, New Haven, Middlesex, and New London counties are made in Brookhaven, NY.

A Red Flag Warning means there are conditions for an increased risk of fire: a combination of extremely low humidity, warm temperatures, and strong winds. Red Flag Warnings are not a fire danger rating, and they are not synonymous with High, Very High, or Extreme fire danger. Red Flag Warnings are issued when winds will be sustained or there will be frequent gusts above a certain threshold (normally 25 mph). In addition, relative humidity needs to be below 30% and precipitation for the previous 5 days must have been less than 1/4-inch.

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When creating your pre-burn plan, weather and predicted fire warning should be considered. Plans should be established to consider the fire danger rating and special warnings for the day and time your training will occur.

IV. Best Practices for Class A Training: Within an established fixed facility

In times of red flag warnings, it is recommended to postpone the training.

To ensure safe operations during the live fire training, during times of high or extremely high fire rating, the following protocols should be strictly adhered to.

1. Pre-Training Wet Down:

- Conduct a thorough wet down of the perimeter surrounding the Class A Burn Building before training begins and immediately after training concludes to mitigate the risk of fire spread.

- consider wetting down the area at regular intervals during the evolutions. Setting up sprinklers in areas of concern for constant operation while utilizing minimal amounts of water.

- Consider growth management to include mowing areas low and regularly limit the number of fuels available. Consider prescribed burn in partnership ahead of time with Department of Environment and Energy protection (DEEP)

2. Dedicated Safety Monitoring:

- Assign an additional Instructor or Safety Officer dedicated to continuously monitoring wind direction and assessing potential ember travel paths during the training activities to ensure immediate response to changing conditions. (Kestrel or Belt Weather Kits are essential to real-time weather conditions in your immediate area, as well as proper training)

3. Control of Openings:

- Ensure all windows and doors are closed or monitored closely throughout each live fire evolution to prevent uncontrolled fire spread and maintain containment within the training structure. (Ensuring the safety of FF's comes first)

4. Positioning of Burn Racks:

- Place burn racks strategically away from windows and doors to minimize the risk of fire escape through these openings.

- At no time will there be any fire that extends out of the confines of the building. (Unless weather permits safe demonstration of real-life structural scenarios)

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5. Closure of Building Scuppers:

- Keep all building scuppers closed during live fire evolutions to manage smoke and embers effectively within the burn structure. (Unless otherwise needed, open for operational and FF safety)

6. Assignment of a brush fire intervention team:

- Have a dedicated team in staging with the appropriate equipment necessary to immediately address any fires that start or extend outside of the building.

Live fire training facilities should consider having staff trained to the U.S. Fire Administration standard, S-130 and S-190 which are the basic wildland firefighter training courses.

7. Post-Training Verification:

- Assign a minimum of two instructors to verify that all live fires and any related discharge, such as smoke and embers, have been fully extinguished following the training. (Use of Thermal Imaging Cameras is recommended)

- Ensure all Class A materials used during the training are secured within the structure and kept under observation for a minimum of 24 hours post-training to confirm full extinguishment before being moved to a disposal container. (Disposal containers should be made of noncombustible material and be away from forest and grassy areas)

V. Best Practices for Class A Training: Outdoors, not within an established fixed facility

Specific protocols should be strictly adhered to ensure safe operations during the live fire training, outside, not in the confines of a Class A fixed facility. Protocols should be established based on the DEEP fire rating for the day and time frame of the training:

1. Fire Danger Rating

Low

- Assign one safety officer.
- Have a charged hoseline(s)
- Monitor for flying brands.
- Clear all vegetation with a minimum of 50' from prop.
- Conduct a minimum of 50' from wood line.

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Moderate

- Assign one safety officer.
- Have a charged hoseline(s)
- Wet down surrounding areas.
- Reduce Fuel usage by 25%.
- Clear all vegetation with a minimum of 400' from prop.
- Ceremony will take place at a minimum of 400' from the wood line (extrication pad)

High

- Assign safety officers.
- Assign an additional Instructor or Safety Officer dedicated to monitoring firebrands and take immediate and necessary action to reduce and eliminate flying brands.
- Have a charged hoseline(s)
- Consider a second charged hoseline.
- Wet down surrounding areas.
- Clear all vegetation with a minimum of 400' from prop.
- Reduce Fuel usage by 50%.
- Training will take place at a minimum of 400' from the wood line (extrication pad)

Very High

- Postpone the training.

Extreme

- Postpone the training.

VI. Best Practices for Class B Training: Outdoors, not within an established fixed

To ensure safe operations during the live fire training, outside, not in the confines of a Class B fixed facility, specific protocols should be strictly adhered to. Protocols should be established based on the fire rating for the day and time frame of the training:

Fire Danger Rating

Low

- Assign one safety officer.
- Have a charged hoseline(s)
- Monitor for flying brands.

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- Clear all vegetation with a minimum of 50' from prop.
- Conduct a minimum of 50' from wood line.

Moderate

- Assign one safety officer.
- Have a charged hoseline(s)
- Wet down surrounding areas.
- Reduce Fuel usage by 25%.
- Clear all vegetation with a minimum of 400' from prop.
- Ceremony will take place at a minimum of 400' from wood line.

High

- Assign safety officers.
- Assign one Fire Effects Monitor
- This individual's sole purpose is to monitor firebrands and take immediate and necessary action to reduce and eliminate flying brands.
- Have a charged hoseline(s)
- Consider a second charged hoseline.
- Wet down surrounding areas.
- Clear all vegetation with a minimum of 400' from prop.
- Reduce Fuel usage by 50%.
- Training will take place a minimum of 400' from wood line (extrication pad)

Very High

- Postpone the training (if possible)
- Assign safety officers.
- Assign one Fire Effects Monitor
- This individual's sole purpose is to monitor fire brands and take immediate and necessary action to reduce and eliminate flying brands.
- Have a charged hoseline(s)
- Consider a second charged hoseline.
- Wet down surrounding areas.
- Clear all vegetation with a minimum of 400' from prop.
- Reduce Fuel usage by 75%.
- Training will take place at a minimum of 400' from the wood line (extrication pad)

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Extreme

Postpone the training.

VII. Compliance Assurance:

The agency conducting the live fire training should always adhere to and comply with the Firefighter Live Fire Policy throughout the training, ensuring adherence to all safety regulations and standards. The above-recommended procedures are designed to and should be implemented to protect the safety of participants, instructors, and the community.

VIII. Conclusion:

Live fire training is an essential component of maintaining the readiness and effectiveness of the Connecticut fire service. These exercises play a critical role in preparing fire departments across the state to respond to emergencies with confidence and precision.

To ensure the safety of personnel, the public, and the environment, departments must conduct live fire training with the highest safety standards in place. Careful planning and adherence to strict protocols are necessary to prevent unintended fire spread or environmental hazards.

If a wildfire is unintentionally ignited during a training burn, it is imperative to report the incident promptly. The Department of Energy and Environmental Protection (DEEP) must be notified through a Fire Control Officer within 24 hours—or sooner if assistance is required to extinguish the fire.

Link to online reporting: [Click Here For On-Line DEEP Reporting System](#)

This prompt action ensures proper management of the incident and minimizes potential impacts on the environment and community.

By prioritizing safety and compliance, Connecticut fire departments can continue to benefit from live fire training while upholding their commitment to protecting the public and the environment.