

Hot Asphalt Safety

Training Overview

This guide is designed to assist the instructor with the presentation of the *Hot Asphalt Safety* training materials. Each numbered statement represents a statement of fact or concept that should serve as a takeoff point for elaboration. Instructors should draw upon personal real-world experience for analogies and anecdotal embellishment. The trainees' study guide is brief and they should be given a few minutes to read and review it. Remind trainees that the correct answers on the quiz reflect information as it was presented in the training guide.

Hot asphalt is the most dangerous material roofing mechanics have to work with. It accounts for more serious injuries than any other risk except for falls in the roofing profession. This guide is designed to assist in the promotion and training of hot asphalt safety. Each numbered statement is a concept to provide you with information you can use to prevent injuries and safely handle hot asphalt.

1. Personal protective equipment (PPE) should consist of long sleeve shirts buttoned at the cuff, and long pants without cuffs. Clothes should be natural fiber not synthetic that can melt if in contact with hot asphalt. Gloves with snug knit cuffs should be worn - gauntlet type gloves are not recommended. Safety glasses should be worn at all times and when filling luggers. Moving asphalt equipment or operating kettles requires a full-face shield. Boots should be non-skid with thick rubber or composite soles.
Note: 29CFR1926.28(a) Many contractors have rules requiring various types of PPE at all times on their jobsite. They have the right to set those rules for their jobsite. OSHA only requires the use of PPE when there is an exposure to hazardous conditions. OSHA does not list hazards. Their standards are more far-reaching by simply requiring safety equipment whenever hazards are inherent in the work process.
2. Know the temperature of hot asphalt. Kettles should be equipped with built in thermometers and hand held thermometers should be on the roof. Do not let asphalt exceed its flash point, the temperature at which enough of the chemical evaporates to form a mixture with air which can be ignited by spark. The flash point is written on the side of the carton or in the case of bulk asphalt on the MSDS sheet.
Always keep the kettle at least 25 degrees F below the stated flash point to avoid fires and/or explosions. The flash point varies depending upon the product.
3. Hot asphalt carrying equipment should be checked daily for worn bearings, axels and balance. Clear a safe path before moving a carrier. Open drain cocks slowly. Use a shield on windy days to keep the hot asphalt from blowing around. When moving or carrying hot asphalt warn others by yelling 'HOT' to alert them.
Discuss and/or demonstrate specific procedures that your particular company follows to ensure equipment safety.
4. Avoid walking on hot asphalt as it is very slippery. Never apply hot asphalt near another worker who is not aware of it.
Again, nonskid boots with 6-inch leather uppers should be worn. All personnel should be made aware of the potential work hazards at the beginning of each work day.

5. If a bucket of hot asphalt becomes stuck to the roof, twisting the bail back and forth until loose should loosen it. Never jerk the bucket. Pour the bucket with one hand holding it firmly and pouring on either side of the bail.
Demonstrate the proper way to loosen a bucket and pour from a bucket.
6. Never look into a hot carrier when filling. Measure the level with a dipstick. Never spit or throw water into hot asphalt.
7. At the end of the day, spin out mops on a piece of non-combustible material. Mops left in carts or not spun out can burst into flames by spontaneous combustion. Draw down kettles and add cold asphalt before leaving. Lock drain cocks if possible.
Review your company's specific "end of day" procedures for safely securing materials.
8. Always maintain one 20 lb ABC type fire extinguisher on the roof in the area where hot asphalt operations are taking place.
Review placement procedures with workers. Make sure that each worker knows how to operate the extinguisher.
9. Cover air intakes or ventilators to prevent asphalt fumes from entering the building. Make sure any building occupants are aware of any operations that will impact their safety.
10. If a worker is burned by hot asphalt never attempt to remove the asphalt or clothing that asphalt has come in contact with. Immediately immerse the affected area in ice water. Cold water should be available even in winter. Transport worker as soon as possible to medical aid. Barrier creams should be worn on exposed skin to prevent irritation from asphalt fumes. Barrier creams should not be used in lieu of appropriate PPE.
This point provides you with the opportunity to review your accident procedures.

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