

Addendum 1 -- 2452
To
IMPACTED MATERIALS PLACEMENT PLAN
ON-SITE DISPOSAL FACILITY

Specialized Placement Plan
for Bagged Impacted Material

20100-PL-007

Revision 0

January 1999

United States Department of Energy

Fernald Environmental Management Project
Fernald, Ohio

Prepared by

GeoSyntec Consultants
1100 Lake Hearn Drive, NE, Suite 200
Atlanta, Georgia 30342

Under

Fluor Daniel Fernald
Subcontract 95PS005028

INFORMATION
ONLY

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REVISION SUMMARY

-- 2452

<u>Revision</u>	<u>Dated</u>	<u>Description of Revision</u>
Rev. 0	1/19/98	Initial issuance of Revision 0 <i>Impacted Material Placement Plan, On-Site Disposal Facility</i> (20100-PL-007)
Rev. 0	7/7/98	PCN 1: add Revision Summary page and revise physical waste acceptance criteria for debris (page 4-1) to reflect that transite panels will not be size reduced before disposal in the On-Site Disposal Facility
Rev. 0	2/17/99	Addendum 1: Issuance of Revision 0 Specialized Placement Plan for Bagged Impacted Material to discuss placement of bagged material into the On-Site Disposal Facility

Addendum 1 - OSDF Impacted Material Placement Plan
Rev. 0, Date: January 20, 1999

Specialized Placement Plan for Bagged Impacted Material

According to Section 8, Article 8.6.1 of the Impacted Material Placement (IMP) Plan, Revision 0, dated January 1998, a specialized placement plan is to be developed for "materials either nominally larger than the physical criteria for the OSDF..." or "not reasonably anticipated by currently identified categories...". The following specialized placement plan provides the placement and compaction requirements for the bagged impacted materials which will not fit in the trenching system described for Category 5 impacted material placement as discussed in Section 8, Article 8.6.3 of the IMP plan.

Placement

Bagged impacted materials, including thorium contaminated soils and debris, requiring placement in the OSDF is limited. The primary criterion for the placement of bagged impacted materials is that the materials are placed in a manner protective of the health and safety of OSDF personnel and the public. A secondary criterion is to minimize differential settlement of the OSDF cover system.

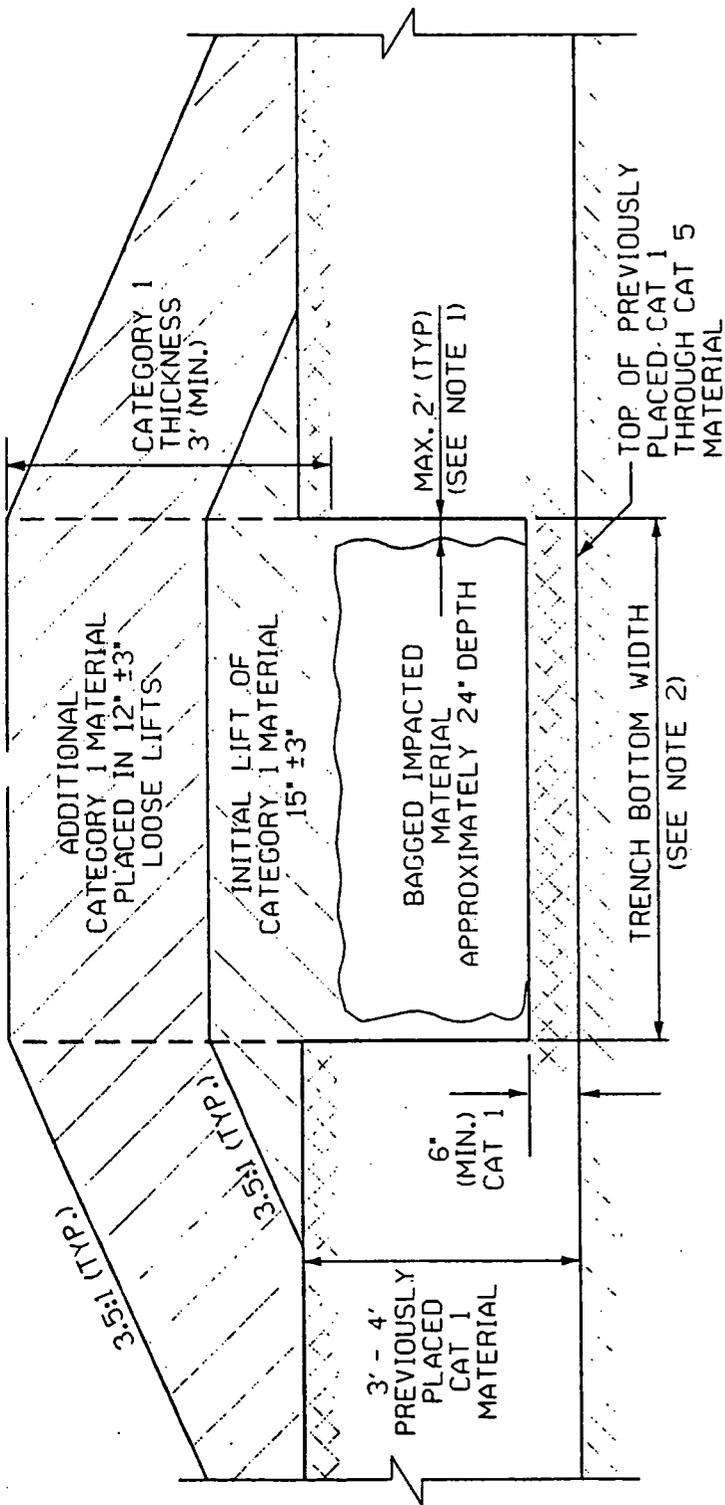
Prior to commencement of placement activities, the contractor shall identify an appropriate grid(s) for the placement of the bagged impacted material. The placement grid(s) shall be approved by the Construction Manager. The approved grid(s) shall have a 3 ft (0.9m) to 4 ft (1.2m) depth of previously placed Category 1 material and shall comply with the following placement procedures.

A trench for bagged material placement in the approved grid(s) location shall be excavated, as shown in attached Figure 1. The bottom of the trench shall have minimum of 6 in (150mm) of Category 1 material above a previously placed Category 1 through 5 material. The trench shall not be excavated in previously placed protective, contouring, or select impacted material layers. The width of the trench shall be approximately the width of the

transporting container for the bagged impacted material plus 2 ft (0.6m). The width of the trench is anticipated to be approximately 8 ft (2.4m) to 12 ft (3.6m). Category 1 impacted material excavated from the trench shall be stored at least 6 ft (1.8m) away from the trench opening. The length of the trench shall vary depending on the quantity of bagged impacted material to be placed in the OSDF. The depth of bagged impacted material in the trench shall be approximately 24 in (600mm). The maximum distance between the bag(s) placed in the trench and trench walls and between the bags shall be 2 ft (0.6m). The placement of bagged impacted material shall be performed in accordance with Fernald Environmental Management Project (FEMP) radiological safety procedures, as well as the contractor's Safe Work Plan, to minimize worker exposure.

Compaction

Compaction shall not be performed directly on the bagged impacted material. Contact with the bagged material shall be minimized by personnel and equipment. After placement of the bagged impacted material in the trench, void spaces between the bags and between the bags and trench walls shall be filled with Category 1 material. The Category 1 material filled in void spaces shall not be compacted. An initial lift of 15 in (376mm) \pm 3 in (76mm) thick Category 1 material shall be placed over the bagged impacted material. The top of the initial lift shall be compacted with a minimum of four passes of a portable flat-plate, self-propelled double drum roller compactor, or a smooth drum vibratory roller and shall not require compaction testing. Additional 12 in (300mm) \pm 3 in (76mm) thick Category 1 lifts shall be placed above the initial lift. Total thickness of Category 1 material placed above the bagged impacted material, including the initial lift, shall be a minimum 3 ft (0.9m) as shown on attached Figure 1. The Category 1 lifts above the initial lift shall be compacted by a CAT 826 compactor, CAT 815 compactor, or equivalent, to meet at least 90 percent of the standard Proctor dry density. The compaction shall be tested in accordance with the IMP Plan.



TYPICAL SECTION
(NOT TO SCALE)

BAGGED IMPACTED MATERIAL PLACEMENT

- NOTE 1. MAXIMUM DISTANCE BETWEEN THE BAG(S) OF IMPACTED MATERIAL AND BETWEEN TRENCH WALLS AND THE BAG(S) SHALL BE TWO FEET.
- NOTE 2. THE WIDTH OF THE TRENCH SHALL BE APPROXIMATELY THE WIDTH OF THE TRANSPORTING CONTAINER PLUS 2 FEET. (WIDTH ANTICIPATED TO BE APPROXIMATELY 8 TO 12 FEET)

ON SITE DISPOSAL FACILITY
ADDENDUM 1 - IMPACTED MATERIAL
PLACEMENT PLAN

FIGURE 1 - TYPICAL SECTION
BAGGED IMPACTED MATERIAL PLACEMENT

DATE 1/20/98

REV. 0

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Post-it Fax Note 7671		Date	# of pages 8
To Johnny Reising	From Tom Schneider		
Co./Dept.	Co.		
Phone #	Phone # 513-285-6466		
Fax # 513 648 3076	Fax #		

TO: WAZ
WAK



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911
(513) 285-6357
FAX (513) 295-6249

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-----rga V. Voinovich
Governor

February 17, 1999

RE: DOE FEMP
APPROVAL: SPECIAL
PLACEMENT PLAN FOR
THORIUM WASTE

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

Dear Mr. Reising:

Ohio Environmental Protection Agency has reviewed DOE's February 1, 1999 submittal "Special Placement Plan for Thorium Wastes" based upon this review Ohio EPA approves the plan with the limitation that it only be used for bagged Category 1 thorium contaminated material.

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

Sincerely,

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

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

Q:\FEMP\OU2\11\PP\THPL WPD

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INTEROFFICE MEMORANDUM

To: ECDC,MS52-7

Date: July 29, 1999

Location: MS 52-7

Reference: Addendum #1 for Impacted
Materials Placement Plan
(IMPP) 20100-PL-007

From: Charles Van Arsdale

FD Fernald #: None

Location: Fernald

Client: DOE DE-AC24-92OR21972

Extension: 648-5116

Subject: IMPP ADDENDUM #1

c: File Record Subject - 20100-PL-007
Project Number - 20100

Please distribute attached IMPP Addendum #1 to all those on distribution of the original Impacted Material Placement Plan, Rev. 0

Addendum #1 to IMPP