

**STATEMENT OF SUSAN PARKER BODINE
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U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE**

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Good Afternoon. I am Susan Parker Bodine, Assistant Administrator of the Office of Solid Waste and Emergency Response, U.S Environmental Protection Agency (EPA). I am pleased to appear today to discuss the Superfund cleanup activities in Libby, Montana. The Libby Asbestos Site is one of the Agency's top Superfund priorities and we remain committed to working with our state, Federal and local governmental partners to take the steps necessary to protect human health and the environment in Libby.

Background

For more than 60 years, a vermiculite mine owned originally by the Zonolite Corporation and purchased by W.R. Grace in 1963, was one of Libby's largest employers. The now-closed vermiculite mine once produced a large proportion of the world's vermiculite - with an estimated output of more than five million tons from 1963 to 1990. The processed vermiculite ore mined in Libby was used as a soil conditioner and in the manufacture of insulation, packaging and other materials.

Over the years it operated, the mine and related facilities employed a total of about 2000 workers in Libby. The ore was milled and beneficiated (partly cleaned of impurities) on the mine property. After milling, the ore was transported to a screening plant where the ore was

graded prior to shipment by railroad to other processing plants around the country. It also went to one of two processing plants that operated in Libby during different periods in the mine's history, prior to bagging for shipment.

The vermiculite ore contained amphibole asbestos. Exposure to asbestos resulting from operation of the mine and related processing facilities has led to serious public health impacts among members of the Libby community. Asbestos-related health effects include malignant mesothelioma, an incurable, fatal cancer of the chest cavity which is associated with asbestos exposure. Further, exposure to asbestos is associated with an increased risk of all lung cancers, particularly when combined with smoking. Exposure to asbestos can also cause asbestosis, a debilitating respiratory illness caused by progressive scarring of the lung tissue that can also be fatal, and pleural abnormalities.

Site Investigations and Response

In November of 1999, the EPA sent an Emergency Response Team to Libby to investigate asbestos contamination in the community. EPA's first priorities were to assess the risk to public health from asbestos contaminated vermiculite in Libby and then take action to reduce this risk.

In December of 1999, EPA began collecting samples - nearly 700 - from air, soil, dust and insulation at residences and businesses. Indoor air sample results were released in January 2000, first to property owners and then to the general public. EPA determined that Libby amphibole asbestos was present at unacceptable levels in certain locations. EPA immediately

began to inspect public schools for possible exposure to asbestos and to locate areas in and near Libby that were likely to have high levels of contamination. EPA took emergency removal actions at the Libby High School, the Libby Elementary School, and the Plummer Elementary School grounds. Removal actions were also taken at two former vermiculite processing facilities (the Export Plant and the Screening Plant).

Between 2000 and 2002, EPA addressed asbestos contamination at the vermiculite mine road and disposal areas. EPA also removed contaminated material from community ball fields and conducted sampling of area residences.

On May 9, 2002, EPA approved a Removal Action Memorandum Amendment for the Libby Asbestos Site, authorizing additional work at known locations and sources, including residential contamination in houses associated with vermiculite insulation. As of the end of 2006, removal activities have been completed at a total of 794 residential and commercial properties and more than 400,000 tons of contaminated soil and debris have been removed. EPA is also conducting cleanup activities in Troy, Montana. A removal action at Troy High School has been completed. Removal actions will continue, as needed, to address immediate risks before the final remedies are selected and carried out at Libby.

To determine the extent of contamination in Libby from amphibole asbestos, EPA established a program to inspect all properties. To date, EPA has screened more than 3500 properties in and around Libby for the presence of asbestos-containing materials. In addition, EPA, working with the Montana Department of Environmental Quality, expects to begin the site

investigation in Troy by May 2007 to determine which properties are contaminated with Libby amphibole asbestos and to fully support the field activities needed for the Troy Area Property Evaluation (TAPE). EPA plans to conduct property assessments in 2007 and 2008, totaling 1000 properties. EPA also plans to collect additional remedial investigation data from the Export Plant as well as the former Stimson Lumber Mill.

NPL Listing and Development of Long-Term Remedies

The Governor of Montana requested that the Libby site be listed on the Superfund National Priorities List (NPL) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which authorized each state to designate one site for inclusion on the NPL. The Libby Asbestos Site (which includes Troy, Montana) was added to the NPL in October 2002, authorizing EPA to take action to provide long-term protection at Libby through remedial actions. To select final remedies that will provide long-term protection at the Libby site, EPA must complete a baseline risk assessment that includes exposure data and toxicity information.

To develop additional information about potential exposure to amphibole asbestos, EPA will continue (and expand) the Outdoor Ambient Air Sampling Program that began last October as well as initiate a series of Indoor and Outdoor Activity Based Sampling (ABS) Programs. The Activity Based Sampling Programs are designed to evaluate the effectiveness of EPA's current property clean up program, and will also provide crucial asbestos exposure data needed for a complete baseline risk assessment.

To develop additional information about the toxicity of amphibole asbestos, EPA has been working on a toxicological review of non-cancer effects of amphibole asbestos and a reassessment of the Integrated Risk Information System (IRIS) asbestos cancer health assessment.¹ In addition, EPA has been working on an interim methodology to address cancer risk estimates for amphibole asbestos.

To ensure that EPA has all the information it needs to support a baseline risk assessment for Libby, in January 2007, EPA convened a group of more than 30 scientists from EPA, the Agency for Toxic Substances and Disease Registry (ATSDR) and the National Toxicology Program to identify data gaps and recommend additional studies. The meeting was hosted by EPA's National Health and Environmental Effects Research Laboratory in Research Triangle Park, North Carolina. The scientists also considered information from the Libby Technical Assistance Group.

Based on the recommendations developed from the January 2007 meeting, the Agency has identified and is implementing a comprehensive program of 12 studies to support the development of the Libby toxicity assessment and four studies that support important Libby exposure assessment analytical needs. (The list of studies is attached to this written testimony.) Detailed work plans are currently being developed, including consultation with other agencies (e.g., the ATSDR, National Institute for Occupational Safety and Health, and the National Toxicology Program) and external peer reviews. These studies are expected to take three years to complete. In the meantime, clean up work at the site will continue.

¹ IRIS is a database of human health effects that may result from exposure to various substances found in the environment. IRIS was initially developed by EPA staff to provide consistent information on chemical substances.

A definitive schedule for Records of Decision (RODs) at Libby is largely dependent on progress made on the exposure assessment and toxicity assessment work. However, we anticipate that at some of the former processing areas, if exposure pathways have been completely addressed, RODs may be completed in a shorter timeframe. EPA's tentative schedule will address seven site areas (operable units) between 2009 and 2011.

December 2006 Inspector General Report

In December of 2006, the EPA Office of Inspector General (IG) issued a report entitled, "EPA Needs to Plan and Complete a Toxicity Assessment for the Libby Asbestos Cleanup." The IG report focused on EPA's risk and toxicity assessment efforts associated with the removal of Libby amphibole contamination and on two public fact sheets that discussed residential exposure issues. In response to that report, EPA reaffirmed its intent to carry out all the studies needed to develop a long-term cleanup remedy for Libby. That work commenced with the January 2007 meeting at EPA's National Health and Environmental Effects Research Laboratory, which identified and recommended studies.

In response to the IG report, EPA also agreed to immediately review and revise materials provided to Libby residents regarding the safety of living with or handling asbestos. EPA had already discontinued use of the fact sheets dealing with what to do if you encounter vermiculite, including the fact sheet, "Living with Vermiculite." EPA has circulated informational materials for public comment. In addition, in early March 2007, EPA initiated a mass mailing of letters to property owners in Libby updating them on the current cleanup schedule and explaining how cleanup criteria are related to the final baseline risk assessment. A town meeting was held on March 7, 2007 (in addition to the regular TAG/CAG meetings) to discuss the work needed to

develop a baseline risk assessment and how EPA plans to incorporate that work into the cleanups and assessments currently being conducted in Libby and Troy.

Involvement of W.R. Grace

W.R. Grace, an owner and operator of the vermiculite mine and facilities, filed for Chapter 11 bankruptcy protection in April 2001. In late 2005, the Ninth Circuit affirmed the District Court's ruling that EPA was entitled to approximately \$55 million in clean-up costs. EPA has incurred more than \$100 million in response costs since the District Court's ruling. The United States continues to pursue reimbursement for Superfund program activities through cost recovery actions in the Federal Courts.

Conclusion

EPA remains committed to protecting public health and the environment by reducing exposure to amphibole asbestos in Libby and Troy, Montana. EPA will continue to work closely with our federal, state, and local partners as cleanup efforts progress. The cleanup activities in Libby, Montana, have always been an Agency priority and will remain one of the Superfund program's top priorities in the years ahead.

Libby Superfund Site Studies

List of Toxicity Assessment Studies

EPA Region 8 Libby Amphibole Reference Concentration Development
NCEA Libby Amphibole Cancer Assessment
EPA Region 8/USGS Preparation of Libby Testing Material
EPA Region 8 Fiber Size Distribution in Libby Vermiculite
NHEERL Dosimetry Model Development. Simulation Studies
NHEERL In Vitro Dissolution Assays
NHEERL In Vitro Toxicity Endpoints
NHEERL Comparative Toxicology in Mice and Rats
NHEERL Inhalation Toxicology in Rats
EPA Region 8/NCEA New Epidemiologic Information from Libby Montana Cohort
EPA Region 8/NCEA New Epidemiologic Information from Libby Montana Cohort
NCEA New Epidemiologic Information from Other Cohorts
OSWER Interim Cancer Risk Methodology

List of Analytical Methods Studies

EPA Region 8 Filter Verification Studies
EPA Region 8 Low-Level Soil Method Development
EPA Region 8 Comparison Direct & Indirect Preparations
EPA Region 8 Ambient Air Collection Method Verification

Acronyms

NCEA – EPA National Center for Environmental Assessment
NHEERL – EPA National Health and Environmental Effects Research Laboratory
OSWER – Office of Solid Waste and Emergency Response