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NOV 30 1999

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0185-00

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**REQUEST FOR APPROVAL OF ACCELERATED EXCAVATION OF WASTE PIT 5**

The purpose of this letter is to request the U.S. Environmental Protection Agency (U.S. EPA) and Ohio Environmental Protection Agency (OEPA) approval to proceed with the excavation of Waste Pit 5 prior to the planned start time as documented in the agency approved Excavation Plan.

The objective of entering into Waste Pit 5 earlier than planned is to ensure that methods and means are in place to facilitate that the most effective and efficient remediation is undertaken. In particular, with the capability to now operate the dryer, the focus of operations needs to be on ensuring that full advantage is taken in the use of the dryer. Our excavation of Pit 3, which was initiated on September 3, 1999, leads us to conclude that the Pit 3 material is fairly dry. There are probably patches of moist materials that need to be dried; however, efficient use of the dryers' installed capacity is facilitated by a steadier, more continuous source of consistently wet material. To support this objective, the key is to have sufficient feed stock available; hence, the need to excavate and dry Pit 5 which is known to have a substantial moisture content.

In the Excavation Plan, the excavation of the waste pits was sequenced through a series of nineteen excavation phases. The development of these phases was based on several factors including the need for appropriate blending stock to meet the Envirocare Waste Acceptance Criteria (WAC), the need for meeting established Department of Energy (DOE) safety basis requirements, and the need for providing consistent and adequate feed stock for the processing facility (i.e., the dryer), etc. The general approach, as documented

through these nineteen phases, was to begin excavation activities in Pit 3, followed shortly by Pits 1 and 2. Pit 4 would then be added about 1½ years into the process, followed by Pits 5 and 6 (both about a year later), then the Burn Pit (about a year after that), and ending up with the Clearwell.

A primary driver in holding back the excavation of Pit 5, was the desire to maintain the project as an "Other Industrial Facility". Specifically, in order to maintain this hazard category designation, Pit 3 and Pit 5 could not be open at the same time due to anticipated hazards. In the process of finalizing the design, however, it was found that this hazard category designation could not be achieved, and the facility is currently designated as a "Radiological Facility". Under the "Radiological Facility" designation, it is possible for all of the pits to be open simultaneously, although until now, there was no reason to adjust the sequencing as a result of this change.

As previously stated, in September 1999, excavation activities were initiated in Pit 3. Although the focus of this effort was on the cover materials, there has been limited excavation into the waste materials themselves. Based on this limited excavation, it has become apparent that the waste material found so far will not provide the anticipated feed stock needed to support dryer operations (i.e., the material is drier than anticipated).

The plan, therefore, is to move up the excavation of Pit 5, so as to make it available as soon as possible so as to ensure that a suitable and reliable feed stock is available to facilitate dryer operations. The essence of this action would be to provide a feed stock to supplement the material being excavated from Pit 3, so that dryer operations can be maintained. In doing so, the timeframe for remediating Pit 3 should not be adversely impacted, although the start of excavation for Pit 1 and 2 will probably be pushed back (as will the completion time for these pits). This plan will also result in Pit 5 being excavated over a longer period of time. Overall, however, this plan will not adversely impact the overall remediation schedule.

To implement this plan, activities would be initiated as soon as possible to remove the water cover from Pit 5 by transferring it to the Clearwell. This water will then be treated through the IT Water Treatment System (WTS). With the removal of the water cover, a protective cover (e.g., material consistent with the requirements of the approved Excavation Plan) would be applied to the newly exposed Pit 5 material. As discussed in the approved Remedial Action Package, this protective cover will be used for dust control. Concurrently, a base for the excavation equipment will be established at the East End of Pit 5. In addition, other activities such as haul road construction and establishment of appropriate runoff controls would be undertaken.

To support this operation and provide heavy equipment access to the appropriate areas, surveying monuments that are located in the Pit 5 berms will be removed. These monuments were placed in the berms and dikes of Pits 3 and 5, and the Clearwell in the early 1990's to address concerns over the structural stability and integrity of the berms

and dikes. Past survey efforts (e.g., in May 1998) and inspections have shown that berm stability and integrity are not a concern. While we can review this issue of monument replacement further with the U.S. EPA and OEPA, with the removal of the water cover and the pit material itself, the plan is to not replace these monuments once they are removed.

The plan is to excavate Pit 5 from the berm on the eastern end of the pit, using conventional excavation equipment with extended reach capability, as necessary. Once excavated, the material will be transported by truck to the south (around the western end of Pit 4), utilizing the currently established haul road at the eastern end of Pit 3. This material will be transported directly to the Material Handling Building (MHB). During the period of time when Pit 5 is open for excavation, it will be generally maintained in its dewatered state, with the protective cover additionally being maintained. Please note that material requiring drying from Pit 3 will be prioritized over Pit 5 materials.

By ensuring that a consistent feed stock is available for the dryer, we are putting ourselves in a position to be able to avoid potential future bottlenecks. Specifically, by being proactive at this time, we could more easily adjust to problems in the future if wetter than expected material is encountered elsewhere.

This plan would be beneficial in other ways. For example, with the water cover removed for Pit 5, additional storage capacity will be available for stormwater in the event that discharges to the Biodentrification Surge Lagoon (BSL) are terminated. In addition, with Pit 5 no longer being a surface impoundment, there would appear to be no need for the daily Hazardous Waste Management Unit (HWMU) inspections currently being performed (i.e., to ascertain that there is sufficient freeboard available). An exception will be during periods when Pit 5 is used for contingency storm water management. Finally, removal of water cover from Pit 5 earlier should help to minimize concerns expressed in the past about berm stability.

In conclusion, the proposed plan to initiate the excavation of Pit 5 at an earlier than anticipated date will provide for additional flexibility in operations without adversely impacting blending capabilities/needs or the overall schedule, and should therefore, be implemented. The plans in place will ensure that appropriate environmental controls are established and maintained. Accordingly, it is requested that U.S. EPA and OEPA approve the early excavation of Pit 5 in the manner discussed above. The letter of request will serve to document any changes to the Excavation Plan, with no specific modifications of the Excavation Plan needed in response to this request.

Also, as documented above, it is requested that U.S. EPA and OEPA approve DOE's request to discontinue the daily HWMU surface impoundment (i.e., freeboard level) inspections of Pit 5 once it has been dewatered.

Mr. James A. Saric
Mr. Tom Schneider



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If you have any questions or comments, please contact Dave Lojek at (513) 648-3127.

Sincerely,

Johnny Reising

FEMP:Lojek

Johnny W. Reising
Fernald Remedial Action
Project Manager

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