



Department of Energy  
Office of Legacy Management

February 20, 2008

Mr. Timothy Fischer  
U.S. Environmental Protection Agency  
Region V-SRF-6J  
77 W. Jackson Blvd.  
Chicago, IL 60604-3590

Mr. Thomas A. Schneider  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402

Dear Mr. Fischer and Mr. Schneider:

**SUBJECT: Transmittal of the December 19, 2007 Inspection Checklist for On-Site Disposal Facility**

The purpose of this letter is to transmit the completed forms for the December 19, 2007 inspection of the On-Site Disposal Facility (OSDF). Photographs of the disposal facility and the surrounding area were taken to accompany the inspection and are included with this report. The inspection was conducted with participation from Tetra Tech, Civil and Environmental Consultants (CEC), and the S.M. Stoller Corporation.

The December 2007 OSDF inspection is the first conducted pursuant to the revised inspection approach that was proposed as part of the draft 2008 Legacy Management and Institutional Controls Plan (LMICP). A revised approach was originally presented in the draft LMICP that was submitted in October 2007. Subsequent discussions with OEPA resulted in a revised inspection proposal that was submitted on December 19, 2007. The proposal expanded the use of field forms and enhanced the tracking of follow-up actions. Where applicable, comments received on this proposal were incorporated into the attached forms. Additional comments will be addressed in the revised LMICP.

The December 2007 inspection was a north/south transect. Findings were recorded on the Fernald Preserve OSDF Walk-down Inspection Form and were documented on a map of the OSDF. Both the form and the map are attached to this report. Several items identified require continued observation to determine if further actions are warranted. These findings were entered into a GPS system and were photographed. The photographs are attached to this report.

|   |                          |   |
|---|--------------------------|---|
| 2597 B 3/4 Road, Grand Junction, CO 81503                     | <input type="checkbox"/> | 3610 Collins Ferry Road, P.O. Box 880, Morgantown, WV 26507 |
| 626 Cochran's Mill Road, P.O. Box 10940, Pittsburgh, PA 15236 | <input type="checkbox"/> | 1000 Independence Ave., S.W., Washington, DC 20585          |
| 11025 Dover St., Suite 1000, Westminster, CO 80021            | <input type="checkbox"/> | 10995 Hamilton-Cleves Highway, Harrison, OH 45030           |
| 955 Mound Road, Miamisburg, OH 45342                          | <input type="checkbox"/> | 232 Energy Way, N. Las Vegas, NV 89030                      |

REPLY TO: Harrison Office

Mr. Timothy Fischer  
Mr. Thomas Schneider  
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As stated above, a key component of the revised inspection approach is the documentation of follow-up activities. Findings from site inspections, OSDF inspections, and observations from Fernald Preserve personnel during day to day operations will be entered into the Fernald Preserve Maintenance and Repair Action Items form. This document was recently submitted as an attachment to the December 2007 Site Inspection Report. It is anticipated that this form will be updated and submitted on a regular basis, in advance of the monthly agency conference call.

The next OSDF Cell Cap inspection is scheduled for March 2008. If you have any questions or require additional information, please call me at (513) 648-3148.

Sincerely,



Jane Powell  
Fernald Site Manager  
DOE-LM-20.1

Enclosure

cc w/enclosure:

M. Cullerton, Tetra Tech.  
M. Murphy, USEPA-V, A-18J  
J. Reising, DOE-EM  
T. Schneider, OEPA (three copies of enclosure)  
M. Shupe, HSI GeoTrans  
Project Record File FER030.1(A) (thru W. Sumner)  
Administrative Records (thru W. Sumner)

cc w/o enclosure: (electronic)

J. Homer, Stoller  
F. Johnston, Stoller  
L. McHenry, Stoller  
T. Pauling, DOE-LM-20.1

# On-Site Disposal Facility Inspection Report

## December 2007



6319D-5444



*Stoller*  
Legacy Management Team





**East Face Cell 1**



**West Face Cell 1**



**North Face Cell 1**



**North Drainage (looking west)**

6319D 5433

6319D 5434



**East Face Cell 2**



**West Face Cell 2**



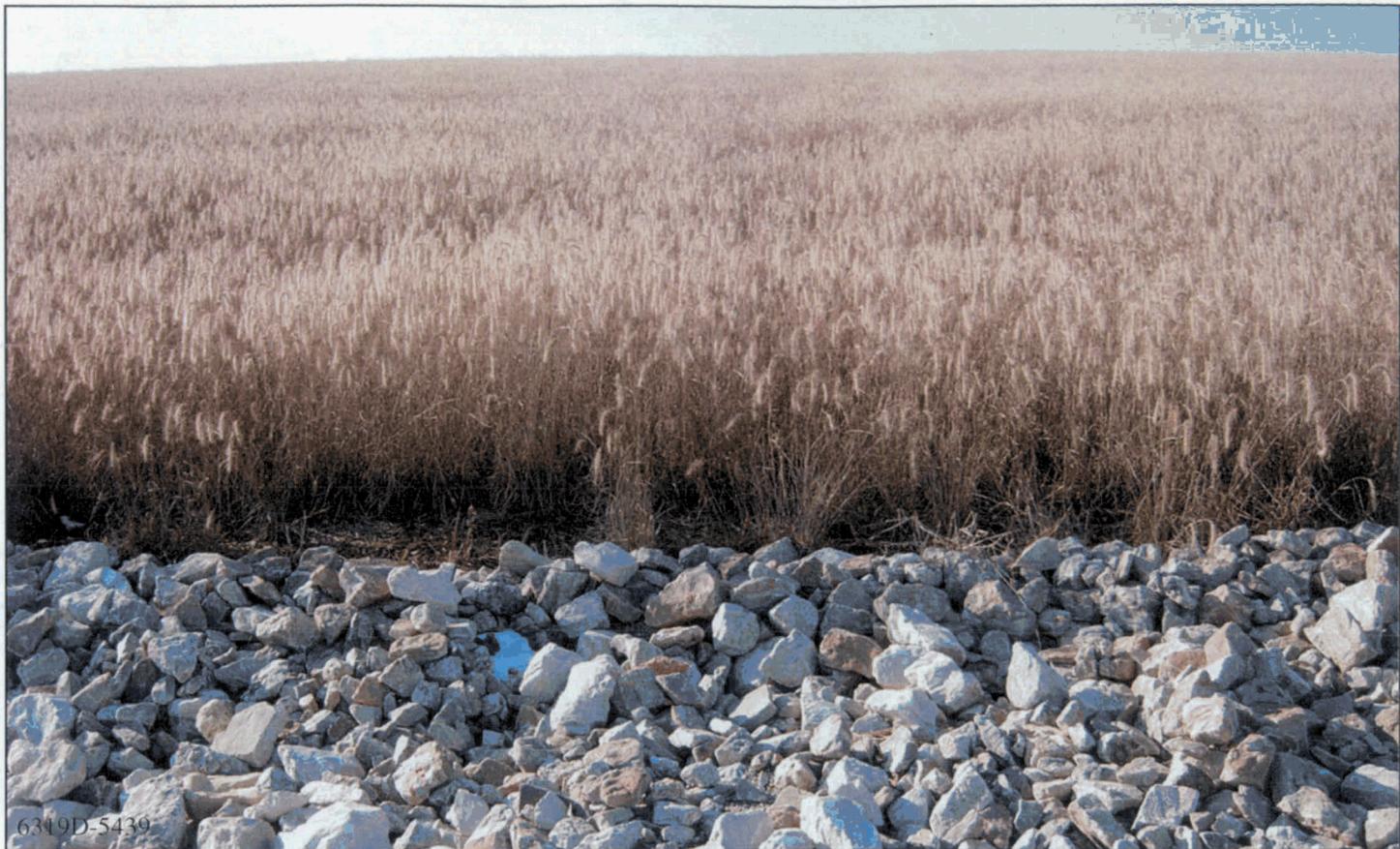
6319D-5438

**East Face Cell 3**



6319D-5457

**West Face Cell 3**



6319D-5439

**East Face Cell 4**



6319D-5455

**West Face Cell 4**



**East Face Cell 5**



**West Face Cell 5**



6319D-5442

**East Face Cell 6**



6319D-5453

**West Face Cell 6**



**East Face Cell 7**



**West Face Cell 7**



**East Face Cell 8**



**West Face Cell 8**



**South Face Cell 8**



**South Drainage (looking west)**



**East Drainage Cell 7 (looking south)**



**East Drainage Cell 4 (looking south)**



6319D-5436

**East Drainage Cell 1 (looking south)**



6319D-5452

**West Inner Drainage Cell 7 (looking south)**



6319D-5456

**West Inner Drainage Cell 4 (looking south)**



6319D-5460

**West Inner Drainage Cell 1 (looking south)**



6319D-5461

**West Outer Drainage Cell 1 (looking south)**



6319D-5450

**West Outer Drainage Cell 8 (looking north)**



**West Outer Drainage Cell 8 (looking south)**

# OSDF December 2007 Inspection

## Continued Observation Photos



6319-D5462.JPG



6319-D5463.JPG



6319-D5464.JPG



6319-D5465.JPG

# OSDF December 2007 Inspection

## Continued Observation Photos



6319-D5466.JPG



6319-D5467.JPG



6319-D5468.JPG



6319-D5469.JPG

FERNALD PRESERVE OSDF WALKDOWN INSPECTION FORM

Date: 19-Dec-07

Inspectors Stoller, Tetra Tech, CEC

Cell/Area: All

Sheet No.: 1 of 1

| No.  | Cell/Area | Location (use map whenever possible) | GPS? | Type of Finding (see definitions back page) |            |            |              |          | Description | Photo?                           | Followup   |           |                 |                  |
|------|-----------|--------------------------------------|------|---|------------|------------|--------------|----------|-------------|----------------------------------|------------|-----------|-----------------|------------------|
|      |           |                                      |      | Erosion                                     | Settlement | Vegetation | Biointrusion | Drainage |             |                                  | Other      | Corrected | Maint. Required | Cont. Observatio |
| MV-1 | 5         | western edge of vegetation           | No   |   |            | X          |              |          |             | Groundhog hole                   | No         | X         |                 |                  |
| MV-2 | 6         | north edge on east 10:1 slope        | No   |   |            | X          |              |          |             | Groundhog hole                   | No         | X         |                 |                  |
| KP-1 | 1         | west 6:1 slope                       | No   |   |            |            |              | X        |             | Buried rock too large to pick up | No         | X         |                 |                  |
| GL-1 | 1         | west 6:1 slope                       | No   |   | X          |            |              |          |             | Canada thistle                   | No         | X         |                 |                  |
| GL-2 | 5         | west 6:1 slope                       | No   |   | X          |            |              |          |             | Canada thistle                   | No         | X         |                 |                  |
| GL-3 | 8         | west 6:1 slope                       | No   | X   |            |            |              |          |             | Rill                             | No         | X         |                 |                  |
| JW-1 | 5         | west 6:1 slope                       | No   |   | X          |            |              |          |             | Thistle                          | No         | X         |                 |                  |
| JW-2 | 5/6       | west 6:1 slope                       | No   |   | X          |            |              |          |             | Thistle                          | No         | X         |                 |                  |
| JW-3 | 8         | east top of 6:1 slope                | No   | X   |            |            |              |          |             | Erosion under matting            | No         | X         |                 |                  |
| JW-4 | 8         | east top of 6:1 slope                | No   | X   |            |            |              |          |             | Erosion under matting            | No         | X         |                 |                  |
| JW-5 | 7         | east top of 6:1 slope                | No   |   |            |            |              | X        |             | Groundhog hole                   | No         | X         |                 |                  |
| HB-1 | 5/6       | west 20:1, 10:1 slope                | Yes  | X   |            |            |              |          |             | Sparse vegetation                | 6319-D5469 |           |                 | X                |

| No.  | Cell/Area | Location (use map whenever possible) | GPS? | Type of Finding (see definitions back page) |            |            |              |          | Description  | Photo?     | Followup |           |                 |
|------|-----------|--------------------------------------|------|---|------------|------------|--------------|----------|--|------------|----------|-----------|-----------------|
|      |           |                                      |      | Erosion                                     | Settlement | Vegetation | BioIntrusion | Drainage |  |            | Other    | Corrected | Maint. Required |
| HB-2 | 8         | south 6:1 slope                      | Yes  |   | X          |            |              |          | Sparse vegetation  | 6319-D5467 |          |           | X               |
| HB-3 | 7/8       | east 10:1 slope                      | Yes  | X   |            |            |              |          | Sparse vegetation  | 6319-D5464 |          |           | X               |
| HB-4 | 7         | east 10:1 slope                      | No   |   |            | X          |              |          | Multiple animal burrows                                    | No         |          | X         |                 |
| HB-5 | 1         | whole north slope (not on map)       | No   |   | X          |            |              |          | Sparse vegetation - reseeded in Oct. 2008                  | No         |          |           | X               |
| JH-1 | 5/6       | west slopes                          | Yes  |   | X          |            |              |          | Sparse vegetation  | 6319-D5469 |          |           | X               |
| JH-2 | 8         | south 6:1 slope                      | Yes  |   | X          |            |              |          | Sparse vegetation  | 6319-D5467 |          |           | X               |
| JH-3 | 8         | south 6:1 slope                      | Yes  | X   |            |            |              |          | Depression   | 6319-D5462 |          |           | X               |
| JH-4 | 7         | east 6:1 slope                       | No   |   |            | X          |              |          | Animal burrow  | No         |          | X         |                 |
| JH-5 | 2         | east 6:1 slope                       | No   |   | X          |            |              |          | Large patch of Canada thistle                              | No         |          | X         |                 |
| JH-6 | 1         | northeast 6:1 slope                  | Yes  | X   |            |            |              |          | Depression on corner                                       | 6319-D5463 |          |           | X               |
| 1    | 7         | west 6:1 slope                       | Yes  | X   |            |            |              |          | Two foot diameter area 6 inches deep localized settlement. | 6319-D5465 |          | X         |                 |
| 2    | 8         | south 6:1 slope                      | Yes  |   | X          |            |              |          | Sparse vegetation  | 6319-D5468 |          |           | X               |
| 3    | 7         | east 6:1 slope                       | No   |   |            | X          |              |          | Small groundhog hole                                       | No         |          | X         |                 |
| 4    | 4         | east 6:1 slope                       | No   |   | X          |            |              |          | Thistle  | No         |          | X         |                 |
| 5    | 4         | east 6:1 slope                       | No   |   |            |            | X            |          | Groundhog hole   | No         |          |           | X               |

| No. | Cell/Area       | Location (use map whenever possible)      | GPS? | Type of Finding (see definitions back page) |            |            |              |          | Description  | Photo? | Followup |           |                 |
|-----|-----------------|---|------|---|------------|------------|--------------|----------|--|--------|----------|-----------|-----------------|
|     |                 |   |      | Erosion                                     | Settlement | Vegetation | BioIntrusion | Drainage |  |        | Other    | Corrected | Maint. Required |
| 6   | East Perimeter  | drainage channel                          | No   |   |            | X          |              | X        | Woody vegetation east side of drainage channel - 3-foot red leafed tree  | No     | X        |           |                 |
| 7   | East Perimeter  | along fenceline                           | No   | X   |            |            |              |          | Erosion around one fence post concrete base  | No     | X        |           |                 |
| 8   | East Perimeter  | along fenceline                           | No   | X   |            |            |              |          | Erosion around approx. 12 fence post concrete bases. Bases sitting on a ridge between road ditch and swale.                              | No     | X        |           |                 |
| 9   | East Perimeter  | along fenceline                           | No   | X   |            |            |              |          | Erosion around one fence post concrete base  | No     | X        |           |                 |
| 10  | East Perimeter  | along fenceline                           | No   | X   |            |            |              |          | Erosion around one fence post concrete base  | No     | X        |           |                 |
| 11  | East Perimeter  | inside fence, east of drainage channel    | No   |   | X          |            |              |          | Thistle  | No     | X        |           |                 |
| 12  | South Perimeter | Three discharge pipes @ south end of OSDF | No   |   |            | X          |              |          | Sediment measured at pipe inlet: west-3 inches, middle-4 inches, east-1 inch. Good - no action necessary                                 | No     | X        |           |                 |
| 13  | West Perimeter  | drainage channel outlet                   | No   | X   |            |            |              |          | Minor erosion at end of rip rap. No action necessary - keep monitoring.  | No     | X        |           |                 |
| 14  | West Perimeter  | inside fence, east of drainage channel    | No   |   |            |            | X            |          | Silt fence can now be removed  | No     | X        |           |                 |
| 15  | West Perimeter  | inside fence along drainage channel       | No   | X   |            |            |              |          | Erosion - greater than one foot  | No     | X        |           |                 |
| 16  | West Perimeter  | inside fence, west of Valve House 8       | No   |   |            |            | X            |          | Rutting  | No     | X        |           |                 |
| 17  | West Perimeter  | west of monitoring well                   | No   |   |            |            | X            |          | Debris (steel straps)  | No     | X        |           |                 |
| 18  | West Perimeter  | Gravity Inlet Structure (GIS) outlet pipe | No   | X   |            |            |              |          | Erosion greater than 1 foot occurring under and west of perimeter fence. Erosion is occurring near fence post.                           | No     | X        |           |                 |
| 19  | West Perimeter  | Gravity Inlet Structure (GIS) outlet pipe | No   | X   |            |            |              |          | Erosion occurring one foot in depth at fence post.   | No     | X        |           |                 |
| 20  | West Perimeter  | Gravity Inlet Structure (GIS) outlet pipe | No   |   | X          |            | X            |          | Woody vegetation over Reinforced Concrete Pipe (RCP) needs killed. It is currently trimmed at ground level; deep roots could damage RCP. | No     | X        |           |                 |

| No. | Cell/Area      | Location (use map whenever possible)           | GPS? | Type of Finding (see definitions back page) |            |            |              |          | Description | Photo? | Followup |           |                 |                  |
|-----|----------------|--|------|---|------------|------------|--------------|----------|-------------|--------|----------|-----------|-----------------|------------------|
|     |                |  |      | Erosion                                     | Settlement | Vegetation | Biointrusion | Drainage |             |        | Other    | Corrected | Maint. Required | Cont. Observatio |
| 21  | West Perimeter | Downspout at northwest corner of Valve House 2 | No   |   |            |            |              |          |             |        |          |           | X               |                  |
| 22  | 7              | west 6:1 slope                                 | Yes  | X   |            |            |              |          |             |        |          |           | X               | X                |

Damaged Downspout

Localized area of depression due to small erosion rills. Additional soil is not required, however, the area should be overseeded to prevent additional loss of topsoil.

No

6319-D5466

Printing (see  
instructions back  
page)

10/1/00

10/1/00



**Legend**

- Building
- Fernald Preserve Boundary
- Fence
- Disposal Cell Outline
- Road-Paved
- Road-gravel



**Fernald Preserve  
OSDF (On-Site Disposal Facility)**

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**December 2007 Inspection Findings**