

NPL Site Narrative for Fairfield Coal Gasification Plant

FAIRFIELD COAL GASIFICATION PLANT Fairfield, Iowa

Conditions at proposal (June 24, 1988): The Fairfield Coal Gasification Plant occupies one city block in Fairfield, Jefferson County, Iowa. It is bordered on the west by a residential area. Iowa Electric Light and Power Co. (IELP) has owned the site since 1878. This company was known as Interstate Power Co. from 1878 to 1917 and Iowa Electric Co. from 1917 to 1953, when it assumed its present name. During 1878-1950, the facility produced a commercial fuel substitute from coal. Since 1950, the site has served as a maintenance garage.

The main wastes associated with coal gasification are polynuclear aromatic hydrocarbons (PAHs), which are found in coal tar, a by-product of gasification, and cyanide salts, which are found in iron oxide waste produced during purification of the manufactured gas. Some of the coal tar was sold and some was buried in on-site pits. Disposal methods for the iron-cyanide waste are not known, but it may also have been dumped on-site.

In 1985, IELP consultants detected PAHs, including benzene, phenanthrene, anthracene, pyrene, and benzo(a)pyrene, in ground water near the site. In 1987, EPA confirmed the contamination. IELP conducted quarterly sampling to monitor the spread of contamination. An estimated 1,100 people obtain drinking water from private wells within 3 miles of the site.

An intermittent stream flowing from the site intersects Cedar Creek 2.9 miles downslope. The creek is used for recreational activities.

Status (August 30, 1990): On March 31, 1989, EPA and IELP signed a CERCLA Administrative Order on Consent requiring IELP to conduct a remedial investigation/feasibility study (RI/FS) to determine the type and extent of contamination at the site and identify alternatives for remedial action. EPA has reviewed the RI/FS report. IELP is revising the report to reflect EPA's comments.

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.