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RESPONSES TO ITEM B OF THE CERCLA SECTION, ITEMS A1-A7 AND ITEMS B1-B5 FOR THE RCRA SECTION OF THE FFCA

05/12/87

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LETTER

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:
5ME-14

12 MAY 1987

Mr. James A. Reafsnyder
Site Manager, Feed Materials Production Center
U.S. Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37831

Dear Mr. Reafsnyder:

The Region V Office of the U.S. Environmental Protection Agency (USEPA) has reviewed the Responses to Item B of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section, Items A1-A7 and Items B1-B5 of the Resource Conservation and Recovery Act (RCRA) Section of the Federal Facilities Compliance Agreement (FFCA) for the Feed Materials Production Center (FMPC) in Fernald, Ohio. At this juncture, we have no comments on Item B of CERCLA. This letter will encompass comments on Items B1-B5 and Items A1-A7 of the RCRA Section.

Our specific comments on Items A1-A7 of the RCRA section are as follows:

° <u>RCRA Determinations for FMPC Waste Streams</u>

- Page 12, should include the plutonium materials handled on-site.

- Page 14, narrowly focuses on uranium in the drum sampling program. Sampling programs should include thorium and other radioactive materials placed in drums and other containers on-site.

- Table 3, Hazardous Waste Determination of Stored Waste at FMPC, only mentions thorium wastes in item 61 "Partially oxidized metal with thorium." We question if all thorium wastes fall into this single category or if other thorium wastes are present on-site.

  No mention is made of technetium contaminated wastes or of any transuranic contaminated wastes even though they have been handled on the site. If other radioactive materials are present as stored wastes, then they must be noted.

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° Response to FFCA Item A.1

- Of the 67 categories of drummed wastes, 49 are awaiting a final hazardous waste determination for those characteristics described in 40 CFR Part 261, Subpart C. Until a final determination is made, these wastes must be stored in accordance with 40 CFR Part 265. If this determination indicates a waste is not considered a hazardous waste, it may be removed from the RCRA storage facility.

° Response to FFCA Item A.2

- Until a final hazardous waste determination has been completed, all waste oils must be stored in compliance with RCRA as described above.

- Table A.2-1 accounts for 62.42% of the Milled RMI Salt. It is necessary to include what accounts for the remaining 37.58%.

- Table A.2-3 failed to express units for uranium items 22 and 26.

° Response to FFCA Item A.3

- Page 3 addresses the 6.6 million pounds of uranium and the 61,700 pounds of thorium disposed of within Pit 4. It would be beneficial to determine how much of the material is soluble and how much is insoluble material. Perhaps, not all of the material needs to be treated as waste and some could possibly be recycled.

° Response to FFCA Item A.7

- Page 11 should include plans to drill additional wells off-site and to investigate possible contamination for the entire inventory of radioactive material handled at the plant.

Our specific comments on Items B1-B5 of the RCRA Section are as follows:

° Section III, page 13 indicates that groundwater flow is toward the Northeast. However, historical data indicates a shift in the direction of groundwater flow toward the east. Section III, page 17 states that groundwater flow directions are generally to the South and Southeast. However, Figure 2 on page 7 indicates groundwater flow is toward the East. This information should be clarified or as a minimum an explanation should be provided indicating the discrepancies and what steps are being taken to determine groundwater flow.

° Section IV, page 18 should consider both the glacial till and the underlying sand and gravel to be part of the uppermost aquifer as

they appear to be hydrologically interconnected.

In addition, although water level data indicates that Monitoring Well-12 maintains groundwater surface elevations in excess of 25 feet over the TP series, it is completed 60 feet below the surface and screened at the till/bedrock interface. This monitoring point is most likely under semi-confined conditions, resulting in higher water level elevations. According to Figure 2 in the proposal (page 7), MW-12 may not be representative of background groundwater quality. A new location should be considered northwest of the waste pit area.

- Section IV, page 19 lists production well SW-2 as an upgradient well for the sand and gravel aquifer or background well. We find this well to be unacceptable for background monitoring purposes. Construction of production wells (i.e., casing materials, pumping rates) is typically unacceptable for RCRA groundwater monitoring purposes. In addition, this well is not located upgradient of Waste Pit #4. A new location should be proposed for monitoring in the sand and gravel deposits. If possible, this well should be constructed in a cluster adjacent to the new upgradient, glacial till monitoring well.

- Section IV, page 23 discusses additional monitoring well installations and expanded groundwater quality analyses. Discussions of new upgradient monitoring wells should include a map indicating the position of proposed locations. Previous discussions of MW-12 and SW-2 should be deleted in the text.

Appendix (Sampling and Analysis Plan)

- Section 3.2.2, page 7 should include a description of the evacuation procedures for the TP series wells.

- Section 3.3.3, page 8 describes the cleaning procedure for the portable submergible pump and associated tubing used to purge wells that do not have a dedicated pump. It should be noted that immediately following a cleansing with a non-phosphate detergent, a rinse with 0.1N hydrochloric or nitric acid should be conducted.

- Section 3.2.5, page 11 states that "since organics are of concern with the FMPC detection monitoring efforts, the following procedure is practiced: clean with a non-phosphate detergent (e.g. ALCONOX); and rinse with tap water, distilled water, acetone, and pesticide quality hexane." The word "organics" should be changed to "inorganics."

- Table 2, page 13 does not list preservatives for Total Organic Carbon (TOC) or Total Organic Halogens (TOX). Samples for TOC analysis should be acidified with hydrochloric acid to a pH less than 2.

Samples for TOX analysis should be preserved with 1.0 milliliter of 1.1 M sodium sulfite. If these procedures are not being followed they should be corrected.

- Table 2, page 14 lists the preservative for phenols as HNO_3. The proper preservative for phenols is H_2SO_4. Further, it should be specified that Nitrate/ Nitrite samples are acidified to a pH less than 2.

Thank you for the opportunity to review these documents. If you have any questions concerning our comments, please contact Ms. Amy Blumberg of my staff at 312/886-7342.

Sincerely yours,

William D. Franz

William D. Franz, Chief
Environmental Review Branch
Planning and Management Division