

State of Oregon  
Department of Environmental Quality

Memorandum

Date: February 13, 2006

**To:** Al Kiphut, Administrator, Land Quality Division

**From:** Cliff Walkey, DEQ Project Manager

**Through:** Sheila Monroe, Eastern Region Cleanup Manager  
Jeff Christensen, Program Manager

**Subject:** Request for Orphan Site Designation – North Ridge Estates, ECSI No. 2335

The purpose of this memorandum is to request official designation of the North Ridge Estates (NRE) site as an Orphan Site, under Oregon Revised Statute (ORS) 465.381. ORS 465.381(6)(a) allows DEQ to use the Orphan Site Account for DEQ expenses at sites where the responsible party is “unknown, unwilling, or unable to take all required removal or remedial action.” DEQ has determined that parties potentially liable for contamination at this site are financially unable to undertake required investigative and remedial actions.

**Background**

The NRE site is an approximately 784-acre area in Klamath Falls. At one time, the majority of the site (approximately 442 acres) was occupied by the Marine Recuperational Barracks (MRB), which was the source of the asbestos contamination that is the subject of this memorandum.

Built in 1944 by the U.S. Department of Defense, the MRB consisted of about 82 buildings. It was sided with cement asbestos board and contained asbestos insulation, roofing material, floor tiles, and other asbestos-containing material (ACM). A series of boilers, tanks, and buried steam pipes with asbestos insulation provided heat to the buildings. In 1946, the U.S. Navy closed the barracks and declared the MRB as surplus. In 1947, the U.S. Government conveyed the site to the State of Oregon, which used it as the original location for the Oregon Technical Institute (OTI). The site reverted to the U.S. in 1964, when the state ceased to use it for OTI.

The U.S. sold the MRB property to a group of individuals, known as the “the Levine Group,” in 1966. In 1977, the property was transferred to Melvin L. Stewart, Maurice E. Bercot, and Kenneth L. Tuttle, M.D, who subsequently formed the MBK Partnership (MBK) and transferred the property to MBK. Most of the MRB buildings were demolished in the mid- to late-1970s and 1980s. Home construction began in what was known as the North Ridge Estates subdivision in 1993. Some of the lots were sold and developed, and are now occupied for residential use. There are 25 households situated within the presently-identified footprint of the contaminated area. This includes a total of 79 residents, 39 of whom are children.

**Summary of Contamination**

Demolition of the former MRB buildings and other facilities, and subsequent site development and construction resulted in the release of friable asbestos fibers and ACM at the NRE site.

ACM is a generic term related to several different building materials such as roofing, siding, insulation, or mastic; these materials have been shown to vary in the type and amount of asbestos present within their matrices. At NRE, ACM is primarily observed as coarse to fine fragments on the ground surface, which has continued to resurface due to frost heave and erosion during the past three years (following removal of visible ACM each year). Many areas of the site have visible ACM debris strewn across the landscape and/or ACM debris only marginally covered with soil. There are also another dozen or so known larger subsurface aggregations of ACM interspersed with other building demolition material in specific areas known as ACM burial or disposal sites, which have been specifically identified and mapped.

Asbestos is a fibrous habit of a family of hydrated metal silicate minerals. When disturbed, asbestos can release microscopic fibers and more complex microscopic structures into the air. In this friable condition, these fibers may cause respiratory ailments such as asbestosis when inhaled. Friable asbestos, including chrysotile and amphibole, is present in soil at certain locations within NRE. Potential asbestos exposure pathways at NRE result from activities in soil that create dust, such as walking, running, bicycling, riding all-terrain vehicles, construction activities, roto-tilling, gardening, and playing in site soils. Handling friable ACM and abrading ACM debris that is not friable are also potential asbestos exposure pathways.

### **Summary of Site Investigation and Response Activities**

In the late 1970s, DEQ responded to a complaint of accumulated asbestos debris at the property and observed a bulldozer/CAT driving over four to six acres of demolition debris described as a great amount of "white, fluffy" insulation materials being blown by strong winds. Because the local landfill reportedly would not accept asbestos materials, and due to concern about health risks to workers who were removing such a large quantity of materials, DEQ agreed to allow the property owner to dispose of the ACM on-site. An EPA compliance order in 1979 required that coverage and maintenance of the disposal site conform to the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for inactive waste sites. Among records available for review, there is no indication that NESHAP requirements for proper disposal were met. There is also no evidence that locations of ACM disposal sites were recorded on property deeds or similar documents, as required by the 1979 EPA Compliance Order. These activities occurred before either the state or federal environmental cleanup laws had been adopted.

In June 2001, after portions of the site had been developed into residences, DEQ's Air Quality program received a complaint of two large piles (180 linear feet) of asbestos-insulated pipe on the surface of a lot being developed at NRE. The DEQ inspector observed "white to pale brown colored platy looking" fragments on the lot and on other lots throughout the subdivision. The DEQ inspector collected piping and fragment samples, which were found to contain from 10% to 90% asbestos. DEQ issued a notice of non-compliance to the property developer, who removed the piping piles from the property surface in the summer of 2001.

In response to these violations, in June 2002, DEQ and MBK entered into a Mutual Agreement and Order (MAO) in which MBK agreed to:

- Complete a survey of properties in the subdivision to identify any visible ACM, any locations of underground asbestos-containing pipe, and any ACM disposal sites;
- Inform property owners if their lots contain exposed or buried ACM;
- Remove exposed ACM (approximately 50 tons);



- Either remove ACM from sites where ACM was buried pursuant to the EPA-authorized cleanup, or record on property deeds the presence and locations of those burial sites;
- Record on property deeds the location of underground asbestos-containing pipe; and
- Pay a \$10,484 civil penalty.

At about the same time as the MAO, the Oregon Department of Health completed a public health consultation, concluding that the site constituted a past and present public health hazard, due to the amount and distribution of friable asbestos. As a result, DEQ decided that asbestos contamination should be investigated and, if necessary, remediated by MBK under DEQ Cleanup Program oversight.

Work required by the MAO was suspended while DEQ and MBK attempted to negotiate an agreement. By March 2003, DEQ concluded that it would be unable to reach agreement with MBK on the terms of a Consent Order to complete an RI/FS and interim asbestos-removal actions. To address the immediate threats to NRE residents, EPA became involved at the site in April 2003 at DEQ's request. Between June and October 2003, EPA conducted a time-critical removal action that removed nearly 8 tons of ACM from the surface of the site.

In May 2003, EPA entered into an Administrative Order on Consent (AOC) with MBK and its individual partners to:

- Remove visible asbestos containing material;
- Provide a burial site location and stabilization plan;
- Develop a Health and Safety plan for the site;
- Develop a Streamlined Risk Assessment plan (SRA); and
- Develop a Quality Assurance and Sampling plan to support removal actions and the SRA.

From August 2003 to August 2004, EPA conducted a series of sampling events to test soil, indoor air, indoor dust, outdoor ambient air, and outdoor air during soil-disturbing activity. This sampling was designed to support estimates of risks posed to residents and others at the site from asbestos-contaminated soil.

In December 2004, EPA began negotiations with MBK over a new AOC for an RI/FS, and issued a final AOC to MBK in March 2005. Because the May 2003 AOC was not terminated, MBK remains responsible for obligations outlined in both administrative orders.

In April 2005, EPA implemented a voluntary relocation of NRE residents who expressed a strong interest in being moved during the summer months, when human health risks, particularly to children, increased. Of 27 households deemed eligible, 15 opted to be relocated between June 10 and September 10, 2005.

In June and July 2005, EPA conducted additional removal assessment at the site. During this assessment, workers encountered significant amounts of asbestos-containing insulation that had resurfaced, and conducted separate abatement actions at three residences.

#### **Potentially Responsible Party Information**

Parties potentially responsible for releases of asbestos at the site include those individuals and entities described under ORS 465.255. These include owners or operators at the time of the

releases (when the building demolition occurred) and owners who acquired property after the releases and knew or should have known of the releases.

Beginning in 2003, individuals and entities associated with the site, including MBK and its individual partners, the United States, the State of Oregon, and individual property owners, were involved in litigation to resolve liability for releases at the site and damages allegedly suffered by residential property owners. Settlement was finalized in a State of Oregon Consent Judgment (December 2005) and a Federal Consent Judgment (January 2006). All settling parties, including the individuals and entities associated with MBK, were released from liability under state and federal laws, and relieved of obligations under state and federal administrative orders.

The settlement provided a fund of approximately \$11 million to purchase homes and property of participating residential property owners. At this time, it appears that most of the settling homeowners will choose to participate and will leave the site; however, a few residents may remain at the site. The settlement also established a fund of \$2.5 million to be used by EPA to conduct a comprehensive RI/FS at the site, including a focused human health risk assessment.

The settlement process included an evaluation of MBK and its individual partners' financial assets, which resulted in a determination that those parties' respective abilities to pay for various components of the settlement were limited to the amounts provided in the settlement.

**Conclusions**

Based on DEQ's determination that the parties potentially responsible for releases at the site are unable to pay for further investigation and cleanup, an Orphan declaration is necessary to fund actions to address continuing threats to human health at NRE.

As discussed above, EPA will conduct an RI/FS and may conduct further removal or remedial actions. DEQ intends to continue collaborating with EPA in RI/FS design and implementation. Designating NRE as an Orphan would provide a complementary funding source to be used where needed to supplement actions that EPA undertakes using its Removal or CERCLA authority.

With the approval of Orphan designation for NRE, DEQ's Business Office will begin using Orphan funds to pay for Account-eligible activities, including any actions considered appropriate to identify other sources of cost recovery. Orphan funds will also be used as reimbursement for past DEQ involvement at NRE.

Please sign below to approve this request to designate NRE as an Orphan Site, and to authorize use of the Orphan Site Account.

Al Kiphut  
Al Kiphut, Administrator  
Land Quality Division

2/13/06  
Date