

Asphalt Fumes: Roofing Operations

Asphalt fumes cause health effects such as headaches, nausea, and drowsiness. They are also linked to lung cancer. Asphalt kettles cause both continuous exposure to fumes that escape and occasional exposures when the lid is opened for filling or loading. In general, the higher the asphalt temperature, the more fumes are produced.

Bill's Story

Bill is an asphalt kettle operator for a roofing company. He is careful to use personal protective equipment, including a hardhat, face shield, long-sleeved shirt, gloves, goggles, and leather work boots. He keeps the workarea cleaned up and has a fully charged ABC fire extinguisher nearby. Bill started having headaches, drowsiness, and nausea on the job, so he took a week's vacation. When he returned, his co-workers showed him the new kettle bought because the old one had a damaged lid and was leaking fumes.

✘ **What do you think caused Bill to feel ill?**

✘ **Have you ever had any of the symptoms Bill had? If so, what happened?**

Remember This

- Place the kettle downwind, where the operator and others will be least exposed.
- Select an insulated kettle that is the right size for the job.
- Make sure the kettle has working temperature controls and the proper pumping capacity for its size.
- Make sure the kettle is in good operating condition. Report any defects to the foreman or superintendent. Remove all potential fire hazards from the area. Maintain proper ventilation.
- Set the kettle on firm, level ground to avoid tipping or spilling.
- Keep the kettle lid closed as much as possible. Fill the kettle to capacity when reloading; at the same time, check the temperature, stir, and skim.
- Pre-chop the asphalt into easily handled, melted pieces. Use a safety loading door instead of the lid to fill the kettle.
- The supervisor must block off the kettle area with warning tape, traffic cones, and signs.
- Consider using fume-suppressing asphalts.
- Keep a fully charged ABC-type fire extinguisher near the kettle.
- Maintain kettle temperatures at least 25 degrees below the flash point of the asphalt to prevent fires.

How can we stay safe today?

What will we do at the worksite to reduce exposures to asphalt fumes?

1. _____

2. _____

OSHA Regulation: 1910.1200 for GHS training and Section 5(a)(1) for overexposure.

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- ✘ Place the kettle downwind, where the operator and others will be least exposed.
- ✘ Set the kettle on firm, level ground so that it won't tip over and the asphalt won't spill.
- ✘ Make sure the kettle is in good operating condition, and report any defects to your supervisor.
- ✘ Keep the kettle lid closed as much as possible and maintain proper ventilation.