

MRI Corporation – Tampa
Stannum Street, ½ block east of US Highway 301
Tampa, Florida
County: Hillsborough
District: Southwest
Site Lead: EPA
Placed on National Priorities List: December 23, 1996
ERIC ID # 3894

Site Description and History

The MRI site is located on 11.7 acres in an industrial park near the intersection of US Highway 301 and State Highway 60 in Brandon, Florida, east of Tampa in Township 29S, Range 19E, Section 13 at 27° 57' 36.0000" N, 82° 21' 20.8800" W. Remaining permanent structures at the site are a concrete block warehouse and three large concrete foundation pads. Open areas are covered in grasses. A ponded area with wetland plant species is located on the northwest portion of the site. The site is bordered by commercial/industrial and agricultural properties.

The site began operation in 1961 as a detinning/steel recycling facility. Electroplating capabilities were added in 1975 and a municipal solid waste recycling operation was put into service around 1980. The facility was closed in 1987 and is presently vacant.

Threat

Site soils and sediments are contaminated with metals at concentrations exceeding levels considered protective for residential and industrial use and are acting as a source of contamination to the underlying aquifers. Groundwater in the surficial aquifer is also contaminated with metals at concentrations exceeding primary and secondary drinking water standards. Metals exceeding these standards include lead, aluminum, cadmium, iron, and manganese. While the surficial aquifer is not currently used as a potable source of drinking water in the area, contamination in that aquifer poses a threat to the underlying Floridan aquifer, the primary source of drinking water. There is evidence of a breach in the confining layer separating the surficial and Floridan aquifers. The secondary drinking water standard for iron is exceeded in a sinkhole area leading to the Floridan aquifer onsite. The extent of site-related contamination in the Floridan aquifer has not been determined.

Response Strategy and Status (December 2020)

EPA conducted a screening site inspection in 1989, which showed metals contamination in site soils and groundwater. Additional sampling was undertaken by EPA in 1992. EPA proposed the site for listing on the NPL in June 1996. Listing was finalized in December 1997. In May 1997, MRI's parent company, Proler International, expressed an interest in conducting a portion of the Remedial Investigation/Feasibility Study (RI/FS). EPA determined that the offer was not sufficient and proceeded to conduct the RI/FS under fund lead.

Fieldwork for the RI was conducted in two phases between November 1997 and April 1998. The final Remedial Investigation Report was completed in February 1999 and the final Feasibility

Study Report in June 1999. Due to the apparent limited public interest, EPA determined that a public meeting to present the RI/FS results and the EPA's proposed site remedy was not necessary.

EPA provided DEP with a Draft Proposed Plan for an Operable Unit 1 (OU 1) remedy for site soils and sediments in June 1999 and a draft Record of Decision (ROD) in August 1999. The groundwater remedy will be addressed as OU 2. EPA initially proposed excavation of contaminated soils with offsite disposal as the soil remedy. The proposed remedy was subsequently modified to specify onsite treatment by solidification/stabilization with onsite disposal of the treated materials.

DEP provided comments to EPA on the draft ROD in September 1999. While excavation and treatment by solidification/stabilization is a proven technology and commonly used to remediate metals contaminated soils, the proposed soil cleanup criteria do not address all contaminants with concentrations exceeding levels considered by DEP to be protective for industrial land use. The criteria do not adequately address contaminant sources to groundwater, including contaminants exceeding State secondary drinking water standards.

EPA signed the OU 1 ROD in December 1999 without modification to the soil cleanup criteria. In September 2001, a letter from Secretary David Struhs indicated that DEP agreed with solidification/stabilization as an appropriate cleanup alternative but did not agree that the soil cleanup goals would be protective of groundwater. In December 2001, the Department of Justice filed the Consent Decree for design and implementation of the soil remedy in accord with the original ROD criteria.

Tampa Bay Water completed construction of an access roadway immediately north of the MRI site in an area that is contaminated with site-related contaminants. Contaminated soil from the roadway has been stockpiled on a lined area of the MRI site and will be addressed during remedial action.

Soil and groundwater samples taken in 2003 and 2004 indicate substantial deposits of debris from detinning operations. Groundwater in the surficial aquifer is alkaline with high levels of lead and other primary and secondary contaminants including sodium, iron, and aluminum. Groundwater contamination spreads offsite to the east across a railroad track and onto adjacent properties and may be associated with offsite drainage pathways for surface water.

The draft Feasibility Study (FS) for the OU 2 groundwater remedy was submitted in August 2006 and included a containment alternative comprised of a cap and slurry wall. DEP, EPA, the Potentially Responsible Party (PRP), met in November 2006 to discuss the PRP's recommended groundwater containment alternative and to identify what data was necessary to confirm that the proposed alternative would be effective at this site. Additional site data to assess the underlying confining layer and provide information necessary for the final FS was collected in 2007. The Slurry Wall Alignment Report and Slurry Wall Compatibility Testing Report were completed in April 2007. DEP provided comments on the FS in December 2006. The final Groundwater Fate and Transport Evaluation Report was submitted in October 2007. The final OU 2 FS was

submitted in November 2007, and the EPA Proposed Plan was published in May 2008. The draft Record of Decision (ROD) for OU 2 was sent for DEP review in June 2008.

EPA signed the final OU 2 groundwater ROD in September 2008. The remedy consists of a cap and slurry wall that will contain the more highly contaminated groundwater and soils onsite. Lower levels of groundwater contamination offsite will be addressed by natural attenuation consistent with a separate consent order between the PRP and DEP. Compatibility testing has confirmed that the proposed slurry wall material will not be adversely affected by groundwater contamination at the site.

Although DEP had concerns about the Remedial Design for the OU 1 and OU 2 soil and groundwater remedies, EPA approved the design September 30, 2010. DEP concerns about this design included a questionable presence of a competent clay layer suitable for anchoring the slurry wall to ensure the effectiveness of the containment remedy.

DEP tasked Geosyntec to perform some additional sampling at the MRI site to confirm contamination delineation and that the proposed excavation limits are adequate. However, not all the areas that were in question were accessible due to high standing water at the site. Some of the areas that were sampled located within the proposed barrier wall showed concentrations that exceeded ROD actions levels. These concentrations were considered anomalous by the EPA and they indicated that they had concerns about data quality since the SOP's that the MRC group has developed were not used. The EPA also cited possible smearing during sampling activities.

Civil construction activities started at this site on November 14, 2011 and construction of the selected remedy is expected to last through December 2012. An ERP permit was issued by the Southwest DEP district on November 23, 2011. Soil stabilization has been completed and a hydraulic barrier wall is currently being constructed.

At one point during soil stabilization activities, a high rainfall event occurred. This rainfall event caused water, that had the potential to have contamination associated with it (contact water), to be discharged from the site to the ditch along the CSX right away. This discharge was due to a berm failing to retain the contact water onsite. The discharge area was assessed in accordance with the ERP permit. All concentrations from laboratory analysis came back below the concentration levels that would require additional actions. To help prevent this from occurring again the berm was repaired and the site was re-graded to direct the flow of water towards the inner portions of the site.

The PRP and DEP have reached an understanding, documented in a letter of understanding and a Consent Order with representatives of the MRC group. This understanding pertains to groundwater delineation and monitoring of groundwater contamination that is located off the MRI property.

As of April 2013, all onsite remedial action construction was complete. A punch list of remaining tasks was developed at the pre-final construction inspection meeting and were addressed. The

Construction completion inspection has been conducted and all activities are approved and complete.

A Restrictive Covenant was signed in March 2016 restricting the use of the property and the groundwater. On-site engineering controls exist at the site which include a groundwater containment wall, cap, and cover.

The first Five-Year Review was received and approved by DEP in July 2016. The report recommended continued monitoring and investigation of the offsite exceedances of sodium.

Schedule

Groundwater monitoring is ongoing and will continue, on a semi-annual basis, to evaluate the sodium and arsenic exceedances in the surficial groundwater. The containment wall and cap are inspected and maintained on a quarterly basis. The next Five Year Review should be scheduled for 2021.