



Region 7

Iowa
Kansas
Missouri
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Fact Sheet

March 2004

Five-Year Review Completed Oronogo-Duenweg Mining Belt Site, Jasper County, Missouri

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) conducts regular checkups, called five-year reviews, on certain Superfund sites. These reviews are required by the Superfund law [42 U.S.C. § 9621(c)]. EPA Region 7 has completed the first five-year review of the Oronogo-Duenweg Mining Belt Site in Jasper County Missouri.

EPA conducted the five-year review to make sure the cleanup remains protective of human health and the environment.

BACKGROUND

The Oronogo-Duenweg Mining Belt Site is part of the Tri-State Mining District, which covers approximately a 2,500-square mile area in southwestern Missouri, southeastern Kansas, and northeastern Oklahoma. Mining, milling, and smelting of Tri-State District lead and zinc ore dates back to 1850 and continued until the 1970s. Mining operations at the site generated 150 million tons of wastes, of which approximately 9 million tons remain today. Additionally, at least 17 smelters operated within the site, mostly in the Joplin area. After the turn of the century, all smelting in Jasper County was conducted at the Eagle-Picher smelter in northwest Joplin.

EPA has established four Operable Units (OUs) at the site to address the risks associated with contaminated soil and

water. OU1 addresses mining waste piles located at the site. OU2 addresses lead contaminated residential yard soils in the smelter area. OU3 addresses lead contaminated residential yard soils in the mining wastes areas. OU4 addresses contaminated ground water.

NATURE AND EXTENT OF CONTAMINATION

The wastes from the mining, milling, and smelting of the ore has resulted in the significant contamination of ground water, surface water, and surface soil. Approximately 470 homes on the eastern side of the site rely on private, shallow ground water wells for drinking water. EPA identified at least 100 of these wells as having lead and cadmium levels above established health-based action levels. At least 2,500 residential yards were contaminated with lead above acceptable levels from mining and smelting activities. Investigations of the mining wastes indicated the piles could cause significant risks to the environment, particularly fish and mammals.

FIVE-YEAR REVIEW

EPA considered a significant amount of information before concluding that the remedies are functioning as designed. The immediate threats to people have been addressed. The remedy at OUs 2 and 3 currently is considered protective of human health and the environment

because all but a few residential yards, where access was denied, exceeding the soil action level for metals have been cleaned up. However, in order for the remedy to be protective in the long-term, institutional controls in the form of residential development ordinances must be adopted by the local governments to ensure safe development in contaminated areas. Additionally, placing deed notices on properties where owners denied access for cleanup will protect future buyers of those properties. The remedy at OU4, although not completed, is currently protective of human health due to the provision of bottle water to homes with contaminated wells. The remedy is expected to be fully protective for the long-term upon completion of the installation of the public water supplies. A site-wide remedy for Operable Unit 1 has not been selected. Therefore, Operable Unit 1, the mining wastes, still present a significant risk to the environment. The risk assessment completed for the Site did not identify any significant risk to people resulting from exposure to mine waste, except in a residential scenario.

Due to the fact that hazardous substances remain on site, additional five-year reviews will be required. The next review is scheduled to be conducted in 2007.

ADDITIONAL INFORMATION

The five-year review report can be reviewed at the following locations:

Joplin Public Library
300 Main
Joplin, Missouri

Carl Junction City Hall
105 North Main
Carl Junction, Missouri

Webb City Public Library
101 South Liberty
Webb City, Missouri

EPA Region 7
901 N. 5th Street
Kansas City, Kansas

This five-year review report may also be accessed at the following web address:

<http://www.epa.gov/region07/superfund/index.htm>
(under the heading of FIVE- YEAR REVIEW REPORTS).

If you have questions or need more information on the Oronogo-Duenweg Mining Belt Site or the five-year review process, please contact:

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