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George V. Voinovich, Governor
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Donald R. Schregardus, Director

FILE: 6446.6

June 24, 1998

RE: DOE FEMP
CONDITIONAL APPROVAL
EXCAVATION MONITORING
FOR IAFP AND SP5

Mr. Johnny Reising
U.S. Department of Energy, Fernald Area Office
P.O. Box 538705
Cincinnati, OH 45253-8705

Dear Mr. Reising:

This letter provides Ohio Environmental Protection Agency conditional approval of the Project Specific Plan for Excavation Monitoring for the Inactive Flyash Pile and Soil Stockpile 5. It is our intent to provide approval for the specific uses of the in situ gamma spectroscopy methods as outlined in the PSP in lieu of providing approval of the following documents:

1. HPGe QAPP Addendum
2. RTRAK Applicability Study
3. Real Time Users Manual

We are taking this approach to expedite the process for approving the start of excavation and placement activities this construction year. It is our intention to review these three documents in the future when they are submitted in a final form and the schedule for approval is not on the critical path for construction.

Our approval of the RTRAK is limited to the operation at 1 mile per hour with a four-second acquisition time for 100% coverage of excavation lifts. The trigger level for WAC exceedences (to trigger HPGe delineation of the above-WAC boundary) will be 721 ppm total uranium.

Our approval of HPGe is limited to the identification of new areas of WAC exceedences and the delineation of previously known WAC exceedence areas. Our approval of the HPGe is limited to the following uses:

1. Initial screening of excavation lifts in locations where the RTRAK cannot be used. The HPGe measurements will be taken at a one meter detector height with a five minute count time. The measurements will be performed on a triangular grid using the "minimal overlap" grid spacing (Figure 4.10-1 of the Real Time Users Manual) except for the ground surface lifts in the Inactive Flyash Pile and the Interceptor Ditch which have

already been measured using the "no overlap" grid spacing. A trigger level of 400 ppm total uranium will allow detection of WAC flunkers as small as a 1.5 meter radius.

2. Confirmation and delineation of known WAC exceedences discovered by 100% coverage using either HPGe or RTRAK. Count times will be five minutes and detector height will be set at either 15 or 31 centimeters. Measurements will be taken on a two meter triangular grid and a trigger level of 928 ppm total uranium will be used to delineate the WAC flunker. Although not specifically stated in the PSP, it is Ohio EPAs expectation that the WAC exceedence area will be bounded by HPGe readings that are lower than the WAC trigger.

Although Ohio EPA is not at this time approving the supporting documents listed above, we expect that all the procedures for use, calibration, quality control, etc. will be followed. It is Ohio EPAs expectation that all WAC flunkers will be delineated to the extent that boundary is reliably determined. In general, we expect that the excavation of WAC flunkers will be bounded by HPGe measurements that are lower than WAC.

The next-to-last paragraph in Section 2.5 discusses conditions which may arise that warrant a different strategy for defining the extent of contamination. The Ohio has verbally approved of visual strategies for above-WAC excavation control in the case of brown glass bottles and colored uranium salts. If a WAC flunker is found using gamma spectroscopy, the boundary should be delineated using gamma spectroscopy. It is not acceptable to discover a WAC flunker using gamma spectroscopy and then default to a visual method to delineate the boundary.

If you have any questions, please contact Tom Ontko or me.

Sincerely,

Tom Ontko

for

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Ruth Vandergrift, ODH
Francie Barker, Tetra Tech EM Inc.
Manager, TPSS/DERR, CO
Mark Shupe, HSI- GeoTrans, Inc.

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