

SCRIPT #4 - Other Purposes of Open Burning that may be Authorized

Slide 1 – Face Page - DEEP Face Page

Slide 2 – Title Page

Slide 3 – Module Outline

This module will cover the remaining types of open burning activities that can be permitted by a municipal Open Burning Official under Connecticut General Statutes Section 22a-174(f). Only the local Open Burning Official can issue open burning permits for the following activities proposed on non-state-owned properties: Fire training exercises; Eradication or control of insect infestations or disease; Agricultural purposes; Clearing of vegetative debris following a natural disaster; and Vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space.

This module will cover the following:

- Relevant sections of the Connecticut General Statutes, sections 22a-174(f) and 23-49a.
- Brief descriptions for each of the different types of activities that may be engaged if the Open Burning Official issues an open burning permit.
- An overview and discussion of the model Application/Permit Templates
- Key contacts that have been identified and who can provide technical assistance to the municipal Open Burning Official if needed when evaluating submitted applications.
- Take Aways

Slide 4 – Open Burning Activities that may be authorized per Connecticut General Statutes

Connecticut General Statutes Section 22a-174(f) includes language which allows municipalities to regulate or ban the open burning of brush within its boundaries for any purpose. This Statute includes language which allows open burning to be conducted for certain specified types of activities on non-state-owned properties provided that the municipal Open Burning Official issues a permit for such activity.

This Statute further identifies that any open burning on state property can only occur with the written approval of the Commissioner of the State of Connecticut's Department of Energy and Environmental Protection.

Slide 5 – Open Burning Activities that may be Authorized per Connecticut General Statutes

Connecticut General Statutes Section 23-49a covers the following: declaration of a burning ban by the State Forest Fire Warden, the process of obtaining a special burning permit during a period of a burning ban, penalties resulting from violating sections of this statute, and exemptions for duly authorized public authorities in carrying out their assigned duties where the use of fire is necessary to the reduction of a health or fire hazard.

Slide 6 – Description of Open Burning Activities that may be Authorized

A brief description for each of the types of activities where open burning may be engaged in, provided that it is authorized by a municipal Open Burning Official, is provided over the next few slides.

With regard to open burning for the purpose of **Fire Training Exercises**,

- Firefighters must maintain their readiness through on-going training, including live fire training exercises. While training is provided at the Connecticut Fire Academy and the nine independent Regional Schools located throughout the State, some municipalities conduct live fire training exercises within their town boundaries.
- Types of live fire training exercises include the intentional burning of structures (whole and/or partial), motor vehicles and other types of conveyances (i.e., small airplanes); dumpster fires; and the suppression of flammable/combustible liquids. These types of exercises should be conducted pursuant to the most current edition of the National Fire Protection Association 1403 Standard on Live Fire Training Evolutions. There may be other types of fire training, such as wild land fire training. Other types of training should only be conducted pursuant to relevant recognized standards and/or guidance.
- Strict public health and safety and environmental regulatory compliance requirements must be met, as well as the ability to meet the associated costs for the proper screening, management and disposal of any waste materials depending on the type of burn proposed (i.e., structural burns).

Slide 7 – Description of Open Burning Activities that may be authorized

With regard to open burning for the purpose of **Eradication or control of insect infestations or disease**,

- Within Connecticut, there are known insects and known diseases where the use of open burning may be the best management practice for the control or eradication of insects and disease in infested woody debris.

With regard to open burning for **Agricultural purposes**,

- Connecticut farmers depend on productive agricultural land to optimize their potential harvest. Overgrown hedgerows, invasive plants, and undesirable growing stock all contribute to loss of productive farmland. The use of open burning under certain situations may be the best management practice option for the farmer.
- The use of open burning for agricultural purposes includes, but is not limited to, the following: the clearing of brush and unwanted plant material from hedgerows and cropland; reclaiming previously active farmland to enhance existing or establish new farming operations; controlling invasive plant material and invasive plant seed; controlling insects and diseases; pruning and culling fruit trees, bushes and Christmas trees; and conducting frost damage control.

Slide 8 – Description of Open Burning Activities that may be authorized (Cont)

With regard to open burning for the purpose of **clearing vegetative debris following a natural disaster**,

- The types of natural disasters that could impact the State include hurricanes, tornadoes, and ice storms. During such natural hazard events, a portion of the waste stream that will be generated will be green waste/vegetative debris. This type of material is that portion of the clean wood waste stream consisting of vegetative debris including all portions of a damaged or downed tree to include the stump, limbs and other brush.
- The most immediate impact of such storms on forests is that a massive amount of living forest biomass turns into dead fuel which dramatically increases fuel loading, a major factor for forest fire risk.

- The use of this type of permit is for a prescribed burn to be conducted for the purpose of “clearing” vegetative debris from a tract of land on which the debris is located. A prescribed burn means a fire conducted for a specific, clearly stated purpose that is confined to a predetermined area under very specific weather conditions and conducted by personnel with the required training and experience. This is a very dangerous type of burn and one that needs well thought out planning and execution.

Slide 9 – Description of Open Burning Activities that may be authorized (Cont)

With regard to open burning for the purpose of vegetative **management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space,**

- There are certain landscapes where open burning is used as an ecological management tool for the purpose of achieving a desired ecosystem outcome. This type of burn is a fire conducted for a specific, clearly stated purpose that is confined to a predetermined area under specific weather conditions and conducted by personnel with the required training and experience.
- In some cases, these types of burns may need to occur during a burning ban as declared by the State Forest Fire Warden. Prescribed burns for silviculture and wildlife habitat are rarely successful when the fire danger is moderate or lower. Special Burn Permits are issued for a time of year when relative humidity and dormant vegetation creates conditions favorable for a successful burn.

Connecticut General Statutes Section 23-49a allows an owner of land or an agent of such owner to apply to the State Forest Fire Warden for a Special Burning Permit during such a period of a burning ban. This is a “State” issued permit. If the State Forest Fire Warden is of the opinion that the proposed burn is of immediate necessity, will not be in conflict with local or State regulatory authority, and that the applicant has the necessary equipment and manpower to confine the fire, the State Forest Fire Warden may issue a Special Burning Permit stating the location, time and conditions under which such burning is to be effected.

With a “State” permit, the Permittee may apply for a local burn permit for a high fire danger day within the specific window period. The required local permit is typically issued for the day of the burn so that the local officials can be assured immediate conditions and concerns are addressed. The State issued permit provides local burning officials information that the Permittee has demonstrated the ability to safely carry out the burn. The local permit addresses additional specific conditions such as when the locally issued permit is not valid under certain other conditions, wind speed, availability of additional local fire suppression resources, ambient air quality, and other local concerns.

Slide 10 – Application/Permit Templates

With the exception of the open burning activity entitled “clearing vegetative debris following a natural disaster”, the State of Connecticut’s Department of Energy and Environmental Protection, Bureau of Air Management’s Open Burning Program has developed specific individual model application/permit templates and guidance documents for each of the proposed activities as identified in Connecticut General Statutes Section 22a-174(f).

The model templates can be modified by the local Open Burning Official but any modifications made must be as, or more restrictive than Connecticut General Statutes Section 22a-174(f) or as prescribed by the State of Connecticut’s Department of Energy and Environmental Protection, Bureau of Air Management’s Open Burning Program and is referred to in this module as the “State Agency”. There are certain permit conditions and language that cannot be changed, amended or deleted. Specifically, no changes to the template should be made to the section on the template entitled “When the permit is not valid under certain conditions”. These

conditions are found in Connecticut General Statutes sections 22a-174(f) and 23-49a. Careful consideration should be made before any changes to the model templates are made.

For each of the model Application/Permit Templates, there is an *Application Information* section to be completed by the Applicant; there are the following sections to be completed by the local Open Burning Official – *Permit Conditions, Final Decision, and Signature/Town/Date*. It is the Applicant’s responsibility to provide the information requested on the application so that the local Open Burning Official can make an informed decision concerning the submitted application.

Slide 11 – Overview of Application/Permit Templates

The front page of the model template consists entirely of the Application Information Section.

This Section requires the Applicant to provide their contact information, complete the requested data fields found on the form and any other additional information that may be requested by the local Open Burning Official and provide their signature on the form.

For each of the model templates, the Application Section was developed with a distinct focus for each type of open burning activity. The Applicant should complete in full the information fields and provide any documentation as requested. The information that is provided by the Applicant needs to clearly support the proposed activity.

Each of the model templates Application Section will be covered in more detail later in this module.

Slide 12 – Application/Permit Templates (Cont)

The Permit Conditions are outlined on the second page of the model template. The Permit Conditions Section includes the four subsets:

- General Permit Statements;
- Permit Not Valid under any of the following conditions Listed;
- General Conditions Applicable to All Permits; and
- Special Conditions, Applicable if checked by the local Open Burning Official.

With the exception of minor modifications made under “General Conditions” for two of the templates, the Permit Conditions remain consistent. A modification was made to the template entitled “Eradication or Control of Insect Infestations or Disease” (Condition #7) and a modification was made to the template entitled “Vegetative Management or Enhancement of Wildlife Habitat or Ecological Sustainability on Municipal Property or on Any Privately-owned Property Permanently Dedicated as Open Space” (Condition #3). These two modifications will be covered later in this module.

The next three slides will cover the permit conditions as listed under these subsections.

Slide 13 – Overview of the Permit Conditions

Under **General Statements**, the following narrative is listed:

The first bullet states: This is a valid permit only when signed by the local Open Burning Official.

The second bullet states: The permit does not relieve the permittee of any legal liability which may be incurred as a result of the fire.

The third bullet states: Failure to adhere to the conditions of the permit may result in penalties and/or enforcement actions.

Under the **Permit is not valid under any of the following conditions**, the following narrative is listed:

- When national or state ambient air quality standards may be exceeded.
- Where a hazardous health condition might be created.
- When the Air Quality Index (AQI) is predicted to be 75 or higher anywhere in the State as indicated in the Table entitled "Predicted Daily AQI Maximums for month/day/year" as found at the State of Connecticut's Department of Energy and Environmental Protection's website for the Air Quality Index
- When the Forest Fire Danger Level is high, very high, or extreme, as found at the State of Connecticut's Department of Energy and Environmental Protection's website for the Forest Fire Danger
- When there is an advisory from the State of Connecticut's Department of Energy and Environmental Protection of any air pollution episode.

As a reminder to Open Burning Officials, each municipality must establish their own process by which the Permittee obtains the information necessary to conduct their permitted burn. The process to determine if conditions are suitable is often described on the municipality's website and/or issued permit. Again, as in previous modules, it is noted here that Municipalities **SHOULD NOT DIRECT** Open Burning Permit Holders, also referred to as Permittees, **TO CALL** the State Of Connecticut's Department of Energy and Environmental Protection's Emergency Dispatch Center for the purpose of obtaining the State's *Predicted Air Quality Index Maximums* and the State's *Forest Fire Danger Level*.

Slide 14 – Overview of the Permit Conditions (Cont)

Under the **General Conditions: Applicable to all Permits**, the following narrative is listed:

Number one – Open burning is limited to activities as approved by the local Open Burning Official.

Number two - Burning must cease if so directed by any member of the Town Fire Marshal's Office, any Peace Officer, any Officer of the Fire Department, any designated municipal official responsible for enforcing the open burning laws and ordinances or any Official of the State of Connecticut's Department of Energy and Environmental Protection.

Number three - During the burn, all reasonable measures to assure complete combustion and reduce excessive smoke are to be taken. As indicated in a previous slide, this condition was amended in the template for vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space. In this template, the following narrative is found: *All reasonable measures to assure complete combustion and reduce excessive smoke are to be taken*. Because of the nature and purpose of this type of fire, the area being burned is not contained as an open burning for fire training or the other types of burns.

Number four - At the completion of the burn period, all embers and coals shall be extinguished so as to prevent excessive smoke and fugitive ash emissions.

Number five - All reasonable safety precautions shall be taken and fire suppression/control equipment shall be immediately available.

Number six - This permit must be immediately available on site during the burn.

Number seven - Burning may only be conducted between the hours of 10:00 a.m. and 5:00 p.m. on a sunny or partly sunny day with wind speed between five and fifteen miles per hour. As indicated in a previous slide, this condition was amended in the template for the eradication or control of insect infestations or disease. Two sentences were added which read: *There may be exceptions. This condition may change based on best management practices for the activity proposed.* It is noted here that the start and end times have been established to reflect optimum times for burning to be conducted based on ambient conditions, and environmental and safety considerations. A 10 am start allows for conditions to occur where the temperature and air inversions allow for better air mixing and dispersion. A 5 pm end requires the Permittee to plan and implement measures to ensure the burn is completely extinguished so as to prevent excessive smoke and fugitive ash emissions and before the evening temperature inversion begins.

Number eight - Burning shall not create a nuisance to nearby properties.

Slide 15 – Overview of the Permit Conditions (Cont)

Under the **Special Conditions: Applicable if Checked by the local open Burning Official**, the following narrative is listed:

- Burning may be initiated only in the presence of the Open Burning Official.
- A fire crew and appropriate apparatus must be stationed at the burning site prior to ignition.
- Burning may not take place when the wind is from a certain direction.
- Final verbal approval must also be obtained on the day of and prior to the burning by calling a designated municipal official, such as the local Open Burning Official or Town Fire Marshal.
- Burning must be conducted for a specified number of day and/or days and between the following dates listed out by month, day and year. Municipalities have a range of time periods – some permits are good for a one week period, others for more than that. Regardless, the permit is issued only for the dates set down on that Permit. If the Permittee cannot burn due to unsuitable Air Quality and/or unsuitable fire index, the Permit expires and becomes null and void.
- Violation of the terms and conditions of this permit may cause the forfeiture of your ability to qualify for a permit in the future. Municipalities should have in place an open Burning Ordinance that would provide the basis for this condition.
- Other conditions as listed by the local Open Burning Official. Some municipalities require the Permittee: to notify the Fire Department Central Dispatch and/or the Town Fire Marshal's Office on the day of, prior to the burning, and at the completion of the burn.

Slide 16 – Application/Permit Templates (Cont)

The **Final Decision section** includes a prompt for the local Open Burning Official prior to making their final decision.

The **Prompt** begins with the narrative - "In evaluating this application, did the Open Burning Official find it necessary to consult with" To consult is to seek advice or information. The Prompt is intended to serve as a reminder to Open Burning Officials that key resource contacts have been made available should they need technical assistance when evaluating an application. The prompt is discretionary – it is the judgment of the Open Burning Official to determine if additional information from the identified key resource contacts is necessary in their evaluation of an application. The Open Burning Official can decide on the application regardless if no consultation was made. If a consult was made, the information provided could result in positive, negative or conflicting comments. The Open Burning Official must weigh the information gathered and must make a decision within the context of regulating the control of open burning, ensuring public health and safety and minimizing adverse impacts to residents and the environment. Key resource contacts are identified later in this module.

This Final Decision section includes two check boxes that the Open Burning Official must complete. One check box is to indicate that the Permit has been GRANTED. The other check box is to indicate that the Permit has Not been GRANTED and the reason or reasons for not granting a permit must be identified.

And finally, the **Signature/Town/Date section** is where the Open Burning Official must sign and date the form.

Slide 17 – Specific Activity -Application/Permit Template Forms and Relevant Background Information

Application/Permit templates have been developed and background information has been provided. The Application Section contains requested information data fields to be completed by the Applicant. Specific to the activity, the requested information data fields focus on gathering the information and documentation necessary to understand what the Applicant is proposing and to determine potential impacts and eventual outcome. The intent is to place the burden on the Applicant to submit a complete application and demonstrate compliance of State and local regulatory requirements concerning their proposed regulated activity.

For each of the model Application/Permit templates, the Applicant is requested to provide a sketch map showing the following:

- ❖ Geographic North.
- ❖ Property line boundaries; proposed burn location; distance to nearest grasslands or woodlands.
- ❖ Nearest public roads, structures and occupied dwellings and distances (potential recipients that could be impacted by the burn, smoke, flying embers, brands - which are pieces of burning or charred wood - or radiant heat; potential runoff into catch basins, streams, rivers, and waterbodies.
- ❖ Other flammable or combustible materials including liquid and/or gaseous storage above or below ground on-site or upon abutting or adjacent properties.
- ❖ Any hazards (i.e. overhead utilities).
- ❖ Other

The sketch map is useful information to the Open Burning Official both in the office and in the field. The sketch map can provide context as to the extent of the proposed burn and can flag potential issues that may arise during and after the burn activity. By looking at the sketch map, an Open Burning Official can determine if the proposed location of the burn will assure no adverse environmental impact or public safety issue. There have been cases where fish kills have occurred. By locating the burn pile too close to a water body, the runoff that

was created during the act of extinguishing the embers and coals of the burn pile entered the receiving waterbody. This resulted in decreased oxygen levels in the water, causing a fish kill. In addition, distance to nearest grasslands and woodlands can be and is used by an Open Burning Official as an assessment for fire control.

Slide 18 – Specific Activity -Application/Permit Template Forms and Relevant Background Information

As part of the application process, it is strongly recommended that the local Open Burning Official conduct a site inspection. Critical to the review and consideration of a submitted application and its supporting documentation, are actual onsite conditions. Narrative put on paper may not adequately capture relevant issues more readily seen and observed in the field. The local Open Burning Official must obtain permission from the Applicant to enter the property and should then schedule with the applicant a date and time when the site inspection can be conducted.

An approach to obtain such permission is via the Application Form itself and local Open Burning Officials may want to add language to their form. Sample authorizing language can be as follows: “I hereby authorize the Open Burning Official to conduct a site inspection for the purposes of understanding existing property conditions, which may be necessary in order to make a decision on this application. Such site inspection will be conducted at reasonable times.” The Applicant would then provide their signature.

The Permit Conditions Section contains the parameters under which open burning may occur should a permit be granted to the Applicant, now referred to as the Permittee.

Background information for each of the activities is provided to give some context and identify potential adverse environmental impacts and potential public health and safety issues that should be considered when evaluating an application.

The next series of slides will now go into each of the model templates and identify the application information data fields that the Applicant is requested to fill out, the “prompt” associated with that specific activity and background information.

Slide 19 – Specific Activity - Fire Training Exercises

This slide and the next will go over the model application/permit template that may be used by the local Open Burning Official when considering an application to conduct open burning for the purpose of “Fire Training Exercises”. Under the Applicant Information section, the Applicant is being requested to provide the following:

- Applicant contact information including address; email; and phone numbers. The Applicant must sign the form.
- The street address of the proposed burn.
- The Date and Time of the proposed fire training.
- Written Documentation of the following:
 - Type and description of the proposed Fire Training Exercise activity. Such training could cover live fire training evolutions in structures, whether whole or partial structural fires, or other types of live training such as motor vehicles, other types of conveyances, dumpster fires, flammable/combustible liquids or other.

- The Purpose, Goals and Objectives of Training Exercise. A written statement should indicate that the training will be in accordance with National Fire Protection Association (NFPA) 1403 and all supporting documentation should be provided.
- Sign-off by the Fire Chief for the proposed training exercise.
- Any environmental issues prior to conducting the exercise and resolution of issues. Examples of issues include, but are not limited to, the following: materials management issues such as asbestos, chemicals, Freon, lead-based paint, mercury, PCBs, treated wood; public health and safety issues to adjacent properties and at risk populations; measures taken to reduce or eliminate toxic emissions; and runoff to catch basins and/or waterbodies.
- All other required permits have been obtained along with any other required notification forms. For example, if the fire training exercise is for a structural burn, then a local demolition permit will be required.
- Proof of ownership of the property on which the open burning is proposed to occur. Authorization from the property owner to conduct the proposed burn. An Affidavit attesting that there is no insurance on the structure; and any other documentation as deemed necessary by State and local government officials; and
- Notification to adjacent property owners prior to proposed burning.

Other data fields include:

- A description and quantity of materials to be burned.
- Any other information as required by the Open Burning Official. In the case where vehicle live fire training is being conducted, NFPA 1403 should be followed and proper documentation concerning the vehicle, as well as an Affidavit attesting that there is no insurance on the vehicle should be provided. And finally,
- A Sketch Map should be provided.

Slide 20 – Specific Activity: Fire Training Exercises

Continuing with the Model Application/Permit Template Form, the Applicant has completed their part of the form and now it is the responsibility of the Open Burning Official to complete the rest of the form.

As indicated and presented earlier in this module, the Permit Conditions include the General Statements, when the Permit is Not Valid under certain Conditions, the General Conditions that are applicable to all Permits, and the Special Conditions if checked by the local Open Burning Official.

For this specific activity, the Prompt reads as follows: *In evaluating this application, did the Open Burning Official find it necessary to consult with the local Fire Marshal for his/her review and comment regarding the proposed activity?* The check box is a Yes or a No.

The decision section indicates the outcome of either the permit is granted, or not granted with reasons provided.

Lastly, the Open Burning Official will sign and date the form.

Slide 21 – Background Information: Fire Training Exercises

Background information related to live fire training exercises is provided. It is the responsibility of the applicant to understand, demonstrate and ensure that steps will be taken to legally and safely conduct a live

fire training exercise and will conform to all federal, state and local requirements and regulations. The Open Burning Official must be knowledgeable of federal, state and local requirements and regulations in considering such an application.

Some general comments follow:

Fire Training Exercises take place at the Connecticut Fire Academy, the nine independent Regional Schools and at the local level. Training exercises at the State and regional schools provide for a more controlled setting with regard to environmental management and environmental emissions.

Steps must be taken to legally and safely conduct a live fire training exercise. Training should be conducted in accordance with the National Fire Protection Association 1403 Standard. As such, written documentation presenting the purpose, goals and objectives of the training exercise needs to be prepared and submitted by the Applicant.

Associated with Fire Training Exercises is the potential for adverse public health, safety and environmental impacts. Failure to address the risk and manage the hazards appropriately can result in: exposures to firefighters and nearby residents; contaminated ash/debris resulting from the fire and complicated/increased cost of disposal; and violations of federal and State public health and environmental requirements that could lead to enforcement action.

Structural burns in particular present a significant concern with regard to both public health and environmental compliance. When conducting a structural burn, pre- and post- burn activity must follow hazardous material protocols. A full environmental survey must be done to identify any potential issues. It is important to determine the hazards that may exist and remove them prior to burning or to decide not to conduct such a burn due to the public health and environmental exposure risk(s).

Slide 22 – Background Information: Fire Training Exercises (Cont)

Continuing with general comments:

The intentional burning of a structure is considered to be a “demolition” activity. As such, there are federal, State and local regulatory requirements and environmental, health and safety requirements that the Applicant must comply with prior to conducting a burn, as well as post burn in dealing with the potentially contaminated ash and debris resulting from the fire. The local Open Burning Official should be aware of these requirements so that if the proposed activity is permitted, public health and safety is ensured and potential adverse impacts to residents and the environment are minimized.

For anyone considering such a fire training exercise, it is recommended that they hire a qualified and where required, licensed consultant to perform the **required** pre-demolition asbestos, lead, and hazardous materials surveys of the building before they make their decision as to whether or not to go ahead with the exercise. If the results of this survey indicate that it would be too costly or impractical to pursue a fire training exercise, then they will know this before they have made any commitments, or spent much time, effort, or money planning for the event.

Slide 23 – Background Information: Fire Training Exercises

The following slides will cover environmental requirements and best management practices for live fire training exercises on structures.

It is the recommendation of the State of Connecticut Department of Energy and Environmental Protection that, whenever possible, not to do full consumptive burns, but instead to do small, limited burns associated with

particular exercises, for example a kitchen fire, chimney fire, or bedroom, and then demolish the building in the traditional manner afterwards. Even if the open burning of the entire structure is done properly with respect to the federal, State and local requirements, it still releases fumes, gases, and particulates to the air, and can be a nuisance and a hazard to neighboring properties. As a result, it should be minimized as much as possible.

Some of the materials that can pose hazards include, but are not limited to, the following:

- Asbestos
- Chemicals
- Freon
- Lead/Lead-Based Paint
- Mercury
- Polychlorinated Biphenyls (PCB's)
- Treated Wood
- Underground Storage Tanks (UST's)
- Used Electronics and Batteries

The Department has prepared and made available online two documents to assist local officials and individuals concerning renovation and demolition activities. The first document is entitled *Renovation & Demolition: Environmental, Health & Safety Requirements You Should Know About*. This document identifies some of the more common and important of these requirements. In this document, not every possible requirement is listed and the information presented is only intended as a helpful summary. However, this document does provide links to federal and state agencies that can provide further assistance and information. The second document is entitled *Renovation and Demolition - "Red Flag" List*. This list has been designed as an aide to local officials involved in renovation and demolition. The list identifies three parameters – asbestos, lead paint and safety/other; presents potential problems associated with each; and provides contact numbers of federal and State agencies that have regulatory oversight dealing with that specific problem. Much of the information that follows has been taken from these documents.

Slide 24 – Background Information: Fire Training Exercises

Asbestos may be present in many building materials including, but not limited to, pipe, boiler, or tank insulation, plaster, flooring, siding, and roofing.

The State of Connecticut's Department of Public Health has requirements for notification, licensing and abatement of asbestos. A notification for demolition or for asbestos removal must be submitted to this Department for buildings that are subject to an open burn. The results of the asbestos inspection will dictate the type of notification form that must be filed. It is recommended that the Department's Asbestos Program be contacted to discuss applicable regulatory requirements including, but not limited to, notification, work practice, and licensing requirements. A member of the Asbestos Program staff is available daily to respond to public inquiries and their phone number and the Program website is listed in the Key Contacts at the end of this module.

A structural burn for fire training purposes is subject to the provisions of the Asbestos National Emission Standards for Hazardous Air Pollutants, commonly referred to as NESHAP, regardless of the type and condition

of the structure. It is important to emphasize that the burning of a residential structure is considered by the US EPA to be a change of use of a structure and is subject to Asbestos NESHAP.

As required by the asbestos NESHAP, the structure must be thoroughly inspected to determine the presence of asbestos **prior to the burning** of the structure. The scope of inspection must cover *all* materials in the structure that will be affected by the work. The inspection must be conducted by a licensed asbestos consultant as required by the State of Connecticut Department of Public Health and be certified as either an inspector or management planner. Connecticut's e-licensing system can generate a roster of licensed inspectors and inspector/management planners via the look up a license feature. See key contacts at the end of this module for the e-licensing system webpage.

All asbestos-containing materials, commonly referred to as ACM, identified as a result of the asbestos inspection must be removed from the building prior to the burning of the facility, as required by the asbestos NESHAP.

Slide 25 – Background Information: Fire Training Exercises

Continuing with Asbestos,

A form for the notification for demolition or a form for asbestos abatement must be submitted to the State of Connecticut's Department of Public Health for buildings that are subject to an open burn. The results of the asbestos inspection will dictate the type of notification form that must be filed with the State.

The next slide presents a table summarizing the State of Connecticut's Department of Public Health requirements based upon the results of the asbestos inspection. Note that as dictated by the results of the inspection, the State of Connecticut's Department of Public Health should receive either the *Demolition Notification Form* or the *Asbestos Abatement Notification Form*, but not both for a single structure.

A Demolition Notification Form must be submitted to the State Department of Public Health. The form must be post-marked or hand delivered at least ten days prior to the scheduled date for burning the structure. An Asbestos Abatement Notification Form must be submitted to the State Department of Public Health. The form must be post-marked or hand delivered at least ten days prior to the scheduled start date for asbestos abatement.

There is a fee associated with the submission of each of the notification forms and the forms are available by going to the State Department of Public Health Asbestos Program web site.

Again, it is the Applicant's responsibility to comply with the Department of Public Health requirements. The Open Burning Official should be aware that these requirements exist.

The State of Connecticut's Department of Energy and Environmental Protection has as a requirement that Asbestos must be disposed of as a "Special Waste". Asbestos waste can only go to approved facilities for disposal.

Slide 26 – Background Information: Fire Training Exercises

This slide provides a summary of the State of Connecticut's Department of Public Health requirements based upon the results of the asbestos inspection. The table headings include the inspection finding, the actions necessary and the notification requirements.

Under the finding of **No Asbestos Present**, if the inspection determines that the structure contains no asbestos containing materials, a Demolition Notification Form must be submitted to the State Department of Public Health.

Under the finding of **No more than three linear feet or no more than three square feet of asbestos containing materials present**, the ACM must be removed under the requirements for “spot repairs” detailed in Section 19a-332a-10 of the Regulations of Connecticut State Agencies. The individual or entity removing the asbestos containing materials is not required to be licensed by the State Department of Public Health as an asbestos abatement contractor. A Demolition Notification Form must be submitted to the State Department of Public Health.

Under the finding of **More than three linear feet or more than three square feet of asbestos containing materials present but not more than ten linear feet or no more than twenty-five square feet of asbestos containing materials**, the asbestos containing materials must be removed by an asbestos abatement contractor licensed by the State Department of Public Health. Asbestos removal must be conducted in accordance with the requirements of the State Department of Public Health’s Standards for Asbestos Abatement Regulation Sections 19a-332a-1 through 19a-332a-16, inclusive. A Demolition Notification Form must be submitted to the State Department of Public Health.

Under the finding of **More than ten linear feet or more than twenty-five square feet of asbestos containing materials present**, the asbestos containing materials must be removed by an asbestos abatement contractor licensed by the State Department of Public Health. Asbestos removal must be conducted in accordance with the requirements of the State Department of Public Health’s Standards for Asbestos Abatement Regulation Sections 19a-332a-1 through 19a-332a-16, inclusive. An Asbestos Abatement Notification Form must be submitted to the State Department of Public Health.

Slide 27 – Background Information: Fire Training Exercises

The next three slides briefly summarize the requirement for a visual inspection and air sampling following the removal of asbestos. It is important to stress that no matter where the material is located – exterior or interior to the facility – or the initial nature of the material – friable versus non-friable – the material must be removed before the intentional burning of the facility.

With regard to the Removal of Exterior Non-Friable Asbestos-Containing Material, a non-friable material is a material that cannot be crumbled, crushed, pulverized, or reduced to powder by hand pressure. An exterior non-friable ACM **may** include asbestos transite siding and roofing materials.

Under specific conditions, the removal of certain non-friable Asbestos-Containing Material that is located exterior to a facility does not constitute asbestos abatement as defined by Connecticut General Statutes Section 19a-332.

If any exterior non-friable Asbestos-Containing Material is identified as a result of the asbestos inspection conducted prior to the fire training exercise, the individual responsible for the training exercise should contact the Department of Public Health Asbestos Program at (860) 509-7367 to discuss the specific regulatory requirements that are applicable to the removal of that material.

With regard to Post Abatement Requirements for “Interior Asbestos Abatement Involving 3 Linear/ Square Feet of Asbestos Containing Material or Greater”, the following discussion will cover issues found under the scenarios: re-occupancy of space; and no re-occupancy of space:

Under Re-occupancy of Space, for example access to area for fire training, a visual inspection must be conducted by a Department of Public Health licensed project monitor (asbestos consultant) to ensure that no

visible residue is present in the work area. Once the project monitor determines that no visible residue is present, post abatement re-occupancy air sampling must be conducted in accordance with Section 19a-332a-12 of the Standards for Asbestos Abatement.

Slide 28 – Background Information: Fire Training Exercises

Continuing with Post Abatement Requirements,

Under the No Re-occupancy of Space, a visual inspection must be conducted by a Department of Public Health licensed project monitor to ensure that no visible residue is present in the work area. No post abatement air sampling is required. However, the asbestos contractor must maintain the integrity of the asbestos work area containment and post asbestos warning signs until the facility is demolished.

Given that it is extremely rare to have **no reoccupancy** of the facility during the period of time between the completion of an asbestos abatement project and the demolition of a facility, the Department of Public Health strongly recommends that post abatement reoccupancy air sampling be conducted for all interior asbestos abatement projects.

Please Note that for interior asbestos abatement involving up to 3 linear or up to 3 square feet of Asbestos containing material (considered to be a “spot repair”), the entity removing the Asbestos containing material must ensure that no visible residue is present in the work area. Department of Public Health regulations do not require that a DPH licensed project monitor make that determination.

Slide 29 – Background Information: Fire Training Exercises

With regard to the Removal of Exterior Asbestos-Containing Material, Department of Public Health post abatement re-occupancy criteria do not apply. Therefore, the Department of Public Health has no authority to mandate a post abatement visual inspection by a Department of Public Health licensed project monitor (asbestos consultant).

However, the facility owner and/or the operator of the demolition (fire department) is/are required under the asbestos NESHAP to remove all Asbestos containing material (interior and exterior) prior to the intentional burning of the facility. Given this requirement, a visual inspection by a licensed project monitor with a related report detailing the findings that all Asbestos containing material has been removed would be beneficial to the facility owner and operator to document compliance with that provision.

The Department of Public Health issued a circular letter titled EHS #2010-48 regarding its regulatory interpretation of post asbestos abatement re-occupancy criteria and it can be found on the State Department of Public Health website.

Slide 30 - Background Information: Fire Training Exercises

With regard to chemicals, residential structures, and chemical and industrial sites may contain chemicals and any such chemicals must be identified, removed, and properly disposed of prior to burning the building.

Residential structures may contain cleaning products, paints, stains, fuels, pesticides, solvents, oils, and waxes. Although household wastes are not subject to hazardous waste requirements, most of these products may not be disposed of with regular trash. In many cases, these materials may be disposed of at a local household hazardous waste collection center or one-day collection event.

Commercial and industrial sites may have process chemicals, oils, cleaning products, or other chemical products stored inside them. Many of these products may be classified as hazardous waste when disposed, and

most others may not be disposed of with regular trash. These materials must be shipped to a permitted disposal facility by a licensed transporter.

With regard to Freon, this material may be found in air conditioning and refrigeration equipment. There is an EPA Rule to prevent the unregulated release of Freon into the air. Freon must be removed by an EPA-licensed contractor prior to burning, and properly recycled or disposed of at an approved facility. Once the Freon is removed, the equipment may be sent to a scrap metal dealer for recycling.

Slide 31 – Background Information: Fire Training Exercises

With regard to Lead, although lead-based paint was banned for residential use in 1978, many houses built before 1978 contain lead based paint. It can be found on interior and exterior surfaces, windows, doors, and trim and can be found on almost any material – wood, metal, vinyl, plaster and others. Windows can contain both lead and asbestos, especially found in the glazing compound.

The State of Connecticut’s Department of Energy and Environmental Protection has disposal requirements. In order to ensure proper disposal, the structure must be inspected for lead prior to burning. All lead inspections must be performed by a State of Connecticut certified lead inspector or lead inspector risk assessor employed by a State of Connecticut Department of Public Health licensed lead consultant.

It is difficult to obtain a representative sample. The State of Connecticut’s Department of Energy and Environmental Protection recommends one of four test methods: Screen, sample and segregate; screen and segregate; composite-sample and demolish; and remove, cut and sample. The least reliable is demolish and test. Depending on the levels found, certain disposal requirements will be required. If the concentration of lead is found at levels greater than 5 parts per million it must be treated as a hazardous waste; if the concentration of lead is found to be less than 5 parts per million, it must be treated as a solid waste. Scrap metal, for example flashing, painted steel beams, can go to a scrap yard for recycling.

In general, it is the concentration of lead in the building that matters, not in the paint itself. Whole buildings usually test non-hazardous but not always; hence the need to test to be sure. Individual components may vary widely in lead concentrations.

If any lead-based paint is identified, it needs to be further tested. Additional testing will determine if the paint contains sufficient levels of lead to be classified as hazardous waste.

Even if the paint does not contain hazardous levels of lead, the debris remaining after the fire may have changed composition such that it is now hazardous waste. As a result, such debris must be tested again after the burn, and if high enough in lead content, disposed of according to hazardous waste procedures.

If material is classified as a hazardous waste, it cannot be burned. The open burning of hazardous waste is illegal in the State.

Slide 32 – Background Information: Fire Training Exercises

With regard to mercury, it can be found in fluorescent lamps, thermostats, mercury switches, manometers, natural gas meters, and other items. These items may contain enough mercury to be classified as a hazardous waste, and may therefore not be disposed of as regular trash. Per State Regulations, lamps and thermostats are eligible for management under a special set of hazardous waste requirements known as the Universal Waste Rule. Mercury containing items must be removed and properly disposed of prior to burning.

Polychlorinated biphenyls are referred to as PCBs. PCBs are a class of chemicals known as polychlorinated biphenyls. Under the Toxic Substances Control Act, Congress in large part banned the manufacturing,

processing, distribution, and use of PCBs after January 1, 1978. The State of Connecticut banned the manufacture of PCBs and began regulating them effective July 1, 1976. Both EPA and Connecticut, although banning their manufacture, allowed equipment containing PCBs to continue in use for the remainder of their useful lives.

PCBs were used in many different products, including but not limited to, the following: various electrical components, appliances, transformers, capacitors, fluorescent light ballasts and other oil-containing equipment, and in certain building materials (found in both residential and non-residential structures), such as asphalt roofing materials/tar paper; wood floor sealants; paints, caulking, and insulated coatings.

PCBs are not classified as hazardous waste, but are regulated under a separate set of requirements.

PCB containing items must be managed and properly disposed of in accordance with special PCB requirements as found under the federal Toxic Substance Control Act requirements and the State's disposal rules, also referred to as Connecticut regulated waste.

Slide 33 – Background Information: Fire Training Exercises

With regard to Treated Wood, this type of material includes pressure treated wood, and wood that has been treated with creosote or an insecticide called pentachlorophenol. Pentachlorophenol is a hazardous waste if concentration is high enough and must be disposed of properly. Pressure treated wood may contain the toxic metals chromium or arsenic. Pressure treated wood may not be buried or burned on-site or processed into mulch, but must instead be sent to a permitted facility for disposal.

With regard to Underground Storage Tanks, Commercial and industrial sites (also referred to as non-residential) often have underground storage tanks that may be subject to certain federal and State regulations for registration and notification of removal or abandonment. While residential underground storage tanks are not subject to State of Connecticut Department of Energy and Environmental Protection regulations, they are subject to local regulatory control. The applicant should contact their Town's local Fire Marshal to determine local regulations or ordinances governing the removal of a residential heating oil underground storage tank.

- RCSA Sections 22a-449(d)-1 and RCSA Sections 22a-449(d) 101-113 govern Underground Storage Tank Management.

Slide 34 – Background Information: Fire Training Exercises

Continuing with Underground Storage Tanks, the State of Connecticut's Department of Energy and Environmental Protection recommends that Residential underground storage tanks be removed or abandoned by following the commercial (non-residential) requirements per RCSA 22a-449(d)- 107(b), which includes sampling of underlying soils, and possibly ground water, to determine if there have been any releases to the environment.

Any discovery of contamination resulting from residential underground storage tanks, including the remediation of such contamination is regulated by the State of Connecticut's Department of Energy and Environmental Protection. Non-residential underground storage tanks, including those used to store fuel oil, petroleum and certain chemical liquids, are regulated by the State Agency. All discoveries, including evidence or releases to the environment from non-residential and residential underground storage tanks, must be immediately reported to the State of Connecticut's Emergency Response Unit at 860-424-3338 and corrective action in accordance with RCSA Section 22a-449(d)-106 must be undertaken.

With regard to Used Electronics and Batteries, used electronics such as TVs, computers, microwaves, and other items, often contain toxic metals such as lead that can be released if they are burned. Batteries, including

but not limited to automobile batteries and household rechargeable batteries, contain metals such as lead, cadmium, and nickel that can be present at hazardous levels. These items must be identified and properly disposed of prior to burning. Municipal transfer stations can often accept residential used electronics and batteries for recycling.

Slide 35 – Background Information: Fire Training Exercises

There are other environmental concerns related to fire training performed on acquired structures. These include toxic air emissions, withdrawal of water for fire training exercises, and runoff to waterbodies and/or catch basins.

With regard to toxic air emissions, strong consideration must be made with regards to potential toxic and harmful air emissions from materials being burned such as asphalt shingles, vinyl siding, and wiring. Also, the burn should not create a nuisance to nearby properties.

With regard to the withdrawal of water for fire training exercises directly from waterbodies, when withdrawing less than 50,000 gallons per day, no State Diversion Permit is required. However, contact should be made with local agencies, either Inland Wetland Commission or Conservation Commission, to verify what if any specific local ordinance may apply in the town. If using a temporary structure, care needs to be taken to avoid degradation of habitat through disturbance and drying out of small waterbodies. Specifically, care must be taken to insure that there is no disturbance of streambanks or stream bottoms.

With regard to runoff to waterbodies and/or catch basins, in the planning of an exercise, the structure must be located where all the water can be collected or infiltrated. The discharge cannot be directed to surface water without specific authorization from State of Connecticut's Department of Energy and Environmental Protection. Discharging drill - fire fighting foam or training waters to a surface waterbody is a clear and enforceable violation of State Statute (CGS Section 22a-430) and State regulations. Similarly, no discharges can be directed to a wetland without proper authorization.

Slide 36 – Background Information: Fire Training Exercises

The State of Connecticut's Department of Energy and Environmental Protection Water Permitting and Enforcement Program has developed guidance for disposal of fire fighting foam training water.

Generally, older foam products may have a petroleum base and were frequently found to have levels of toxic metals that could affect aquatic organisms. Manufacturers continuously evolve their formulations and market training foam specifically designed to minimize environmental impacts. Newer products typically are more benign, but still pose some risk associated with aquatic toxicity and dissolved oxygen depletion. Even if a manufacturer claims that a product is biodegradable, it does not mean that there will be no impact on the environment, especially if handled improperly. The MSDS for product safety information must be reviewed.

The Department's preference is for training to be conducted at a permanent regional training facility where discharges are directed to the sanitary sewer or recycled, and have a valid State wastewater discharge permit.

All fire foam disposal must be performed in a manner which prevents the direct discharge of foam and water to a stream, river, or other surface waterbody. Foam and water must not enter a stormwater catch basin because the vast majority of storm drains discharge ultimately to a surface waterbody.

If a fire company will be conducting training in areas without access to a sanitary sewer, the foam and water may in some cases be directed to a vegetated area large enough to receive and infiltrate all the foam and water into the ground.

Slide 37 – Background Information: Fire Training Exercises

With regard to Public Health and Safety, in conducting fire training exercises, the applicant must comply with all applicable safety and health protection codes, laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss.

Among the public health and safety actions that should be taken include but are not limited to, the following:

- Utilities which include water, natural gas, propane tanks, and electrical should be secured;
- Above and underground tanks - oil, gas, propane - should be removed and properly disposed. Those tanks that cannot be removed should be vented to prevent an explosion or rupture; and
- Asphalt shingles and vinyl should be removed. If this cannot be safely performed, then the structure should not be burned.

Similar to structural burns, when vehicle live fire training is being conducted, it should be done in compliance with NFPA 1403. As with structure fires, significant planning and preparation must be undertaken and proper preparation of a vehicle must be made. Legal documentation with regard to title, insurance and other documents as deemed necessary by state and local government officials must be addressed by the Applicant and be made available to the Open Burning Official. Hazardous materials and tires need to be properly addressed. For example, batteries should be removed and properly disposed; oils, fluids and fuels should be removed, drained and properly disposed; interior upholstery should be removed and properly disposed; and other related items to ensure proper management. Great care should be taken with this type of burn.

Slide 38 – Specific Activity: Eradication or control of insect infestations or disease - Form

This slide and the next will go over the model application/permit template that may be used by the local Open Burning Official when considering an application to conduct open burning for the purpose of “eradication or control of insect infestations or disease”. Under the Applicant Information section, the Applicant is being requested to provide the following:

- Applicant contact information
- The street address of the proposed burn
- The Date and Time of the proposed burn. While this information is provided by the Applicant to indicate their preferred time table, there is no guarantee that the dates requested can be assigned by the Open Burning Official.
- A description and purpose of the proposed activity including strategy to be undertaken.
- The method and equipment immediately available to control and extinguish the burn
- Written Documentation provided of the following:
 - Insect infestation or disease has been identified by an expert in the field;
 - Justification that open burning is the preferred management practice;
 - Proof of ownership of the property; Property owner’s authorization to conduct the proposed burn;

- Notification to adjacent property owners prior to the proposed burn; and
 - Any other information as required by the Open Burning Official.
- A Sketch Map

Slide 39 – Specific Activity: Eradication or control of insect infestations or disease – Form (Cont)

Continuing with the model application/permit template, the Applicant has completed their part of the form and now it is the responsibility of the Open Burning Official to complete the rest of the form.

As presented earlier in this module, the Permit Conditions include the General Statements, when the Permit is Not Valid under certain Conditions, the General Conditions that are applicable to all Permits, and the Special Conditions if checked by the local Open Burning Official. For this specific activity, language was added (on the slide found in bold italic) to the General Condition, number seven and reads as follows: Burning may be conducted between the hours of 10:00 A.M. and 5:00 P.M. on a sunny or partly sunny day with the wind speed between five and fifteen miles per hour. **There may be exceptions. This condition may change based on best management practices for the activity proposed.*

For this specific activity, the Prompt reads as follows: *In evaluating this application, did the Open Burning Official find it necessary to consult with the Connecticut Agricultural Experiment Station?* The check box is a Yes or a No. The Connecticut Agricultural Experiment Station's Department of Plant Pathology and Ecology conducts research on diseases of many types of plants important to the residents of Connecticut. This Department diagnoses plant health problems for growers and the public. A major component of the Department involves service to the public. Their objective is to assist all Connecticut residents, including homeowners, plant care professionals, and commercial growers with diagnosing plant health problems.

The decision section indicates the outcome of either the permit is granted, or not granted with reasons provided.

Lastly, the Open Burning Official will sign and date the form.

Slide 40 –Eradication or control of insect infestations or disease – Background Information

Background information related to the eradication or control of insect infestations or disease is provided.

The use of managed open burning as a management tool to control or eradicate an insect infestation or disease can be effective against certain species and types of diseases. However, in Connecticut this is a small universe where this type of burn management practice would be the most appropriate to use in eradicating or controlling insect infestations or disease.

Connecticut has experienced periodic occurrences of major tree diseases leading to widespread tree death. These outbreaks are usually due to a non-native insect or disease arriving in Connecticut and spreading rapidly, and often fatally, throughout the existing tree population. Examples include the following: Chestnut Blight, Dutch Elm Disease, Gypsy Moth, Hemlock Woolly Adelgid, and most recently, the Emerald Ash Borer. Potential problem organisms threatening Connecticut include the Asian Longhorned Beetle and Ramorum blight, sometimes called Sudden Oak Death.

It is the Applicant's responsibility to provide to the local Open Burning Official written documentation that an insect infestation or disease exists at the site of the proposed burn. The written documentation must indicate that the insect infestation or disease has been identified by an expert in the field. The problem must be properly documented, and where appropriate documented with samples that have been positively identified.

Disease diagnosis involves visual assessment, sample assessment, and other procedures as necessary. The documentation must also indicate that open burning is the preferred management practice to address the problem.

The following two slides present two tables. The first table provides examples of the types of insects and diseases commonly found in Connecticut and that may be controlled or eradicated through the use of open burning as a management practice. The source of this information is the Connecticut Agricultural Experiment Station and the State of Connecticut Department of Energy and Environmental Protection as of March 2013. The second table indicates the high risk insects and diseases threatening Connecticut and where open burning may be an effective management practice. The source of this information is the Connecticut Agricultural Experiment Station and the State of Connecticut Department of Energy and Environmental Protection Forestry Division as of March 2013.

Slide 41 – Eradication or control of insect infestations or disease - Background Information

Please read through this table to become familiar with the types of insects and/or diseases that are present in the State now and which may be controlled or eradicated through the use of open burning as a management practice. As you can see, the list is not exhaustive and while there may be other insects and diseases that pose problems, the Applicant needs to provide compelling reasons and written documentation supporting their application submittal. The Applicant should provide the documentation necessary to justify open burning to address the specific insect and/or disease problem.

Slide 42 –Eradication or control of insect infestations or disease - Background Information

Please read through this table to become familiar with the types of insects and/or diseases that, with the exception of the Emerald Ash Borer that has been found in New Haven County, are not yet confirmed to be in Connecticut but are considered to be high risk in threatening the State.

Slide 43 –Specific Activity: Agricultural Purposes - Form

This slide and the next will go over the model application/permit template that may be used by the local Open Burning Official when considering an application to conduct open burning for an “agricultural purpose”. Under the Applicant Information section, the Applicant is being requested to provide the following:

- Applicant contact information.
- The street address of the proposed burn.
- The date and time of the proposed burn.
- A yes or no answer to the following question: “Is the property where the proposed activity is to occur an agricultural and/or farming operation as defined in Chapter 1, Connecticut General Statute Section 1-1(q).
- A brief description of the proposed activity.
- A justification that the proposed activity is necessary and supports an Agricultural Purpose.
- A description of the material and the quantity of material to be burned.
- A brief description of the methods and equipment immediately available to control and extinguish the burn.

- A Sketch Map; and
- Additional information only if it is requested by the Open Burning Official, specifically: Documented Proof of Ownership of the property on which the burn is proposed to occur; this could consist of a copy of the following documents – the Assessor’s Card, Title, Deed. If the applicant is not the Owner of the Property, then documented proof of ownership of the property on which the burn is proposed to occur and authorization from the property owner to conduct the proposed burn. Documented proof of notification to adjacent property owners prior to the proposed burning. And any other information as required by the Open Burning Official.

Slide 44 – Specific Activity: Agricultural Purposes – Form (Cont)

Continuing with the model application/permit template, the Applicant has completed their part of the form and now it is the responsibility of the Open Burning Official to complete the rest of the form.

As presented earlier in this module, the Permit Conditions include the General Statements, when the Permit is Not Valid under certain Conditions, the General Conditions that are applicable to all Permits, and the Special Conditions if checked by the local Open Burning Official.

For this specific activity, the Prompt reads as follows: *In evaluating this application, did the Open Burning Official find it necessary to consult with the State of Connecticut’s Department of Agriculture to determine if the proposed activity is an agricultural or farm related operation and the burn supports an agricultural purpose?* The check box is a Yes or a No.

The decision section indicates the outcome of either the permit is granted, or not granted with reasons provided.

Lastly, the Open Burning Official will sign and date the form.

Slide 45 –Agricultural Purposes – Background

It is critical that the Open Burning Official has a good understanding of the terms “agriculture” and “farming”. Agriculture and farming is defined by the Connecticut General Statutes, Section 1-1(q).

Please take the time now to read Section 1-1(q).

Slide 46 - Agricultural Purposes – Background Information

Connecticut farmers depend on productive agricultural land to optimize their potential harvest.

There are circumstances where farmers may need to conduct open burning. These include - clearing brush and unwanted plant material from hedgerows and cropland, reclamation of previously active farmland to enhance existing or establish new farming operations, control of invasive plant material and invasive plant seed, control of insects and diseases, and pruning and culling of fruit trees, bushes, and Christmas trees.

Open burning is a tool to get rid of brush for farmers, and where appropriately used, open burning can be efficient and economical agricultural management practice. Farms generally have enough open land to safely burn brush, and burning kills invasive plant seed and material, and infected plant material. Chipping can be time consuming, expensive, and may fail to kill invasive plant seed. Chips then need to be disposed of or spread, re-depositing invasive plant seed back into the environment.

The local Open Burning Official can issue open burning permits for agricultural purposes only on non-state owned properties. If the applicant is leasing property from the State, the applicant must apply to the State of

Connecticut's Department of Energy and Environmental Protection's Open Burning Program for an open burning permit.

Slide 47 - Agricultural Purposes - Background Information

The applicant will need to demonstrate that the proposed agricultural burn is for an agricultural operation and that it will not impact others in the area and will not pose a threat to property and structures within the immediate area. The information submitted by the applicant and a site inspection by the local Open Burning Official should provide enough information to determine if the proposed open burning activity falls under the category of "agricultural purposes". Critical to the local Open Burning Official decision making is their ability to determine if the proposed activity falls under "AGRICULTURAL PURPOSES".

Should the local Open Burning Official need assistance to determine if the proposed activity is an agricultural or farm related operation and the burn supports an agricultural purpose, the State of Connecticut's Department of Agriculture will make itself available to consult with the local Open Burning Official.

Slide 48 - Agricultural Purposes - Background Information

There should be no burning allowed for certain types of materials. The applicant should not be allowed to burn hay, leaves, stumps, construction and demolition material, pallets, pesticides, solid waste, hazardous waste, or tires. Some of these materials are illegal to burn and others do not burn as cleanly as those materials that may legally be burned. All of them produce acrid smoke that causes nuisance conditions and threatens public health. Without sufficient and compelling just cause, structures should not be burned. As discussed previously, structural burns are subject to strict federal, state and local regulatory authorities. All federal, state and local laws must be adhered to, failure to do so subjects an individual to significant federal and state penalties and imprisonment. The burning of structures intended as a "cheap way" to get rid of a building should not be allowed, rather proper waste management practices should be undertaken. As a starting point, coordination with the State of Connecticut's Department of Agriculture is strongly recommended.

Finally, with regard to structural burns, it should be noted that there may be very unique cases where burning a structure may be the best management option. For example, the structure contains a unique type of mold that is embedded throughout the structure that poses a health hazard to both humans and animals alike and that burning the structure may be the best option to deal with this problem. It is the responsibility of the Applicant to provide the justification. The Open Burning Official may find it necessary to seek technical assistance to verify the justification given by the Applicant from the State of Connecticut's Department of Agriculture for this and other similar types of unique cases.

Slide 49 - Specific Activity: Vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space - Form

This slide and the next will go over the model application/permit template that may be used by the local Open Burning Official when considering an application to conduct open burning for the purpose of "Vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space".

Under the Applicant Information section, the Applicant is being requested to provide the following:

- Applicant contact information including address, email, and phone numbers; Signature
- The street address of the proposed burn

- The date and time of the proposed burn
- A yes or no answer to the following question: “Is the Applicant a responsible representative who has been duly authorized to submit this application?”
- Verification that the proposed activity is to be conducted on municipal property
- Verification that the proposed activity is to be conducted on privately owned property permanently dedicated as Open Space.
- A description of the proposed activity and justification for the type of management practice to be used and which is supported by an expert in the field.
- A question of if the site has a Management Plan and if the Plan recommended this approach.
- Written documentation provided of the following: Proof of Ownership of the property; property owner’s authorization to conduct the proposed burn; notification to adjacent property owners prior to the proposed burn; and any other information as required by the Open Burning Official.
- A question if the Applicant used the State’s Natural Diversity Database as a pre-screening tool to identify potential impacts to State listed species.
- A description of the material and the quantity of material to be burned; the total acreage of property and the total acreage of property to be burned; a description of the vegetative cover
- A brief description of the methods and equipment immediately available to control and extinguish the burn
- A Sketch Map

Slide 50- Vegetative management ... on municipal property or on any privately owned property permanently dedicated as open space - Form

Continuing with the model application/permit template, the Applicant has completed their part of the form and now it is the responsibility of the Open Burning Official to complete the rest of the form.

As presented earlier in this module, the Permit Conditions include the General Statements, when the Permit is Not Valid under certain Conditions, the General Conditions that are applicable to all Permits, and the Special Conditions if checked by the local Open Burning Official. Based on this type of activity and the anticipated area size and material to be burned, a minor revision was made to item number three under the General Conditions; number three reads as follows: All reasonable measures to assure complete combustion and reduce excessive smoke are to be taken.

For this specific activity, the Prompt reads as follows: *In evaluating this application, did the Open Burning Official find it necessary to consult with the State of Connecticut’s Department of Energy and Environmental Protection’s Natural Resources Programs, specifically Forestry, Wildlife or Fisheries?* The check box is a Yes or a No.

The decision section indicates the outcome of either the permit is granted, or not granted with reasons provided.

Lastly, the Open Burning Official will sign and date the form.

Slide 51- Vegetative management ...on municipal property or on any privately owned property permanently dedicated as open space - Background Information

With regard to the terms used for this type of proposed activity, the following is provided:

Vegetative management means controlling undesirable vegetation; preparing sites for harvesting, planting or seeding; controlling plant disease; improving plant production quantity and/or quality; restoring native plant communities; maintaining habitats important to wildlife; and other similar purposes.

Enhancement of wildlife habitat means improving wildlife habitat, specifically for cover, food, water and living space, as well as managing for targeted species.

Ecological sustainability means managing biological systems so as they remain diverse and productive over time.

Municipal property means any property owned by a municipality; a municipality is defined as any town, city or borough, consolidated town and city or consolidated town and borough.

Privately owned property permanently dedicated as open space means property in which a permanent conservation restriction easement has been placed on the deed and recorded with the Town Clerk's Office.

Slide 52 - Vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space - Background Information

Open Space land – means any area of land, including forest land, land designated as wetland under CGS 22a-30 and not excluding farm land, the preservation or restriction of the use of which would (A) maintain and enhance the conservation of natural resource or scenic resources, (B) protect natural streams or water supply, (C) promote conservation of soil, wetlands, beaches or tidal marshes, (D) enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservation or sanctuaries or other open spaces, (E) enhance public recreation opportunities, (F) preserve historic sites, or (G) promote orderly urban or suburban development. (CGS Chapter 203, Section 12-107b(3))

In certain situations and under certain conditions, open burning can be an important habitat management tool in managing vegetation, creating and/or improving the quality of a targeted wildlife habitat, and/or achieving ecological sustainability on or for a desired habitat. The use of open burning under these scenarios is also commonly referred to as "prescribed burning". Prescribed burning is fire applied to a predetermined area within a prescribed set of conditions, dates and with appropriate safety precautions to achieve specific purposes.

Slide 53 -Vegetative management ...on municipal property or on any privately owned property permanently dedicated as open space - Background Information

Connecticut's Comprehensive Wildlife Management Strategy indicates a recurring theme – the loss of habitat and degradation of wildlife habitat in the State. The Strategy identifies a number of habitats that would benefit from specialized management techniques such as open burning. These habitats include: upland woodland and shrub habitat; upland herbaceous; early successional shrublands and forests; cool season grasslands; and warm season native grasses.

While fire can benefit some species of plants and animals, it can also have negative impact to others.

Please be aware that threatened and endangered species are protected under the federal United States Endangered Species Act and the Connecticut Endangered Species Act. In addition, the Federal Migratory Bird Treaty Act protects all migratory birds and their parts (including eggs, nests, and feathers). Close attention must be made with regard to the timing of the proposed burn.

In any case, it is recommended that the applicant consult the State's Natural Diversity Data Base early in the planning process.

Slide 54 - Vegetative management ...on municipal property or on any privately owned property permanently dedicated as open space - Background Information

The Natural Diversity Data Base can assist in identifying the presence of State and federally listed endangered, threatened, and special concern species and natural communities. Maps have been developed to serve as a pre-screening tool to help Applicants determine if there are any potential impacts to listed species associated with their proposed activity. The maps are online and can be accessed on the State website.

The maps show general locations of federal and State listed species and significant natural communities. Exact locations of species have been buffered to produce general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center.

To use the map, the applicant would locate the proposed burn boundaries. If the proposed burn area is within a shaded area there may be a potential for conflict with a listed species. It is at this juncture that the Applicant could request more information from the State Agency by submitting a Request for Natural Diversity Data Base State Listed Species Review Form, and all required attachments to the Natural Diversity Data Base for further review. The State Agency will provide recommendations for avoiding impacts to state listed species.

The Open Burning model Application/Permit Template form includes a line which the Applicant can indicate that this check was performed. If the applicant received recommendations from the State, the Open Burning Official should request that the Applicant provide a copy of the recommendations and that it be made a part of the application submittal. In addition, the Applicant should provide in writing how they addressed any and all of the recommendations. Open Burning Officials are encouraged to review that part of the application closely and ask any follow-up questions. Open Burning Officials are encouraged to consider impacts to State listed species when making permitting decisions.

Slide 55 - Vegetative management ...on municipal property or on any privately owned property permanently dedicated as open space - Background Information

This slide shows an example of a map showing the Natural Diversity Data Base Areas.

Again, the map delineates municipal boundaries and then shows general locations of federal and State listed species and significant natural communities.

Slide 56 - Vegetative management on municipal property or on any privately owned property permanently dedicated as open space - Background Information

It is the responsibility of the Applicant to clearly describe the proposed activity, provide the justification for undertaking such a burn, and document that the proposed activity is supported by an expert in the field.

The Applicant should indicate whether or not the site is under a Management Plan. A Plan describes existing conditions and desired future conditions for the purpose of preserving, protecting and/or enhancing the diversity of an ecosystem and wildlife habitats. The Plan should identify target species and any alternatives to burning. There are alternatives to open burning which include such management practices as mechanical

treatments (i.e., logging, brush hogging, mowing) and herbicide applications. The Plan should indicate if consideration was given with regard to the timing of the burn. Depending on the vegetative type and wildlife species, there are preferred seasons in which a burn should take place.

When considering the application, the local Open Burning Official is advised to seek technical assistance from persons who have adequate training or experience in applying this type of burn practice, as well as determining if the habitat management activity is appropriate for the desired goals as identified by the Applicant.

Slide 57- Vegetative managementon municipal property or on any privately owned property permanently dedicated as open space - Background Information

As one of the permit conditions found in the model Application/Permit Template, a permit is not valid when the Forest Fire Index is high, very high, or extreme. However, there may be situations where a burn must be conducted during these conditions. For example, the burn has to be hot enough to achieve effective habitat improvement results. If this is the case, then the Applicant will also need to apply for a Special Burning Permit from the State of Connecticut's Department of Energy and Environmental Protection's State Forest Fire Warden. This is a State issued permit.

The State issued Special Burning Permit allows a permittee to burn during periods of high fire danger as long as three criteria are met: (1) the proposed burn is of immediate necessity; (2) the burn will not be in conflict with federal, state or local regulatory authority; and (3) the Permittee has the necessary equipment and manpower to confine the fire. As part of this State review process, the Applicant is required to document that the State's Natural Diversity Data Base was consulted and is made a part of the application. The Applicant will be required to submit as part of their Application to the State a Prescribed Burn Plan.

Special Burn Permits are issued for times of year when relative humidity and dormant vegetation creates conditions favorable for a successful burn, typically mid-March through mid-May and late fall.

It is noted yet again that the Applicant must obtain a local Open Burning Permit to validate the State's Special Burn Permit.

Slide 58 - Key Contacts

This slide and the next two slides provide key resource contacts to the Municipal Open Burning Official. Please take the time now to read through these slides to become familiar with the types of resources that have been made available to Open Burning Officials should it be necessary when evaluating open burning applications. This slide covers Fire Training Exercises.

Slide 59 - Key Contacts

This slide covers proposed open burning for the purpose of eradicating or controlling insect infestations or disease and for agricultural purposes.

Slide 60 - Key Contacts

This slide covers proposed open burning for the purpose of vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space and for clearing vegetative following a natural disaster.

Slide 61 - Take Aways

The local Open Burning Official is responsible for evaluating and making a determination on submitted open burning applications, and where appropriate, the issuance of open burning permits. These permits can be issued to residents and/or duly authorized individuals as identified on the application within such a municipality for certain types of open burn activities as identified in the CGS Section 22a-174(f). These activities include the following: Fire training exercises; Eradication or control of insect infestations or disease; Agricultural purposes; Clearing of vegetative debris following a natural disaster; and Vegetative management or enhancement of wildlife habitat, or ecological sustainability on municipal property, or on any privately-owned property permanently dedicated as open space

Associated with each of the proposed activities are key questions that must be answered by the applicant. These key questions include, but are not limited to, the following:

Fire Training Exercises: Is the proposed training in accordance with National Fire Protection Association 1403, Standard on Live Fire Training Evolutions? Has the Fire Chief signed off on the proposed exercise? If a structural burn is proposed, have all potential environmental and health and safety issues been addressed? Has documentation been provided showing Proof of Ownership of the property, and where applicable, Authorization from the property owner to conduct the proposed burn; Affidavit attesting to the fact that there is no insurance on the structure? Have all State and local regulatory requirements been met?

Slide 62 - Take Aways

Key questions continued:

Eradication or control of insect infestations or disease: Has documentation been provided that indicates that such infestation or disease has been identified by someone with expertise in the field and that the strategy being proposed is the preferred management option? Has documentation been provided showing Proof of Ownership of the property; where applicable, Authorization from the property owner to conduct the proposed burn?

Agricultural purposes: Is the property where the proposed activity is to occur an agricultural and/or farming operation as defined in CGS Section 1-1q? Has justification been provided that the proposed activity is necessary and supports an agricultural purpose?

Clearing of vegetative debris following a natural disaster: Due to the significant risk to public safety and potentially significant adverse environmental impacts, consultation is strongly recommended with the State of Connecticut's Department of Energy and Environmental Protection, Bureau of Air Management's Open Burning Program and the Bureau of Natural Resources Management, Forestry Division. This consultation should be conducted well before the permitting of this activity is considered.

Vegetative management or enhancement of wildlife habitat: Is the applicant a responsible representative who has been duly authorized to submit the application? If the proposed activity is to occur on a privately owned property permanently dedicated as open space, is there a permanent conservation restriction easement on the deed and recorded with the Town Clerk's Office?

Slide 63 - Take Aways

Model Application/Permit Templates have been developed by the State of Connecticut's Department of Energy and Environmental Protection for use by municipal Open Burning Officials. These model templates can be modified by the local Open Burning Official but any modifications made must be as, or more restrictive than CGS Section 22a-174(f) or as prescribed by the State of Connecticut's Department of Energy and Environmental

Protection, Bureau of Air Management's Open Burning Program. These model templates have been developed with the intent of getting the necessary information from the Applicant so that the Open Burning Official can make an informed decision.

It is the Applicant's responsibility to complete the application in full and provide any and all necessary documentation requested so that the Open Burning Official can make an informed decision with regard to the proposed activity. It is critical that the Applicant provide the written documentation that justifies issuance of an open burning permit for the proposed purpose. Failure to provide the information forms the basis for denial of a submitted application. The burden is on the Applicant to provide the information and documentation as part of their submittal, not the local Open Burning Official.

Prior to any open burning being conducted and per Permit conditions, the Permittee will need to determine if conditions are suitable to conduct a burn.

Slide 64 - Take Aways

This slide provides a quick reference with regards to finding the information within this module per the type of activity, the model application/permit template and background information.

Slide 65 - DEEP End Page