INSTRUCTOR GUIDE

RINGS OF FIRE

Tire Fire Prevention and Suppression

Lesson Plan 08 PREPLANNING

TOPIC: Pre-Fire Planning Tire Storage Areas

<u>LEVEL</u>:

TIME: 30 Minutes

BEHAVIORIAL OBJECTIVE:

Condition: Complete evaluation with 70% accuracy

Behavior: The student will . . .

1. Develop a site specific pre-fire plan of an outdoor tire facility

Standard: According to the referenced text

REFERENCES: Slaughter, Rodney. "RINGS OF FIRE: Tire Fire Prevention and

Suppression" California State Fire Marshal, June 2004.

MATERIALS NEEDED: PC projector, projection screen, VCR, multimedia slide show on

CD/ROM, speakers.

PREPARATION: Preplanning is essential in effective tire fire management. Pre-

incident plans are developed to identify the special considerations and hazards of a particular site or property so that responding units

will know what to expect and how to proceed during initial operations. Pre-plans must accommodate the agency's standard guidelines and specify exactly how those guidelines are to be applied should a fire break out at a given location. All outdoor tire and rubber products storage facilities should be considered high-risk storage sites and pre-planned accordingly. Included within the pre-incident plan is information and resource material useful to the incident commander. In the case of a tire fire, these resources would

include maps of the area, information on the hydrographic

conditions of the soil, water supply contingency plans, emergency

contacts and a variety of other important considerations.

PRESENTATION	APPLICATION
	From the Main Menu click on the Response button. In the Response sub-menu click on the Preplanning button.
	Preplanning Objective.
I. Objective- Develop a site specific pre-fire plan of an outdoor tire facility	
	Preplanning Slide 02
II. Pre-Incident Plan	
A. Included within the pre-incident plan is information and resource material useful to the incident commander	
B. Anticipated assignments for mutual aid companies and organizational charts specifying the anticipated control sectors	
C. The means of maintaining fire ground and incident management strategies (Incident Command System), should be anticipated	
D. The following common elements of tire fires that need to be considered and included in the pre-incident plans includes:	
1. The anticipated establishment of a functional incident management system, to include command and control of all responders and workers.	
2. The early recognition of tire fires as potential hazardous materials (HAZMAT) incidents, with considerations given to treating them as such.	
3. Information regarding the site's location, layout, size and composition. Also information regarding access and egress routes, the physical infrastructure of the roads and other "access" considerations.	

PRESENTATION	APPLICATION
4. Information management plans, to include resource request tracking forms, video recording of incident progression, and financial reimbursement requests.	
5. Access to local, state and federal agencies or organizations with environmental and/or emergency management responsibilities	
6. Access to local and regional contractors with specialized equipment	Preplanning Slide 03
III. Site Location, Size, Layout, and Composition	
A. The exact location and size of the tire storage yard or dump should be determined	
1. Often difficult to perform since many sites are located in remote areas or accumulate as the result of illegal dumping	
2. Maps of the site should be updated and made available in the pre-incident plan	
3. Ingress and egress plans for apparatus and personnel should be included	
4. The development of additional access points should be planned with the means of maintaining or expanding accesses provided	
5. The possible locations for a command post and any usable on-site buildings may also be identified.	
	Preplanning Slide 04
B. Photograph of Royster tire facility in Tracy Calif. Note the site is in a sand and gravel quarry with uneven topographical features	

PRESENTATION	APPLICATION
	Preplanning Slide 05 Topography
C. Topographical, aerial and soil composition maps should be obtained and updated to show hydrants and water supply sources, accesses, interior lanes or passages, and fuel load configurations.	
	Preplanning Slide 06 Water Supply
D. Photograph of Royster- facility had no water supply!	
	Preplanning Slide 07
E. Schools, homes, and transportation routes near the site should be identified as "high risk" exposures and considered in pre-incident planning should evacuation or pollution control become necessary.	
F. The location of any utilities on or near the site should be identified so responders can quickly shut off power to electrical or gas lines and prevent the run-off of contaminated water into storm drains or plumbing systems	
G. The condition of roads and access routes should be considered to avoid a common problem of first-arriving units becoming stuck in mud or unable to exit a narrow access.	
	Preplanning Slide 08
H. Tire Pile Configuration	
1. The composition of the tire pile should be considered since important differences exist in developing suppression strategies.	

PRESENTATION	APPLICATION
2. Shredded or "chip" tire piles present different challenges than whole tires, as would the existence of plastics, metals, refuse or hazardous chemicals/waste.	
3. Additionally, the age of the pile and the local climate may affect the amount of rodent and insect infestation of the particular site.	
4. Older tires maybe checked and cracked from exposure to the weather making them easier to ignite	
	Preplanning Slide 09 Tire Pile
5. Photograph of a portion of Westely Tire Pile, note all tires are off-rim and there appears to be no other material salvaged with the tires	
	Rings of Fire Slide 10
IV. Identification of State and Local Emergency Response Teams	
A. State and Local Emergency Response Teams should be a component to pre-planning	
B. In the event of a tire fire, local fire fighting efforts for communities may not have sufficient resources to handle such an emergency	
C. Pre-incident plans should contain up-to-date emergency contacts for all local, state, and federal agencies or organizations with expertise or responsibility in management of environmental disasters	

PRESENTATION	APPLICATION
D. The lists should include phone numbers, facsimile numbers, addresses, and radio frequencies, if applicable.	
E. Outside agencies should participate in, or at least become familiar with, the pre-incident plans.	
 F. Examples of concerned agencies would be: State and local Police; Public Works agencies; State Department of Emergency Management; Regional offices of the Federal Emergency Management Agency (FEMA); Regional, State or Federal Environmental Protection Agency (EPA); State Division of Natural Resources or State Forestry Agency; State Fire Marshals office; and Finance, Purchasing and Budget agencies. G. The pre-incident plans should assign the various government agencies to appropriate sections in the command system. 	
	Preplanning Slide 11 Heavy Equipment
V. Identification of Local and or Regional Response Contractors	
A. Identification of local and or regional response contractors is a necessary component of pre-planning for a tire fire response.	
B. A current list of contractors should be maintained at all times.	
C. Having contractors identified and coordinating their use in simulated drills with the local fire authority will provide the necessary training to manage the emergency and make informed decisions.	

PRESENTATION	APPLICATION
 D. Contractors commonly utilized in a tire pile fire include: 1. Providers of heavy equipment including but not limited to front-end loaders, track excavators or dozers; 2. Construction and wood supply companies; 3. Equipment repair and maintenance contractors; 4. Fill dirt and gravel contractors; 5. Canteen or food services providers; 	Preplanning Slide 12
6. Sanitation or "Porta-John" companies; 7. Public and private universities - departments of ecology, environmental engineering, etc.; 8. Foam/chemical additives manufacturers; 9. Oil reclamation and clean-up companies; and 10. Aerial photography and Infrared reconnaissance sources (sometimes provided by State Police or a university).	Preplanning Slide 13 Site View
VI. Initial Tire Fire Response	Site view
A. In order to establish and maintain command and control of all response efforts associated with a tire pile fire, a unified command (UC) should be established where all aspects of the incident can be calculated and communicated B. Remember that tire fires involve active participation from multiple federal, state, and local agencies 24-hours a day for several months	

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RINGS OF FIRE

PRESENTATION	APPLICATION
	Video - Slide 14: Show the third section of four sections of the "Rings of Fire" video
	Instructors Note: Give summary and then read evaluation questions
	Preplanning Slide 15 Questions

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RINGS OF FIRE

Tire Fire Prevention and Suppression

SUMMARY:

A clear, well thought out pre-fire plan is very important in dealing with outdoor tire storage. The guidelines in this section will help you make these kinds of preparations. In the event of a fire, the advance work you did on this preplan will help the incident commander manage valuable resources more effectively.

EVALUATION:

1. What are your primary concerns for a tire pile fire? Answer: access, water supply, separation distances between piles, environmental impact, and the number of resources it will tie up.

2. Should those concerns be part of the problem? Answer: Yes! All considerations should be made in the preplan

3. Why is it important to know the age and exposure of a tire pile? Answer: Older tires tend to crack under the sun making them easier to ignite

ASSIGNMENT:

None