



## Roofing Project Odors

Roof work is a necessary part of building preservation on Penn State campuses. Frequently, roofing odors are generated during these projects when hot asphalt or coal tar is used as water-proofing material. This Fact Sheet addresses some of the common concerns and questions that campus building occupants might have regarding roofing project odors.

### **I smell roofing odors. Does this mean I am being overexposed to harmful fumes?**

No. The sulfur compounds in roofing asphalt or coal tar have very low odor thresholds (in the parts per billion range). An odor threshold is the lowest concentration at which the odor of a substance can be detected by the human olfactory system. For building occupants, smelling the odors of nearby roof-work does not indicate a harmful exposure.

### **When I smell roofing odors, my eyes tear, my head aches, and I feel nauseated. Is this a short-term effect, or can it result in a chronic health problem?**

These are short-term effects of exposure to roofing odors. All the symptoms, while clearly unpleasant, are transient and can be relieved by ceasing further exposure and seeking fresh air. Long-term health consequences are not a result of the levels of exposure found inside buildings during roofing projects.

### **Can breathing roofing fume cause cancer?**

According to NIOSH\* Publication, *Hazard Review: Health Effects of Occupational Exposure to Asphalt* (December, 2000), there is no direct evidence that inhalation of asphalt roofing odors causes cancer in building occupants. Some epidemiological studies of asphalt workers suggest that the roof workers themselves may be at a somewhat increased risk for lung cancer, but even this is uncertain.

### **I feel that I am overexposed to roofing fumes. What should I do?**

You should do the following:

1. Take a break in fresh air. If symptoms return, temporarily relocate your work if possible.
2. Communicate your concerns to your supervisor immediately. Supervisors then should contact their department Facilities Coordinator and Safety Officer to report their concerns about roofing odors.

\*The National Institute for Occupational Safety and Health (NIOSH) is the federal agency responsible for conducting research and making recommendations for the prevention of work-related disease and injury.

3. Contact EHS or your personal physician to get additional advice if desired.

**Are there ways that I can reduce odors during roofing projects?**

Yes, you should do the following:

1. Keep windows closed when hot asphalt or coal tar roofing is being applied in the vicinity.
2. Contact EHS to see whether it is feasible to adjust the building's ventilation system to circulate more air within the building and minimize the amount of air drawn from outdoors. This can reduce the odor indoors.
3. Report roofing contractors who place asphalt kettles close to building air intakes to the project manager and to EHS.

**What can EHS do to help me?**

EHS can help building occupants who are exposed to roofing fumes by recommending additional controls to reduce odors and by acting as a liaison with contractors or project managers.

If you would like more information on roofing project odors, please contact the Office of Environmental Health and Safety at 814/865-6391.