

# Instructor Presentation Plan

**Course:** Florida's Certified Pile Burn Manager Program

**Unit Number:** 5

**Presentation Title:** Pile Burning Safety

**Presentation Time:** 1.0 hour

**Presentation Objectives:**

Upon completion of this presentation, the participants will:

1. Explain why safety must be given the same priority as all industrial practices.
2. Describe 4 general safety considerations.
3. Do's and Don't when working around the burn pile.

**Handouts:**

Presentation Outline	Aids and Cues
<p><b>Title Slide</b></p>	07-01-CPBM-PPT
<p><b>Presentation Objectives</b>            Upon completion of this presentation, the participants will:</p> <ol style="list-style-type: none"> <li>1. Explain why safety must be given the same priority as all industrial practices.</li> <li>2. Describe 4 general safety considerations.</li> <li>3. Do's and Don't when working around the burn pile.</li> </ol>	07-02-CPBM-PPT
<p><b>Introduction</b>            Burning is an art and not a science and through years of experience, professional land clearers have learned many lessons regarding safety procedures at the burn site.</p> <p>Accidents or rather incidents should not occur. Through a common sense approach, these events can be controlled or better yet eliminated. Through proper planning and due caution this can be achieved.</p> <p>Some of the items covered may seem elementary and basic; however, more accidents occur in familiar surroundings than in stressful situations where individuals are cognizant of danger.</p>	07-03-CPBM-PPT  07-04-CPBM-PPT Picture

Presentation Outline	Aids and Cues
<p><b>Communications</b></p> <p>Prior to any firing, a briefing with your personnel should be considered a standard procedure</p> <p>Explain to crews what is expected of them and the objectives of the burn. Location of first aid kits and other related items in case of incident.</p> <p>Location of hospitals if a major incident should occur, or how to get hold of emergency personnel. Cell phone on site is almost a must. Crew locations and what you expect of them prior to lighting the pile. Capabilities and limitations of equipment.</p>	<p>07-05-CPBM-PPT</p> <p>07-06-CPBM-PPT Picture</p> <p>07-07-CPBM-PPT</p> <p>07-08-CPBM-PPT</p>
<p><b>Personnel Safety Equipment</b></p> <p>Recommended items of personal protective equipment for land clearing and pile burning:</p> <p>Hardhat Eye protection Bandanna or dust mask Ear Protection Clothing Long sleeve shirt (decrease radiant heat burns) Work pants heavy fabric i.e. jeans</p> <p>Important Note - synthetic fabrics will melt and cause injuries more severe when ignited. Loose fitting and layered clothing will offer extra protection. Fabrics such as Nomex and other fire resistant fibers are available and worn as outer garments will offer state of the arts protection.</p>	<p>07-09-CPBM-PPT</p> <p>07-10-CPBM-PPT</p> <p>07-11-CPBM-PPT Picture</p>
<p><b>Safety Hazards</b></p> <p><b>Equipment:</b> Heavy equipment work at times is inherently dangerous and requires continuous thinking and application of safety practices by all individuals. When working with equipment, fire personnel must be aware of these inherent hazards.</p> <p>When approaching an equipment operator, make sure that the operator can see you. Do not approach from the rear of the vehicle or another direction where the driver's vision may be impaired.</p> <p>Large equipment may drop or spring branches from the area in which they</p>	<p>07-12-CPBM-PPT</p> <p>07-13-CPBM-PPT</p> <p>07-14-CPBM-PPT</p>

Presentation Outline	Aids and Cues
<p>are working and may cause injuries. Do not work too close to heavy equipment. Equipment work may fluff up soils that may hide hazards.</p>	<p>07-15-CPBM-PPT Picture</p>
<p>Equipment will cause dust to be suspended into the air and limit visibility. Do you know where you are in relation to the equipment? When hooking or cabling, use gloves. Backing horns are a must.</p>	<p>07-16-CPBM-PPT 07-17-CPBM-PPT Picture</p>
<p>Keeping equipment clean and in working order is important. Equipment fires can be dangerous and costly.</p>	<p>07-18-CPBM-PPT</p>
<p><b>Rough terrain:</b> On the fire ground, many items are trip hazards and need to be recognized. Holes from stumps may be covered by loose soils and pose a hazard. Roots and buried branches may be sharp from breakage and being impaled may ruin your whole day.</p>	<p>07-19-CPBM-PPT 07-20-CPBM-PPT <b>Picture</b></p>
<p><b>Starter fuels:</b> Over the years, experience has shown that different fuel mixtures provide varying results. The most satisfactory mixture should not produce a dangerous flash and should also not produce unwanted smoke problems.</p>	<p>07-21-CPBM-PPT 07-22-CPBM-PPT Picture</p>
<p>Gasoline alone, because of its characteristics will cause flashing and may burn individuals away from the pile. Vapors settle on the ground and move away from application site. (Don't)</p>	<p>07-23-CPBM-PPT</p>
<p>Diesel has a higher burning temperature but a lower flash point. The fuel may be harder to start but burns hotter than gasoline. Caution...this fuel does produce appreciable smoke and may cause problems at startup.</p>	<p>07-24-CPBM-PPT</p>
<p>Gasoline and diesel mixture has been used in many areas as the gas will lower the ignition point and the diesel will burn hotter. 1/4 to 1/3 gas to diesel mixture have produced reasonable results (kerosene and mineral spirits may be used). Tires and other types of solvents must not be used</p>	<p>07-25-CPBM-PPT</p>
<p><b>Hazards:</b> Over the years when clearing rough woods there was little worry about unnatural products in the burn pile. However, with population increases, many items are discarded in these areas to save money from proper disposal fees. Plastic items, such as PVC pipe and furniture, fiberglass, Styrofoam and other products that are made of plastic, produce dangerous products when</p>	<p>07-26-CPBM-PPT 07-27-CPBM-PPT <b>Picture</b> 07-28-CPBM-PPT</p>

Presentation Outline	Aids and Cues
<p>burned. Not only is it dangerous, it is illegal Tires produce unwanted smoke and residues from combustion and are dangerous and illegal.</p> <p>Chemicals: this covers any product from discarded paint cans to drums of unknown substances. Don't put these in the burn pile. Not only illegal and dangerous but a rapid oxidation may result. (Explosion) Other: If the product that is part of the burn pile is not natural and not permitted, don't burn it.</p> <p><b>Instructor's Note:</b> poison ivy, lantana, Brazilian pepper, and oleander produce toxic or irritating smoke</p> <p>Heat exhaustion/heat stroke Heat Exhaustion: Shock caused by overwork in hot environment.</p> <p><b>Signs</b> Pale tissue moist clammy skin Profuse sweating Weakness, dizziness and headache</p> <p><b>Procedures</b> Have patient lie down, elevate feet 6 to 12 inches Maintain body temperature Give patient water If no response, seek medical help</p> <p><b>Heat Stroke</b> <b>Signs</b> Red Tissue Skin hot and usually dry Temperature 105° F Patient not sweating May be disoriented Seizures</p> <p><b>Procedures</b> Cool Patient Down Call for medical aid <b>Instructor's note:</b> Obtain heat index from the Division of</p>	<p>07-29-CPBM-PPT <b>Picture</b></p> <p>07-30-CPBM-PPT</p> <p>07-31-CPBM-PPT</p> <p>07-32-CPBM-PPT</p> <p>07-33-CPBM-PPT</p> <p>07-34-CPBM-PPT</p>

<b>Presentation Outline</b>	<b>Aids and Cues</b>
<p>Forestry or National Weather Service.</p> <p>Recent studies have shown that hydration prior to hard work is necessary to keep personnel at peak performance.</p> <p>Show video: NFES 2071-PMS 306-2 Fatigue and the fire fighter environment 22 min.</p> <p><b>Do's and Don'ts</b></p> <ul style="list-style-type: none"> <li>A. Do be aware of your surroundings</li> <li>B. Do communicate with your personnel</li> <li>C. Do make sure all personal protection equipment is worn</li> <li>D. Do watch for all safety violations of the burn site</li> <li>E. Don't let people free lance on the burn site, proper supervision will stop accidents.</li> </ul> <p><b>Questions</b></p>	<p>NFES 071-PMS 306-2</p> <p>07-35-CPBM-PPT</p> <p>07-36-CPBM-PPT</p>

