



Department of Energy  
Ohio Field Office  
Fernald Environmental Management Project  
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MAR 17 2004

Mr. Gene Jablonowski, Remedial Project Manager  
United States Environmental Protection Agency  
Region V, SR-6J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

DOE-0193-04

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5<sup>th</sup> Street  
Dayton, Ohio 45402-2911

Dear Mr. Jablonowski and Mr. Schneider:

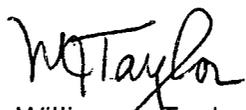
**RESPONSE TO CONDITIONAL APPROVAL OF SILO 3 REMEDIAL DESIGN/REMEDIAL ACTION PACKAGE, REVISION 2**

Reference: Letter, T. Schneider to W. J. Taylor, "Re: Silo 3 Remedial Design/Remedial Action Package, Revision 2," dated February 24, 2004.

The referenced letter provided the Ohio Environmental Protection Agency (OEPA) contingent approval of Remedial Design/Remedial Action (RD/RA) Package for the Silo 3 Project. Enclosed are two page changes providing the specified information, which satisfy the conditions of approval.

If you have any questions regarding this information, please contact John Sattler at (513) 648-3145.

Sincerely,

  
William J. Taylor  
Director

FCP:Sattler

Enclosure: As Stated

MAR 17 2004

Mr. James A. Saric  
Mr. Tom Schneider

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DOE-0193-04

cc w/enclosure:

G. Brown, OH/FCP  
J. Sattler, OH/FCP  
J. Saric, USEPA-V, SR-6J  
T. Schneider, OEPA-Dayton (three copies of enclosure)  
M. Cullerton, Tetra Tech  
M. Shupe, HSI GeoTrans  
R. Vandegrift, ODH  
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:

K. Johnson, OH/FCP  
S. Beckman, Fluor Fernald, Inc./MS52-4  
D. Carr, Fluor Fernald, Inc./MS1  
R. Corradi, Fluor Fernald, Inc./MS52-4  
T. Hagen, Fluor Fernald, Inc./MS1  
M. Jewett, Fluor Fernald, Inc./MS52-5  
D. Nixon, Fluor Fernald, Inc./MS65-2  
D. Thiel, Fluor Fernald, Inc./MS52-2  
T. Walsh, Fluor Fernald, Inc./MS52-3  
ECDC, Fluor Fernald, Inc./MS52-7

Contingency Plan (NCP), a Proposed Plan (PP) and subsequent Record of Decision (ROD) Amendment was prepared to modify the Silo 3 remedy. The ROD Amendment for Operable Unit 4, Silo 3 Remedial Action was approved September 24, 2003 and modified the treatment portion of the Silo 3 remedy to:

- Treatment to the extent practical, by addition of a chemical stabilization reagent to reduce metals mobility and a binding reagent to reduce dispersability
- If above treatment step is deemed un-implementable, a contingency backup would be implemented to double package the waste.

The remedy for Silo 3 continues to include the following components, which were not reevaluated, and remain as documented in the original OU4 ROD, and subsequent ESD for Silo 3:

- Maintain transportation risk less than  $1 \times 10^{-6}$
- Off-site disposal of Silo 3 material at the Nevada Test Site or a permitted commercial facility
- Removal of Silo 3 structure, remediation facilities, and associated systems and components; disposal of contaminated debris in accordance with the Operable unit 3 ROD.
- Cleanup of soil in Silo 3 area to meet final remediation levels in Operable Unit 5 ROD
- Appropriate treatment and disposal of all secondary wastes at the Nevada Test Site or an appropriately licensed off-site facility.
- Collection of perched water encountered during remedial activities for treatment at OU5 water treatment facilities.
- Continued access controls and maintenance and monitoring of the stored waste inventories.
- Institutional controls of the OU4 area such as deed and land-use restrictions.

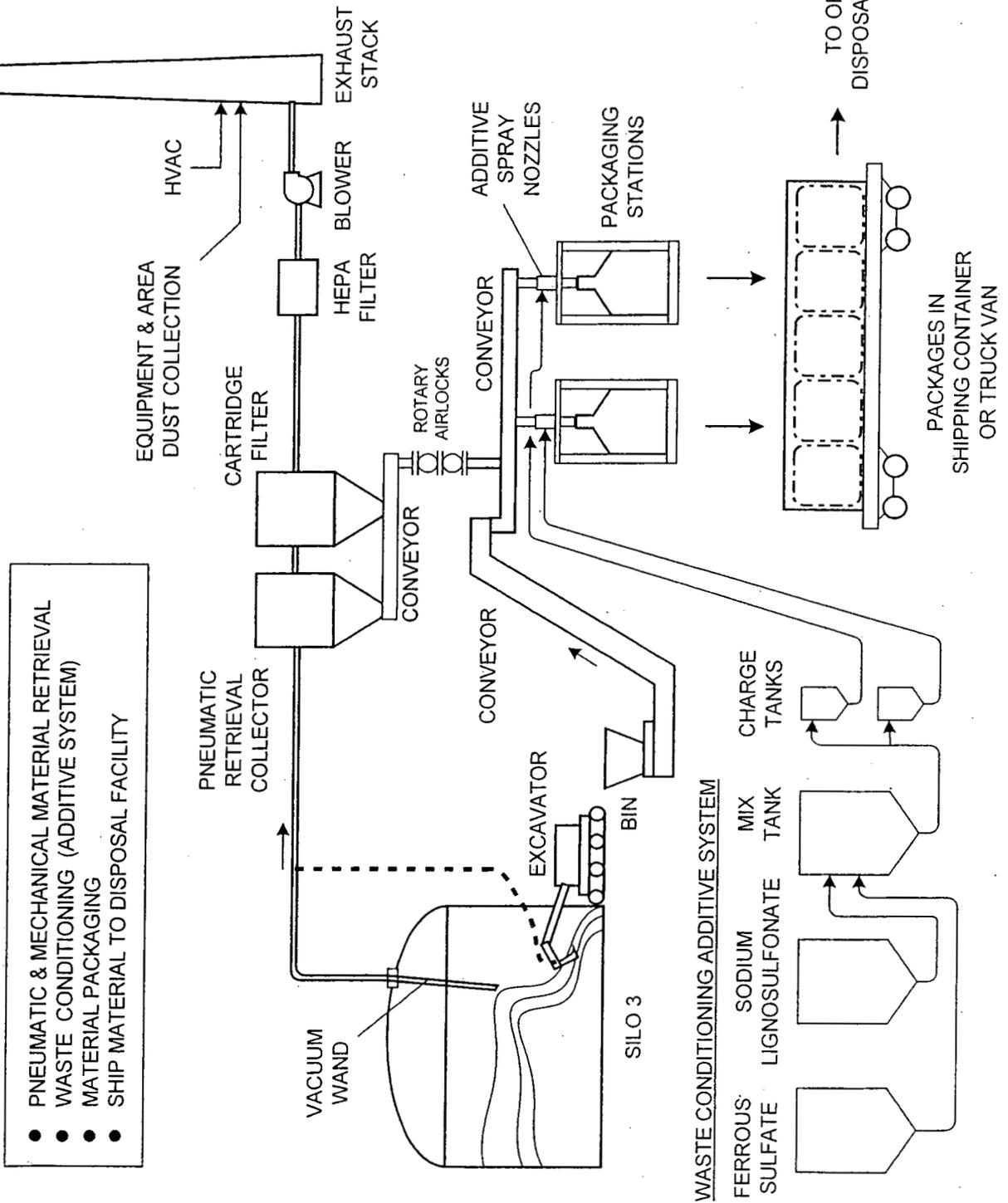
### 3.2 Technical Basis

The path forward used as a basis for the design reflected in this RD/RA Package is:

- Pneumatic (vacuum) retrieval of Silo 3 material via silo man ways on the silo dome;
- Cutting an opening in the silo sidewall for at-grade access by mechanical equipment;
- Mechanical retrieval of Silo 3 material using remotely controlled mechanical excavation equipment (in combination with continued pneumatic retrieval as required);
- Application of a solution of lignosulfonate, water, and ferrous sulfate to the Silo 3 material as it enters the package to reduce leachability and dispersability;
- Packaging of Silo 3 material for transportation to an off-site disposal facility; and
- Transportation to the selected disposal facility(s) in accordance with DOT regulations and transportation risk criterion specified by the ROD.

The proposed design is depicted in Figure 1.

FIGURE 1  
SILO 3 PROJECT - PROCESS DIAGRAM



- PNEUMATIC & MECHANICAL MATERIAL RETRIEVAL
- WASTE CONDITIONING (ADDITIVE SYSTEM)
- MATERIAL PACKAGING
- SHIP MATERIAL TO DISPOSAL FACILITY

WASTE CONDITIONING ADDITIVE SYSTEM

