

**Technical Review of the Mound Site**  
**Prepared for the Expericenter**  
by **EHS TECHNOLOGY GROUP, LLC**

**Reference Document:** Miami-Erie Canal Proposed Plan (Public Review Final, June 2004), the Miami-Erie Canal Area Residual Risk Evaluation (Public Review Final, June 2004), and the Screening Level Ecological Risk Assessment, Miami-Erie Canal Area (Public Review Final, June 1, 2004).

**Purpose:** The Proposed Plan, Residual Risk Evaluation, and Ecological Risk Assessment comply with the US Environmental Protection Agency's CERCLA process required for the completion of remediation of an inactive hazardous waste site. At the Mound Plant, this process is also governed by the *Mound 2000 Work Plan*. The Proposed Plan evaluates the appropriate final environmental remedy from, typically, a selection of alternative remedies. Under the *Mound 2000 Work Plan*, the Residual Risk Evaluation (RRE) evaluates residual human health risk from a parcel slated for transfer of ownership after all Potential Release Sites (PRSS) and buildings on the property have been determined by the Core Team to require no further action (NFA). At the canal site, the RRE also meets the CERCLA requirement for a human health risk assessment of the site. The Screening Level Ecological Risk Assessment (SLERA) evaluates residual risk to aquatic and terrestrial organisms. Although a SLERA is not typically required for parcel transfers under the *Mound 2000 Work Plan*, it was required by the Core Team for the Miami-Erie Canal area (including the South Pond, Overflow Creek, and adjacent areas) because the areas include riparian forest and waters/waterways of the United States and are intended to retain a recreational (park) reuse scenario.

**Background:** As noted above, the three documents reviewed are part of the remediation process at the Miami-Erie Canal. The Proposed Plan incorporates the findings of the RRE and SLERA and addresses the contaminated soils and sediment within the canal areas. Following a 30-day public review period of the Proposed Plan, DOE will make the final remedy selection decision in the Miami-Erie Canal Record of Decision (ROD). The ROD will include a responsive summary addressing stakeholder concerns. The ROD will then be submitted to USEPA and Ohio EPA for review and comment. After reviewing and responding to comments, and revising the ROD, if necessary, the ROD will be submitted for signature to the USEPA Regional Administrator and the appropriate designated personnel from the Ohio EPA. Notice of availability of the ROD will be published in a major local newspaper of general circulation and the ROD will be made available for public inspection and copying at or near the facility prior to implementation of the selected alternative. Given that the proposed selected remedy is no action, filing of the ROD will complete the remediation process for the Miami-Erie Canal area.

**Technical Assessment:** The proposed remedy alternative for the Miami-Erie Canal area, and the only alternative considered, is a no action alternative, given that remediation of the canal area was completed in 1998. MMCIC concurs that the proposed remedy is appropriate considering the results of the Residual Risk Evaluation (RRE) and the Screening Level Ecological Risk Assessment (SLERA).

In the RRE, residual contamination in the Miami-Erie Canal area was evaluated for three potential use scenarios: 1) recreational adults and children, 2) residential adults and children, and 3) an adult off-site construction worker. Both the recreational and residential exposure scenarios were new compared to RREs performed for other Mound transfer parcels; however, MMCIC concurs with the exposure parameters utilized to evaluate these use scenarios. In addition, although residential use of the canal area is unlikely, risk to residential receptors was included to evaluate the need for land use restrictions. The construction worker was also included to determine whether land use restrictions were needed.

All three scenarios assume exposure to soil and sediment. The canal RRE also includes a qualitative analysis report of risks due to polynucleic aromatic hydrocarbons (PAHs), compounds typically found in asphalt and heavy fuels. RRE results show that when risks due to PAHs are excluded, residual risks to all receptors fall within the acceptable regulatory risk range. In the qualitative PAH analysis, PAH levels in the Miami-Erie Canal area were found to be similar to background PAH levels in the Miamisburg urban area and not the result of Mound operations. Therefore, the RRE concludes that no land use restrictions are needed for the Miami-Erie Canal, and MMCIC agrees with this conclusion.

The SLERA found that there is a potential for adverse effects on terrestrial organisms from residual chemical contamination (i.e., PAHs, phthalate esters, and metals). However, refinement of the preliminary COPCs (constituent of potential concern) found that negligible ecological risk is posed by these contaminants. The refinement included a background evaluation, re-calculation of hazard quotients (HQs) using an average exposure point concentration (i.e., 95% UCL), evaluation of bioavailability of COPCs, adjustment of the area use factor, and a re-evaluation of ecological screening levels. With these refinements, the calculated ecological risk is within acceptable levels and the SLERA recommended that no further action is necessary. MMCIC accepts this recommendation.

MMCIC notes that as stated in the RRE, human exposure to groundwater in the Miami-Erie Canal area was not included as a media of concern since water will be provided by the City of Miamisburg. However, the Proposed Plan and RRE state that potential risk due to exposure to groundwater will be evaluated by the site-wide RRE and ROD. MMCIC asks that they be kept apprised of the status and execution of those evaluations as the Mound cleanup nears completion.