

Work-related activities may disturb rock or soil containing naturally occurring asbestos (NOA) and release asbestos fibers into the air, increasing the risk of human exposure by breathing these fibers in. If NOA is not disturbed or fibers are not released into the air, then it does not pose a health risk. You can find more information on the occurrences of asbestiform minerals and fibrous amphiboles from the United States Geological Survey (USGS) reports on NOA available at <https://mrdata.usgs.gov/asbestos>.



### WORKPLACE STANDARDS AND REGULATIONS

The Occupational Safety and Health Administration (OSHA) has standards to protect individuals working in the general industry<sup>1</sup>, shipyards<sup>2</sup>, and construction<sup>3</sup> from the hazards of NOA, and DEP Bureau of Air Quality enforces these standards. The allowable limit of asbestos fibers in workplace air is 0.1 fibers per cubic centimeter during an 8-hour day and 40-hour week. Levels cannot exceed 1.0 fibers per cubic centimeter during a 30-minute period. The employer must regularly monitor and assess workplaces to make sure that no one is exposed to NOA above these limits. If the exposure has the potential to be above these limits, employers must use proper work controls and practices to reduce exposure to the lowest level possible and then supplement with proper respiratory protection to meet them. Exposure monitoring records must be kept for at least 30 years.

### WORKPLACE CONTROLS AND PRACTICES TO REDUCE NOA EXPOSURE

If work-related activities in an area with NOA cannot be avoided, then the following procedures should be considered to reduce risk:

- If NOA-exposure is above the allowable limits, have proper hazard communication and warning signs in the area.
- No smoking, eating, drinking or visitations should occur in these areas, and proper PPE must be provided and used to prevent exposure.
- Separate decontamination and lunch areas with proper hygiene practices must be provided to workers exposed to NOA above the limit(s) to avoid contamination. If possible, shower and change clothes before leaving work, and place dirty work clothes in a plastic bag until they can be washed. Do not shake out clothes before washing them.
- Before you disturb rock or soil that is likely to contain NOA, have an adequate protocol in place to control and contain the dust, and notify surrounding communities to avoid being outside or downwind of the site prior to the event.
- If the rock or dirt contains NOA, keep it wet while you are working, and seal it under a layer of clean soil and a layer of pavement, turf, or clean gravel to suppress the spread of dust.
- When drilling rock, put water in the drill stem or use a drill that collects dust. Have an exposure prevention plan for the wastewater and wash equipment when you finish work.
- If disposing of NOA onsite, bury it and cover the surface with organic mulch or soil, or at least 100 millimeters of rock or gravel from a NOA-free source. If the NOA material requires offsite disposal, it must be transported in a sealed vehicle and lawfully disposed of at a disposal site approved by the U.S. Environmental Protection Agency.
- Reduce driving speed on unpaved roads that may contain NOA, and clean vehicles driven over NOA.
- Train workers on the dangers of exposure and how to take precautions. Training records must be kept for at least one year beyond the last date of employment.
- Provide medical surveillance and examinations to workers who experience exposure at or above the allowable limits. Worker medical surveillance records must be retained for the duration of employment plus 30 years.

**If you have any questions, contact us at [env.health.concern@pa.gov](mailto:env.health.concern@pa.gov).**