

Montco Research Products
Janice Drive
Hollister, Florida
County: Putnam
District: Northeast
Site Lead: Northeast District
Approved for Cleanup: February 13, 1986
Delisted: November 11, 1992
HWC # 018

Site Description and History

The Montco Research Products (MRP) site is located approximately three miles north of Hollister, Florida in Putnam County in Section 34, Township 09S, Range 25E at 29° 40' 13.1499" N, 81° 47' 30.5278" W. The MRP facility began operating in 1965 and is a small, private manufacturer and refiner of specialty chemicals. MRP has been manufacturing 1-chloromethylnaphthalene and 1,1,1-trifluoroethane since 1965, and ethylbenzyl chloride since approximately 1983. MRP is also engaged in research to develop new specialty compounds. Some of the compounds used to manufacture these commercial chemical products include naphthalene, ethylbenzene, hydrogen chloride, paraformaldehyde, toluene and hydrogen fluoride. The manufacturing processes used on site are halogenation, condensation and distillation. Cooling water from the distillation process is discharged to a creek which flows into the Rice Creek Swamp.

Until 1980, MRP disposed of its distillation residues by drumming of the waste product and burial of the drums on the MRP property. Approximately 1000 drums were disposed of in this manner. Carryover from the distillation process which leaked into the vacuum system was disposed of in a cement-lined surface impoundment. In 1980, improvements in the distillation system eliminated the need for disposal to the surface impoundment.

In July 1980, a fire destroyed the MRP drying and storage buildings. The chemicals that burned were naphthalene, paraformaldehyde, hexamethylenetetramine and various organic solvents. Run-off from the fire-fighting activities entered Rice Creek Swamp.

Threat

Results from a 1981 EPA investigation indicated that Rice Creek Swamp had been contaminated in the area immediately east of the MRP processing plant. On-site groundwater and soils in the drum disposal areas were also shown to be contaminated. Groundwater samples contained toluene, chromium, arsenic, copper, lead, cyanide and barium. Composite soil samples contained chromium, copper, lead, cyanide, barium, nickel, zinc and mercury.

Results from a 1988 Contamination Assessment, conducted by the Florida Department of Environmental Regulation (FDER, now DEP) contractor, and indicated contamination of soils and groundwater in the vicinity of the processing plant and surface impoundment. Groundwater

samples contained benzene, toluene, ethylbenzene, xylenes, trichlorobenzene and naphthalene. Soil samples contained naphthalene, arsenic, chromium, copper, lead, nickel and zinc. A number of unidentifiable organic compounds were also detected in the soil and groundwater samples. The site was remediated via a combination of removal with offsite disposal, landfarming and groundwater monitoring. The site was delisted in November 1992.

Response Strategy and Status

In July 1981, the EPA-Region IV Surveillance and Analysis Division conducted a hazardous waste site investigation. Following the results of this investigation, the FDER contacted MRP concerning cleanup activities. In March 1983, the FDER submitted a Consent Order to MRP, which included requirements for a hydrogeologic study, groundwater monitoring plan, cessation of discharge to Rice Creek Swamp, and removal of buried drums. MRP refused to sign the Consent Order. The FDER went to hearings in Palatka in February and March 1984 on an amended complaint. The purpose of these hearings was to obtain site access for conducting a Contamination Assessment and effecting site cleanup.

MRP said it was excavating drums and shipping them, along with contaminated soils, as non-hazardous materials to Pinewoods, South Carolina from at least February through May 1984. The projected time for excavation of all drums was at least two years. The FDER proposed that MRP enter into a Consent Order by which the FDER would contract for immediate removal. MRP rejected the plan.

In June 1985, a judge ruled that the FDER was not allowed to remove the drums from the site; however the FDER was allowed site access to conduct an assessment with the condition that FDER could not spend WQATF money. The FDER appealed the ruling in July 1985, and the District Appeals Court ruled in favor of FDER in April 1986. MRP filed to seek discretionary review of the appeals court ruling before the Florida Supreme Court. The Supreme Court denied this review in September 1986. The FDER moved to have the original court order remanded so that site investigation and remediation could begin. Site access agreements were signed by MRP and the FDER in April 1987.

The site was proposed for the NPL in October 1984. In July 1985, the EPA issued an administrative order requiring MRP to initiate drum removal. EPA tried to negotiate a Consent Order with MRP, but MRP refused. EPA then suspended enforcement activity until Superfund was re-authorized. The State Attorney's Office in Palatka, Putnam County, issued an order requiring sampling in November 1986 by FDER and its contractor. Criminal charges for numerous violations were filed against MRP. In June 1987, EPA conducted further groundwater sampling and analysis of wells on the MRP site and local residential wells.

In September 1988, the FDER State contractor, Woodward-Clyde Consultants, completed a Contamination Report for the MRP site. Soils analyses in the vicinity of the temporary drum storage area and surface impoundment indicated contamination by a number of known and unidentifiable organic compounds. Ground water on site is contaminated by volatile organics.

Arsenic, lead and chromium in the background monitor well were above primary drinking water standards.

MRP submitted a drum removal work plan for FDER and EPA approval in July 1987. A revised work plan was submitted in October 1987, but MRP failed to obtain funds necessary to implement the work plan. From November 1988, MRP implemented the drum removal with existing funds. All materials stored in the on-site surface impoundment were removed and transported to the GSX facility in Pinewoods, South Carolina for proper disposal. MRP completed excavation of buried drums, still-bottom residues and contaminated soils. In December 1988, MRP screened the excavated materials; all material larger than two inches was transported to GSX for disposal. EPA Emergency Services and their contractor, Wastes Inc., conducted confirmatory analysis of the excavated areas in January 1989 to ensure all contaminated soils had been removed. Further analysis of contaminated areas was conducted by the FDER contractor in September 1989.

In March 1989, the trial of State of Florida vs. Montco Research Products, Inc. and Maurice Miville was held in the Third Judicial Circuit Court. The defendant Montco pled "nolo contendere" to disposing of deleterious substance. The defendant Miville pled "nolo contendere" to criminal pollution.

Failure to show hydraulic connection between the surficial and Floridan Aquifers resulted in MRP being reassessed under the EPA Hazard Ranking System. The revised ranking indicated that the MRP site did not qualify as a Superfund site and, in March 1989, the MRP site was deleted from the proposed NPL.

In January 1990, the FDER contractor, Woodward-Clyde Consultants (WCC) completed additional fieldwork and a Risk Assessment (RA) for the MRP site. The RA determined there was no threat to human health or the environment from contaminant levels detected in the soils on site. The ground water contamination in the surficial aquifer is a health threat if used as a drinking water source; however, there are no surficial aquifer drinking water wells on the MRP property and none are planned in the future. Ground water flow is to the east towards Rice Creek Swamp, making use of the surficial aquifer extremely unlikely. The buried drums and surface impoundment have been remediated and are no longer potential contaminant sources. The processing plant and the temporary drum storage area appear to be the only remaining potential sources of contamination. The source of the groundwater contamination entering the MRP property has not been identified.

WCC has been conducting annual groundwater and surface water sampling for the purpose of modeling contaminant migration and degradation. The July 1990 modeling effort indicated a potentially continuous contaminants coming from the general area of highest groundwater contaminant levels. The November 1991 modeling effort indicated a second groundwater contaminant plume in the vicinity of the temporary drums storage area.

In December 1990, Montco proposed conducting an Initial Remedial Action for excavation of highly contaminated soils in order to reduce further contamination of the surficial aquifer. In June 1991, Montco submitted a soil Remedial Action Work Plan to FDER for review. The work plan was revised and subsequently approved by FDER in November 1991. In January 1992, the MRP contractor initiated the work plan which consists of excavating the excessively contaminated soils in the immediate vicinity of the processing plant and then onsite treatment by landfarming.

In March 1992, the FDER signed a Decision Memo returning the project management lead to the FDER Jacksonville District office. In November 1992, the Montco site was deleted from the State Action List. The remaining contamination issues for the Montco site will be managed under District Enforcement.