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## **Technical Review - Building 22**

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# Technical Review of the Mound Site

## Summary

by **EHS TECHNOLOGY GROUP, LLC**

**Reference Document:** Building 22 Data Package (Demolition); Public Review Draft, October 2004

**Purpose:** The purpose of this document is to notify the public of the Demolition Activity proposed for Building 22.

**Assessment of Review:** EHS has had the opportunity to review and comment on this Building Data Package. We concur with the planned demolition action for the Building 22. This data package was prepared in accordance with the requirements specified in the *Work Plan for Environmental Restoration (ER) of the DOE Mound Site, The Mound 2000 Approach*. As such, all appropriate inquiry was made into the condition of the building and any associated environmental concerns that would impact the demolition activities were assessed.

**Technical Analysis:** Building 22 (Waste Staging Facility) was originally constructed for warehouse storage. A subsequent renovation created additional square footage, and approximately one-third of the building was used as office space and two-thirds used as warehouse storage space. In 1995, the building was modified to accommodate solid radioactive LLW waste storage activities. Surveys have determined that the building is not contaminated with either radiological or energetic materials and no hazardous wastes were generated in the storage area. While no contamination was found in the building, one soil boring located within 15 feet of the perimeter of Building 22 was found to have elevated levels of Thorium-232. The borehole had a level of 2.3 pCi/g, which is above the cleanup objective of 2.1 pCi/g but is below the Hot Spot Criteria of 3.5 pCi/g. This sample location will be included in the residual risk evaluation for the parcel prior to transfer.

As always, coordination between CH2M Hill, the cleanup contractor at the Mound Site, and Miamisburg Mound Community Improvement Corp. (MMCIC -developer of the Mound site) will result in the return of these areas to the proposed use in the Mound Comprehensive Reuse Plan.

**Substantive Comments:** EHS concurs with the planned demolition action for Building 22. We understand that one area of soil contamination was found within 15 feet of the building (Thorium-232 at a level of 2.3 pCi/g). While this level of thorium in one borehole is not necessarily significant, we are concerned that residual contamination may be located under the footprint of the building. This contamination could be the result of activities inside the building (although this is unlikely due to the recent timeframe that radioactive materials were stored in the building (1995 to present). However, this building is in close proximity to PRS 66, which has widespread contamination. Confirmation that contamination from PRS 66 has not migrated beneath the building would be part of a prudent verification sampling program and we recommend the contaminants of concern (COCs) for PRS 66 also be included in the sampling protocol of the VSAP for this building.

Coordination between CH2M Hill, the DOE and MMCIC to ensure the building area is left in a condition consistent with the Mound Reuse Plan.

If EHS's understandings are correct, no specific response to the above comment is necessary, and we understand that these comments will be included in the OSC report.