



# Asphalt Fumes

*Asphalt has been known to cause minor health effects such as headaches, nausea, and drowsiness. It has also been linked to lung cancer. Most of the asphalt used in the United States is in paving and roofing. The remaining uses include waterproofing, damp-proofing, insulation and paints.*

## Here is an Example

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

1. **What do you think caused the difference in Bill?**
2. **Do you have any of the same symptoms that Bill had?**

## Protection Against Asphalt Fumes

Potential exposures related to operation of the kettle include both continuous exposure to fumes that escape from the kettle during operation and occasional exposures when opening the lid to fill or load the kettle. Currently, no OSHA standard exists for asphalt fumes. Respirator use may be called for if available engineering controls and work practices

can't control asphalt fume exposures to concentrations below the NIOSH Recommended Exposure Limit.

## Best Practices

- Place the kettle downwind where the operator and others will be least exposed.
- Maintain kettle temperatures at least 25 degrees below the flash point of the asphalt to prevent fires.
- Select an insulated kettle that is the right size for the job.
- Make sure it has temperature controls and the right 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.
- Set the kettle on firm, level ground to avoid spilling its contents or tipping the kettle over.
- Keep a fully charged ABC-type fire extinguisher near the kettle.
- Reduce the number of times the lid is opened. Fill the kettle to capacity when reloading and check the temperature, stir, and skim at the same time.
- Pre-chop the asphalt into pieces that can be easily handled and melted.
- Consider using fume-suppressing asphalts.
- Restrict access to the kettle area with warning tape, traffic cones and signs.

## What Are We Going to Do Today?

What will we do here at the worksite today to promote asphalt awareness?

1. \_\_\_\_\_  
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2. \_\_\_\_\_  
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OSHA REGULATION: 1910.1200 for GHS training and Section 5(a)(1) for overexposure.



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