



Fire Protection Training

Procedures Handbook 4300

TOOLS & EQUIPMENT

TOPIC: Fusees As Firing Tools

TIME FRAME: 20 Minutes

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will be able to list and describe the parts of a fusee and its uses as a firing tool.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Fusee
- Chalkboard and chalk
- Appropriate visual aids
- Audio visual equipment

REFERENCES: None

PREPARATION:

The fusee is an effective device used for burning out control lines and backfiring on wildland fires. It provides a method of firing grass, pine needles, leaves, brush and similar dry fuel which ignite readily and radiate sufficient heat to sustain combustion. The compound which makes up the fusee when ignited is subject to splattering and can cause severe burns if not handled properly.



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FUSEES AS FIRING TOOLS

PRESENTATION	APPLICATION
<p>I. TERMINOLOGY</p> <ul style="list-style-type: none">A. Fusee CapB. Striker CapC. StrikerD. Body/Solid CoreE. IgniterF. Hollow Tube <p>II. USE</p> <ul style="list-style-type: none">A. Used as a Warning DeviceB. Used as a Firing Device<ul style="list-style-type: none">1. Normally 10-18" in length2. Burn from 15-30 minutes3. Burns at 1400oF. <p>III. SAFETY</p> <ul style="list-style-type: none">A. Wear Full Set of Protective Clothing<ul style="list-style-type: none">1. Slag can burn safety clothing and cause severe burnsB. Initiate Burning Operations only at Direction of Line Supervisor<ul style="list-style-type: none">1. Exception - May initiate burning operations in emergency conditions to save life or high value property.	<p>Information Sheet #1</p>



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<ul style="list-style-type: none"> C. Notify All Adjacent Resources when Burning Operation is Beginning. D. Do Not Carry Lighted Fusee on the Green Side of the Control Line. <ul style="list-style-type: none"> 1. Dripping or sputtering slag may ignite fuels. E. Use an Extension to Create Distance Between Yourself and the Flaming Fuel <ul style="list-style-type: none"> 1. May insert additional fusees with the igniter exposed into the hollow base of the first fusee for sequential burning 2. May insert wooden dowel/handle into the hollow tube at the base of the first fusee F. Normally Burn Strips of Fuel Adjacent to the Control Line <ul style="list-style-type: none"> 1. To widen control line 2. Exception - In cases where burning is part of an aggressive offensive or defensive operation, it may be safer to fire large areas initially. G. Proceed Slowly Enough to Ensure that Fuel Continues to Burn to Eliminate Islands and Possibility of Reburn H. Vapors from Fusee are Toxic and You Should Avoid Breathing Them I. Contact with Water May Cause Small Explosive-like Reactions J. Avoid Looking Directly at Lighted Fusee. Extreme Brightness May Damage or Impair Vision 	<p>Do not use metal handles due to heat conductivity</p>



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PRESENTATION	APPLICATION
<ul style="list-style-type: none">K. Avoid Using Fusees Near Flammable LiquidsL. Do Not Use Damaged Fusees <p>IV. CARE AND MAINTENANCE</p> <ul style="list-style-type: none">A. Store Fusees in a Cool Dry AreaB. Keep Clean and DryC. Store Away from Water and OilD. Store Out of Direct SunlightE. Rotate Stock of Fusees to Keep Fresh SupplyF. Do Not Stack Heavy Items on Fusees	



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FUSEES AS FIRING TOOLS

SUMMARY:

Using fusees to initiate firing operations is an effective method of quickly establishing or widening control lines. Firing operations can dramatically reduce the amount of line that would otherwise be constructed by crews or bulldozers and free up resources for other assignments.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).