

# Cement Asbestos Board 101



## A Quick Reference to Legacy Cement Asbestos Board Debris at Hanford

### **What is cement asbestos board (CAB) debris?**

CAB consists of cement and asbestos fibers mixed with water that is pressed into various sizes and then cured. Once cured, CAB becomes a very hard and durable substance that is not significantly affected by normal weather conditions or environmental damage, such as ultraviolet radiation.

### **Where is CAB on the Hanford Site?**

CAB was used most commonly for siding, roofing materials, and other various wall coverings. Throughout production and cleanup efforts, CAB debris became present across many areas of the Hanford Site such as building construction areas, historical demolition sites and waste burial dump sites.

### **Why is Legacy CAB debris found across the Hanford Site?**

Many buildings were modified or demolished for new or changing missions, resulting in the removal or alteration of the existing siding. In most cases, buildings were modified before CAB was viewed as potentially hazardous or before the current set of regulations governing handling and disposal of CAB were in effect. As a result, CAB debris was left in the building construction areas and historical demolition sites. In addition, CAB-sided buildings were subjected to windy conditions over the years, resulting in pieces of material being scattered across the site.

### **What is the risk of asbestos?**

Exposure to asbestos can occur in both the environment and workplace, and the associated risk is dependent on many factors and depends on the dose (how much), the duration (how long), and the exposure route (inhalation or ingestion). Other chemical exposures, age, gender, diet, family traits, lifestyle (especially smoking), and state of health also contribute to the risk from asbestos exposure. The inhalation of asbestos fibers (friable asbestos) can cause serious diseases of the lungs and other organs that may not appear until years after the exposure has occurred.

### **What are the dangers of CAB to workers?**

CAB does not readily release fibers and is not considered a significant health hazard unless it is made friable by mechanical means (e.g., sanding, grinding, or pulverizing).

### **What are the permissible exposure limits for asbestos?**

Employee exposure to asbestos must not exceed 0.1 fiber per cubic centimeter (f/cc) of air, averaged over an 8-hour work shift. Short-term exposure must also be limited to not more than 1 f/cc, averaged over 30 minutes. The PEL is accompanied by OSHA mandated work controls to minimize the release of asbestos fibers.

### **How are workers monitored and measured for CAB?**

Lapel air sampling is the nationally recognized sampling method for evaluating the amount of asbestos fibers in the breathing zone. At Hanford, the results of asbestos samples collected during work where CAB is present or while cleaning up CAB are below the analytical detection limit or significantly lower than the 8-hour PEL.

### **What tasks can be performed without risk to asbestos exposure from Legacy CAB?**

Asbestos sampling results demonstrate normal foot traffic will not create a significant risk in areas where there is CAB. If work activities need to be performed in areas where CAB is present or there is a potential for grinding or pulverizing the CAB, then additional hazard analysis should be performed to ensure employees' health and safety. If CAB is found in an area previously not identified as a legacy area, exercise caution and contact the responsible contractor industrial hygiene and environmental departments.

### **Where can I get further information on asbestos at Hanford?**

<http://www.hanford.gov/page.cfm?EmployeeAsbestosInformation>

