

PRELIMINARY

**Health
Assessment
for**

MONTCO RESEARCH

CERCLIS NO. FLD061897054

PUTNAM COUNTY

HOLLISTER, FLORIDA

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

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PRELIMINARY HEALTH ASSESSMENT

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HOLLISTER, FLORIDA

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Prepared by:

State Health Office

Florida Department of Health and Rehabilitative Services (HRS)

Prepared for:

Agency for Toxic Substances and Disease Registry (ATSDR)

Background

Montco Research Products, Inc. (MRP) is a production and purification operation for intermediate organic compounds and specialty chemicals. The compounds include: methane sulfonic acid, trichlorotoluene, dichlorotoluene, 1-chloromethylnaphthalene, and dichloromethylnaphthalene. The production processes generate discharge cooling waters and naphthalene distillation residues. Prior to the late 1970's, approximately 1,000 55-gallon drums of naphthalene distillation residues were buried on site. The surface impoundment area also contains distillation residues. Apparently, these residues were pulled into the discharge waters by vacuum systems used in the distillation process prior to July 1980.

The following documents were reviewed by Florida HRS:

- 1) Technical Assistance Team, Montco Research Products, Hollister, Florida; TD #04-8511-19 well depth and well use survey within a one mile radius of Montco Research Products, Inc. by Roy F. Weston, Inc. - December 1986.
- 2) Preliminary Hydrologic Investigation of the Montco Research Products Site, Hollister, Florida by Geraghty & Miller, Inc. - December 1983.
- 3) Sampling Data for Testing Performed for Montco Research Products, Inc. by Enviropact, October 4, 1985
- 4) Trip Report, Montco Research Products, Hollister, Florida prepared for Florida DER by Woodward-Clyde Consultants - October 1988.

Environmental Contamination and Physical Hazards

No off-site contamination has been identified. On-site media of concern include the following:

<u>MEDIA</u>	<u>CONTAMINANT</u>	<u>MAXIMUM CONCENTRATION LEVEL</u>
Surface Water (ug/L)	Arsenic	60
	Cyanide	40
Ground Water (ug/L)	Benzene	10
	Organic Halogens	42
	Xylenes	530
Soil (ug/kg)	Arsenic	1400

Naphthalene vapor and dust can form explosive mixtures with air. This property of naphthalene constitutes a physical hazard.

Potential Environmental and Exposure Pathways

Presently, environmental pathways include surface water, ground water and soil. An additional potential environmental pathway that has not been evaluated is air.

Based on currently available test results, human exposure pathways are of little concern. Contact with Rice Creek surface water is unlikely due to the difficulty of access. Ingestion of ground water and inhalation of airborne fumes or dusts are potential human exposure pathways.

Demographics

The MRP site is located in Putnam County, approximately three miles north of Hollister, Florida. The facility is situated on the western bank of the Rice Creek Swamp and east of Etonia Creek basin. Within a one-mile radius of the MRP site, only the western area is populated. Approximately 152 people live in this area full-time, and there are 19 seasonal residents. The residential capacity of the area is greater than 100 times the current level and roads have been installed to facilitate development.

The area east of the site is a wildlife management area under the control of Georgia Pacific. It is utilized primarily for timber growth.

Evaluation and Discussion

Residents utilize 41 potable wells within a one-mile radius which tap the Surficial, Intermediate and Floridan Aquifers. HRS surveyed fourteen private wells in the area for primary, secondary, volatile, acid extractable and base neutral compounds. Iron was the only compound scanned for that was detected in excess of state drinking water standards. Although the wells are west of the site and the ground water flow direction is thought to be to the east, several of the wells are within 225 feet of the former surface impoundment and draw down may affect the ground water flow direction. Unless a receptor population for ground water can be established west of the site, ground water contamination is not of immediate concern. The source of potable water on site has not been determined.

Rice Creek and surface runoff at the site flow into Rice Creek Swamp. Swamp sediments are comprised of approximately three feet of sandy soil. This sandy soil is underlain by peat which may bind most of the contaminants. Uptake of contaminants by local fauna is also a possibility, but according to the Florida Game and Freshwater Commission, Rice Creek is not a good fishing area due to occasionally poor water quality and difficult creek access. The presence of bass is not known in the area, but there are a few Warmouth sunfish. Other fauna were not addressed.

Soil ingestion is of concern to on-site workers and the nearby populations that inhale airborne dusts. Heavy organic vapors have been noted in the distillation work shed and workers are not provided with eye or respiratory protection.

At this time, remedial recovery of liquid from the surface impoundment has been completed. Removal of this liquid revealed 4 to 6 inches of lime sludge in the impoundment which has not been analyzed or removed. Recovery of the buried drums began in October 1988 and completion is expected in early 1989.

Conclusions and Recommendations:

Based on the available sample results, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances in surface water, surface soil and ground water. All of the identified contaminants were detected on site, therefore workers or trespassers would be the population at risk.

Air quality, specifically as it applies to worker safety, has not been addressed. Air quality testing should evaluate compliance with OSHA standards and EPA air quality levels.

Private wells closest to the northwest region of the former surface compoundment should continued to be monitored. If these wells test positive for contaminants, monitoring should be extended to delineate the ground water contamination plume and provisions should be made to provide potable supplies and restrict the use of contaminated water.