

WESTLEY TIRE FIRE  
WESTLEY, STANISLAUS COUNTY, CALIFORNIA  
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**Abstract**

On September 22, 1999, a lightning strike ignited a fire in the Filbin tire pile located in a canyon in a coastal mountain range. The tire dump contained an estimated seven million scrap tires piled on the east slope of the canyon. The fire spread quickly and engulfed most of the tire pile areas. The tremendous smoke plume from the tire fire impacted nearby farming communities and caused widespread concern of potential health affects from exposure to the smoke emissions. The tire fire produced large volumes of pyrolitic oil that flowed off the slope and into the drainage of an intermittent stream. The oil runoff was initially contained behind an existing small dam and impoundment structure. A reduction in smoke emissions was evident as the tire fire entered into the smoldering stage.

The fire in the tire piles within the drainage ignited the oil flowing in the stream. The large oil fire significantly increased the smoke emissions and a local climatic inversion caused the smoke to remain close to ground level. A response to the oil and tire fires was beyond the capabilities of local and State agencies. The U.S. EPA On-Scene Coordinator (OSC) immediately responded using Oil Pollution Act of 1990 (OPA) authority. The OSC quickly mobilized EPA's contractors and the U.S. Coast Guard Pacific Strike Team. EPA's cleanup contractor, IT Corporation, was directed to subcontract Williams Fire and Hazard Control (formerly Boots & Coots) to fight the oil fire. Due to the geographic setting, the oil flowed away from the tire piles resulting in a slower burning fire. It was discovered that only the top ten feet of tires were burning. A tactical plan was developed to implement a safe and effective suppression of the fire. Large excavators and special foam delivery apparatus were used to extinguish fires one slope at a time while moving up the canyon. It took 30 days to extinguish the fire.

Over 250,000 gallons of pyrolytic oil was recovered from the retention pond. An estimated 4 million gallons of contaminated fire fighting water was impounded on site in a series of constructed basins within the drainage channel. Total EPA response costs was about \$3.5 million. Future work will involve site winterization, characterization and remediation. The response action was highly successful. Some of the most difficult problems that were encountered included extremely hot and unstable fire conditions, heavy equipment operations on steep slopes, deep and spongy tire piles, controlling massive volumes of oil and water runoff, California waste classification and recycling of the pyrolitic oil.

## Presentation Outline for 2000 Freshwater Spills Conference

**Westley Tire Fire**  
**Westley, Stanislaus County, California**  
**September/October, 1999**  
**OSC Dan Shane, U.S. EPA Region 9**

### **I. Introduction**

Rash of tire fires in Region 9 in past several years  
Each tire fire incident presents a unique set of circumstances  
The type of response depends on the circumstances

### **II. Situation Description**

#### **Background**

Physical setting  
Characteristics of the tire dump  
Cause of Fire and Fire Dynamics

#### **Potential Threats**

Toxic air contaminants affected local communities  
Pyrolytic oil threatened stream, aqueduct and canal  
Contaminants threatened soil and ground water resources  
Smoke threatened PG&E Intertie Transmission Line

### **III. Practical Response Actions**

#### **Establishing Incident Command**

Initial response by local and State officials  
Transition to a Unified Command

#### **Fire Suppression Tactics**

First responders decision to let it burn  
Oil fires and Williams Fire and Hazard Control  
OPA activation and contractor mobilization  
Fighting the oil and tire fires  
Use of water and foam to extinguish the fires  
Use of specialized foam delivery equipment  
Heavy equipment operations  
Community involvement

## **Assessing and Managing Runoff**

- Production and composition of pyrolytic oil
- Downstream containment of oil and water runoff
- Collection, removal and storage of oil
  - Recycling of oil and problems encountered
- Management and reuse of wastewater runoff
- Health concerns

### **IV. Site Winterization Activities**

- Concerns of stormwater runoff during the winter and spring rains
  - Construction of coffer dams, diversion pipelines and stormwater basins
- Erosion control and hydroseeding
- Wastewater management plan

### **V. Transition of Response to Cal-EPA**

### **VI. Site Remediation Issues**

- Millions of unburned and partially burned tires left in drainage
- Large quantity of contaminated debris (mixture of ash, wire and soil)

- Characterizing contamination in soils and groundwater
  - Remedial alternatives being considered

### **VII. Response Authorities, Enforcement and Costs**