

NPL Site Narrative for Big River Mine Tailings/St. Joe Minerals Corp.

BIG RIVER MINE TAILINGS/ST. JOE MINERALS CORP. Desloge, Missouri

Conditions at Proposal (February 7, 1992): The Big River Mine Tailings/St. Joe Minerals Corp. site in Desloge, St. Francois County, Missouri, was used for disposal of lead mine tailings during 1929-58. The site is in a former mining region about 70 miles south of St. Louis often referred to as the "Old Lead Belt." The region (approximately 110 square miles) contains numerous tailings ponds and piles.

St. Joe Minerals Corp. operated the site, disposing lead-, cadmium-, and zinc-rich mine tailings over approximately 600 acres in a rural area bordered on three sides by Big River. In 1972, the company donated 502 acres of the land to St. Francois County, which then leased the land to St. Francois County Environmental Corp. (SFCEC). Since 1973, SFCEC has operated a sanitary landfill on approximately 60 acres of the southern section of the tailings pile.

EPA learned of the site in 1977, when an estimated 50,000 cubic yards of tailings slumped into the Big River during a heavy rain. After the collapse, the Missouri Department of Conservation detected elevated lead levels in bottom-feeding fish and advised local residents not to eat the fish. In 1981, St. Joe Minerals attempted to stabilize the tailings. In 1982, an extensive investigation conducted by the Columbia National Fisheries Research Laboratory detected elevated lead concentrations (5 to 26 micrograms per liter) in the surface water. Elevated lead levels were reported in the bottom-feeding biota. Big River is used for recreational fishing, water-contact recreation, and watering of commercial livestock.

In January 1988, during a site reconnaissance, EPA noted that a strong wind was creating a suspended particulate plume. EPA sampled the tailings pile in January 1988 and July 1990, detecting elevated concentrations of lead, cadmium, and zinc. High-volume air sampling conducted during the 1990 site investigation indicated that wind erosion and airborne dust created a potential hazard for on-site workers, residents, and children at a day care center. Approximately 23,000 people live within 4 miles of the site. People on the site are also exposed to contaminated soil.

Status (October 1992): EPA's emergency staff is assessing the site to determine if a removal action is necessary.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.