

U.S. Fire Administration / National Fire Academy

*Coffee Break Training***Topic: Safeguarding Roofing Operations**

Learning objective: The student shall be able to explain safety regulations related to heated asphalt roofing operations.

Roofing operations using heated asphalt can be a serious fire hazard; both from the heated combustible liquid and the potential for exposure fires when buildings are under construction or being remodeled.

The wheeled apparatus in the photograph is known as an asphalt or roofing “kettle.” It is used to heat solid asphalt blocks to a liquid state, allowing the asphalt to be pumped or carried to the roof where it is applied.

Operating kettles must not be located inside of or on the roof of any building, and should be operated in a controlled area. The area must be identified by the use of traffic cones, barriers, and other suitable means. The kettle should be located at least 20 feet (6.9 m) from any combustible materials, combustible building surface, or any building opening. Kettles must be at least 10 feet (3 m) from exits or means of egress.

An operating kettle should be attended by a minimum of one employee who knows how the device works and is aware of the hazards. Depending on the locally adopted code, the employee must be within 25 feet (7.6 m) to 100 feet (30.4 m) of the kettle and have the kettle within sight.



This mobile asphalt kettle should have at least one fire extinguisher nearby, and the cylinders should be secured from falling.

Two approved ABC multipurpose fire extinguishers must be provided and maintained within 25 feet (7.6 m) of the operating kettle, and one fire extinguisher is required on the roof near the roofing operations while the hot asphalt is being applied. The minimum fire extinguisher rating varies, depending on the locally adopted fire code.

Fuel containers for heating the asphalt should be constructed and approved for that use. Liquefied petroleum gas (LPG) containers, hose, regulators, and burners should conform to the fuel gas requirements of the fire code. LPG cylinders shall be secured to prevent accidentally tipping over.

For additional information, refer to NFPA 1, *Uniform Fire Code*[®], Chapter 16 or *International Fire Code*[®], Chapter 3.