PRELIMINARY

Health Assessment for

YELLOW WATER ROAD SITE

CERCLIS NO. FLD980844179

DUVAL COUNTY

BALDWIN, FLORIDA

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

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BALDWIN, FLORIDA

SEPTEMBER 13, 1988.

Prepared by:

State Health Office

Florida Department of Health and Rehabilitative Services (HRS)

Prepared for:

Agency for Toxic Substances and Disease Registry (ATSDR)

Background

Prior to commercial development, the site was part of a dairy farm. In the late 1940s, the site was purchased and commercial development began in November 1981 with the formation of American Environmental Energy Corporation (AEEC). The AEEC was formed on the premise that insulation fluids contaminated with polychlorinated biphenyl (PCBs) could be removed from transformers and the transformers salvaged. AEEC planned, through a joint venture with American Electric Corporation (AEC), to dispose of the PCB-contaminated fluids via an on-site incinerator. During a period of approximately two years, AEEC collected and stored a variety of transformers, drums and other PCB contaminated materials on site. Incineration of PCB-contaminated fluids did not occur as neither AEEC nor AEC were issued a permit for on-site incineration. In June 1986, the site was added to the National Priorities List (NPL).

The following documents were reviewed by Florida HRS:

1. Health consultation: Yellow Water Road NPL Site, Baldwin, Florida - November 1987.

2. Region IV Regional Response Team (RRT) Activation by - January, 1985.

3. Remedial Investigation/Feasibility Study (RI/FS) Work Plan by Conestoga-Rovers & Associate - October, 1987.

4. Draft RI/FS Work Plan and Project Operations Plan, Volumes 1 and 2 by Conestoga-Rovers & Associates - March, 1988.

5. Waste Characterization, Sampling and Analysis by Conestoga-Rovers & Associates - March, 1988.

6. Preliminary Hydrogeologic Assessment Yellow Water Road Site, Duval County, Florida - 1985

7. ATSDR Site Summary - April 1988

Environmental Contamination and Physical Hazards

According to the information provided, there is no physical hazard of concern at Yellow Water Road site. The plant is surrounded by an eight foot fence and a locked entry gate. All transformers have been removed and contaminated soils dug up, placed on concrete pads and covered with a tarp.

Contaminants of concern and their maximum concentrations at the site consist of the following:

- Warehouse well (ground water): Aroclor 1260 (930 ug/L) , Iron (2,700 ug/L), and Lead (120 ug/L).

- Stockpiled soil (surface soil): Hexachlorobenzene (0.75 mg/kg), Aroclor 1248 (540 mg/kg), and Aroclor 1260 (4300 mg/kg).

Contaminants of concern and their maximum concentration off-site consist of the following:

- Adjacent residential and mobile home wells (ground water): Iron (at 1,100 ug/L and 1,900 ug/L respectively).

- Private wells at 1181 and 1455 Yellow Water Road (ground water): PCBs (at 90 ng/L and 130 ng/L, respectively).

Potential Environmental and Human Exposure Pathways

The environmental pathway of concern is off-site migration of contaminated groundwater. The potential human exposure pathways of concern are ingestion of contaminated ground water and direct dermal contact with contaminated soil and ground water. The population of concern includes residents of adjacent homes and a trailer park located 0.3 mile due east of the site and those who reside in the previous owner's home located on site and others who may be residing on site in trailer(s).

Demographics

The Yellow Water Road site is located on 14 acres, one mile due south of the town of Baldwin on State Road 217 in Duval County. The terrain around the site is relatively flat with most of the area covered by brush and weeds. The west side of the site is bordered by property owned by a metal extrusion company (source of water unknown). Two residential homes with private wells are located upon the Yellow Water Road site property. There is a trailer park with 100 residents utilizing private well water for potable/domestic use located approximately 0.3 miles due east of the site.

Evaluation and Discussion

Pesticide, PCB, volatile organic compound and metal analyses of site ground water samples were done in 1988, but detection limits for vinyl chloride, tetrachloroethene, and chlorobenzene were not appropriate for health-related evaluation. Therefore, it is not known whether these compounds are at the site in concentrations which would threaten public health.

Conclusions and Recommendations

Monitoring results from 1985 (Preliminary Hydrogeologic Assessment-Yellow Water Road Site) indicated that ground water at the site and the residential area nearby is contaminated with PCBs. The source of contamination is still suspect because in 1980 a truck accident resulted in a PCB/oil release on the road near the site. The 1988 sampling results showed that soils as well as ground water at the site were contaminated with PCBs. Since residential homes and farmland are adjacent to the Yellow Water Road site, additional sampling of surface soil, surface water and ground water is needed to complete the off-site contamination study.

Based on the available information, this site is considered to be of public health concern because of the risk to human health caused by the likelihood of exposure to hazardous substances at concentrations that may result in adverse health effects from ground water. Because contamination was found in a private potable well near the site, immediate provisions should be made to replace potable supplies and restrict the use of contaminated water. The area should be surveyed to locate private wells, and then a comprehensive sampling program should be instituted to identify other people at risk of ingesting or utilizing contaminated water.