Department of Energy
Office of Legacy Management

November 29, 2007

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 September 2007 Fernald Site Inspection Checklist**

The purpose of this letter is to transmit the completed checklist for the September 2007 Fernald site quarterly inspection. The September 2007 inspection was the third formal site inspection conducted at Fernald as directed by the Comprehensive Legacy Management and Institutional Controls Plan (LMICP 2006). The inspection began on Tuesday, September 11 and was completed on Thursday, September 13. It was conducted with participation from S. M. Stoller, the Ohio Environmental Protection Agency (OEPA), and Tetra Tech. Note that the On-Site Disposal Facility (OSDF) cap has a separate inspection and reporting process.

A formal response to comments document addressing OEPA comments from the June inspection is not being provided. The comments received from OEPA were considered in conducting this inspection and the preparation of this report given the collaborative nature of these inspections. Any future comments received will also be considered when conducting and documenting future inspections. OEPA's willingness to participate in these inspections is appreciated.

The primary purpose of the inspection is to document the effectiveness of the Institutional Controls defined by the LMICP. No signs of unauthorized use were observed. Institutional controls appeared to be functioning as intended. Access points, gates, fencing, signs, and other infrastructure seemed to be secure and in good condition, with only minor repairs needed in a few locations. Roads, parking lots, and walkways were generally in good condition. Restored areas are progressing as planned. There were very few areas documented as having little vegetation. This is due in part to the drought the region has experienced this past spring and summer.

A revised approach was used to document findings from the September 2007 inspection. As a supplement to the site inspection checklist form, personnel were provided a map and a punch list for recording specific findings in the field. These findings have been compiled into one list and map that will be used by restoration personnel to document resolution. Findings are grouped into several main categories, including the presence of noxious weeds, erosion rills, and areas of debris and trash. Future inspections will include a closeout meeting for participants to discuss any concerns immediately after the field survey.

Some of the items listed above have already been addressed. Invasive species and noxious weed control has been on going throughout the year. A licensed herbicide applicator was on site daily from May through mid July. A majority of the areas treated were spot sprayed with a 2-4, D broad leaf herbicide (Triplet). Prairie areas on the west side of Paddys Run, the South Field, east of the Borrow Area and the OSDF cell 1 cap were sprayed with Plateau herbicide using a tractor with a boom sprayer. Plateau is a herbicide that is protective of most native grasses and forbs, so it is recommended for noxious weed control in prairie areas. Phragmites was hand swiped with a glyphosate-based herbicide that is safe for use near water (Rodeo).

During the month of August, areas with large concentrations of thistle were cut down with a mower or hand held trimmer. In September, the licensed herbicide applicator returned to site to conduct further treatments. Repeat applications were applied to many of the areas, particularly those areas along the perimeter of the property. However, a different herbicide, Milestone, was used. Milestone is a broadleaf herbicide that was recommended by the Hamilton County Soil and Water Conservation District for control of Canada thistle. Literature suggests that fall application of Milestone provides better residual control than 2, 4-D. Thistle patches that were still present in the prairie areas treated earlier with Plateau were spot sprayed with the Milestone as well. Patches of Reed Canary grass and Johnson grass were sprayed with Rodeo.

Erosion areas are addressed through Stoller's Engineering Design and Construction group as part of restored area maintenance activities. The Waste Pits Area was recently repaired through regrading of eroded channels and installation of erosion control matting. In 2008, similar efforts are planned for the Former Production Area, the Southern Waste Units, and the Borrow Area.

The identification of debris is addressed on a regular basis. A flagging system was developed for the site earlier in the year. Inspection participants use yellow pin flags ("debris flags") to identify locations of debris in the field. The site radiological control technician uses these flags to locate, identify, analyze, document, and subsequently dispose of debris.

A second part of the quarterly site inspection includes interviews of local residents and businesses, and a document review. The interviews are documented on the attached interview forms. In general, the local residents interviewed are pleased with the progress at the Fernald site and have no concerns. Continued communication with the contracted site manager and DOE is desired. Interviews with the local sheriff and fire departments indicated that all is going as expected at the site.

Interviews were also conducted with the Contracted Site Manager, the Aquifer Restoration Manager, and the Information Management Manager on site. Their interview forms are also included. A few items of concern were discussed and it was noted that those items are being addressed.

Pursuant to the LMICP, the frequency of future inspections is under review. The Draft October 2007 Revised LMICP sets forth a revised approach, where the frequency of formal site inspections will be reduced to annually instead of quarterly. Site walk downs will continue to take place quarterly. Specific portions of the site will be intensively investigated during a given quarter. This approach provides several benefits. First, it allows for a more thorough inspection process. Second, it optimizes the inspection to account for field conditions. For instance, in December, the inspection will focus on perimeter areas and wooded corridors. The timing of this inspection will take advantage of the more open conditions found during the winter.

As always, if you have any questions or require any additional information, please call me at (513) 648-3148.

Sincerely,

Jane Powell

Jane Powell,
Fernald Site Manager
DOE-LM-20.1

Enclosure

cc w/ enclosure:
M. Cullerton, Tetra Tech.
F. Johnston, Stoller
M. Murphy, USEPA-V, A-18J
T. Pauling, LM20
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:
J. Homer, Stoller
L. McHenry, Stoller

Fernald Site Area Post-Closure Inspection Checklist

Date of Inspection: Septmeber 11 - 13, 2007 Weather Conditions: Sunny/PtSunny/Cloudy/PtCloudy/Rain

Time of Inspection: 9:00 AM to 4:00 PM Temperature: Range from 66 to 93^{0}F

Inspection By: SM Stoller, OEPA, Tetra Tech, Geosyntec

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
1. Disturbance and Use of Fernald Site				
1A. Inspect access points to ensure that site restrictions and contact information are clearly posted.	A			LMICP
1B. Ensure that any perimeter gates/fences/barriers are in proper working condition.	A	Only very minor corrections are necessary.		"
1C. Visually inspect interior and perimeter areas to ensure that no unauthorized use or disturbance is occurring.	A			"
1D. Note any change in adjacent off-property land use.	A			"
1E. Visually inspect site wetlands to ensure no dredge/fill or other type of disturbance is occurring.	A	Wetlands are very dry due to drought.		Clean Water Act
1F. Visually inspect restored areas to ensure that prohibited noxious weeds are not present.	U	Noxious weeds are present in various areas of the site. Although thistle is much more under control, it still needs to be addressed with considerable effort. Phragmites, honeysuckle, garlic mustard, Johnson grass and Reed canary grass are just a few other species that need to be addressed.	A second application of herbicide to thistle was completed in September. Some of the reed canary grass and Johnson grass was also treated. Honeysuckle is are being treated with herbicide in October and November.	OAC
1G. Visually monitor Paddys Run to ensure disturbance of Sloan's crayfish habitat is not occurring.	A			
1H. Visually monitor along Paddys Run corridor to ensure disturbance of Indiana Bat habitat is not occurring.	A			Endangered Species Act
1I. Visually inspect site for excessive erosion.	U	Erosion is occurring in the southern waste units and in various locations around the production area and borrow area. The waste pits area erosion was repaired in September/October.	The other major erosion areas will be evaluated by Stoller Engineering. Designs for correction will be developed and a subcontractor will be hired to implement the designs.	LMICP
1J. Annually verify that all Deed Restrictions and other Real Estate use restrictions are in place and are applicable.	N/A			LMICP
2. Prevent Human and Environmental Exposure to Residual Contaminants				
2A. Visually inspect infrastructure supporting Aquifer Remedy	A			LMICP

***A** = Satisfactory ***U** = Unsatisfactory (comments and identification on site map required)

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Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
to ensure no unauthorized access or disturbance is occurring.				
2B. Visually inspect perimeter areas to verify that prohibited activities (e.g., digging, soil removal, swimming) are not occurring on Fernald site.	A			"
2C. Visually inspect uncertified areas to ensure no digging, disturbance or tampering with signs is occurring.	A			"
2D. Visually inspect access control grating on the Main Drainage Corridor 60-inch culvert.	A			LMICP
2E. Annually (following harvest) inspect soil cover over outfall line to ensure sufficient soil cover (30 inches) is present.	A			LMICP
3. Information Management				
3A. Verify that site information is available to the public and other stakeholders as planned.	A	A great deal of information about the Fernald Preserve is available to the public in a variety of ways such as publications, the Reading Room, website, bi-weekly emails, community meetings, fact sheets, a community telephone number, etc.		LMICP
3B. Verify that information on site inspections and maintenance is readily available.	A	Information about the Fernald Preserve is available in the Reading Room, by request, at public meetings, on scheduled tours, speaking engagements, etc.		LMICP
3C. Verify that requests for site information are being addressed and fulfilled as planned.	A	Any requests or simple questions are handled as soon as possible with a goal of a 48-hour turnaround. Requests and inquiries are documented.		LMICP
3D. Verify that as-built drawings and information on OSDF contents and design are readily available.	A			LMICP
4. Site Interviews				
4A. Contracted Land Manager – Identify any unusual occurrences or problems at Fernald site.	U	There was an incident involving hunters on adjacent property. See attached interview record.		LMICP
4B. Site Information/Data Manager – Ensure site data is	A	See attached interview record.		"

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Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
available and information is being managed as planned.				
4C. Aquifer Restoration Manager – Verify that Aquifer remediation is progressing as planned and identify any unusual occurrences	A	See attached interview record.		"
4D. Other staff as appropriate – Identify any problems or site issues.	N/A			"
4E. Hamilton County/Butler County Sheriff – Identify any concerns or issues.	A	Interviewer left a message with Butler County but received no response prior to submitting interviews.		"
4F. Ross/Crosby Township Police/Fire Departments – Identify any concerns or issues.	A	Morgan Township Fire Department provided an interview. See attached interview record.		"
4G. Ohio "Call Before You Dig" Program Office – Ensure Fernald site information is properly noted to prevent unauthorized excavation on the site.	N/A			"
4H. Stakeholder Groups (e.g., FRESH, Post-Closure Coalition) – Identify any concerns or problems.	A	Crosby Township Trustee. See attached interview record. Hamilton County Environmental Services Education Manager. See attached interview record.		"
4I. Adjacent landowners.	N/A			

***A** = Satisfactory ***U** = Unsatisfactory (comments and identification on site map required)

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Susan Marsh	**Time:** 4:36 PM	**Date:** 10-22-07
Title: Information Management Manager	**Organization:** Stoller	
Street Address: 10995 Hamilton-Cleves Hwy **City, State, Zip:** Harrison, OH 45030	**Telephone No:** 513-648-7544 **Fax No:** **E-Mail Address:** susan.marsh@lm.doe.gov	
Type: ___ Telephone __x__ Other ___ Visit - Location of Visit:		
Contact Made By (Name): Lisa McHenry		
Title: Restoration Ecologist	**Organization:** Stoller	

Summary Of Conversation

Analytical and associated data is collected as planned in the SeePro database.

User data stored on network servers has been available as needed and continues to be backed up appropriately.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Frank Johnston	**Time: 7:56 AM**	**Date: 7-30-07**
Title: Site Manager	**Organization:** Stoller	
Street Address: 10995 Hamilton-Cleves Hwy **City, State, Zip:** Harrison, OH 45030	**Telephone No:** 513-648-5294 **Fax No:** **E-Mail Address:** frank.johnston@lm.doe.gov	
Type: ___ Telephone _x_ Other ___ Visit - Location of Visit:		
Contact Made By (Name): Lisa McHenry		
Title: Restoration Ecologist	**Organization:** Stoller	

Summary Of Conversation

We had an incident involving a hunter whereby shot from his weapon rained down on Fernald property and actually struck one of our team members. Also, we have noted a couple of tree stands adjacent to Fernald property. We have taken steps to ensure the safety of our team members during the fall/winter hunting seasons.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Bill Hertel	**Time:** 2:12 PM	**Date:** 7-20-07
Title: Aquifer Restoration Manager	**Organization:** Stoller	
Street Address: 10995 Hamilton-Cleves Hwy. **City, State, Zip:** Harrison, OH 45030	**Telephone No:** 513-648-3894 **Fax No:** **E-Mail Address:** bill.hertel@lm.doe.gov	
Type: ___ Telephone __x__ Other ___ Visit - Location of Visit:		
Contact Made By (Name): Lisa McHenry		
Title: Restoration Ecologist	**Organization:** Stoller	

Summary Of Conversation

In general aquifer remediation is progressing as planned. Excluding the downtime for the Aquifer Rebound Exercise, the groundwater extraction rate for the quarter averaged over 5,000 gallons per minute, which is above the OMMP design specified groundwater extraction rate of 4775 gallons per minute.

From June 17-July 23 most of the Aquifer Restoration Extraction Wells were shut down for the first annual aquifer water level rebound exercise. The exercise did not yield the expected benefits, most likely because of lower than anticipated aquifer water levels - due to the dry weather and resultant lower than normal aquifer recharge this year. We will try again next year provided precipitation and recharge are up to acceptable levels next spring/summer.

Also, we went to a new operating schedule at CAWWT in late July where CAWWT is run Monday-Friday, then shut down from the end of the shift on Friday until Monday morning. The well field pumps continuously, 7 days a week - generally at the rates specified in the OMMP. The need for treatment to meet the Site's discharge limits continues to decline as the uranium concentration in the pumped groundwater declines. The necessary treatment rates are being applied during the week to ensure the site continues to meet the uranium discharge limits.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Carla Rack	**Time: 4 p.m.**	**Date: 10-24-07**

Title: Community Relations	**Organization: Butler County sheriff**
Street Address: 705 Hanover St. **City, State, Zip: Hamilton, OH 45011**	**Telephone No: 513-785-1031** **Fax No:** **E-Mail Address:**

Type: x Telephone ___ Other ___ Visit - Location of Visit:

Contact Made By (Name): Sue Walpole

Title: Community Relations	**Organization: S.M. Stoller**

Summary Of Conversation

Could not make contact but left a message.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Lt. Ron Stenger	**Time: 9 a.m.**	**Date: 10-24-07**

Title: Fireperson	**Organization: Morgan Township Fire Department**
Street Address: Ross Station – 2565 Cincinnati-Brookville Rd. **City, State, Zip: Ross, OH 45061**	**Telephone No: 738-2023** **Fax No:** **E-Mail Address:**

Type: x Telephone ___ Other ___ Visit - Location of Visit:

Contact Made By (Name): Sue Walpole

Title: Community Relations	**Organization: S.M. Stoller**

Summary Of Conversation

The officer was familiar with the site and came to the site for the manlift fire. He was complimentary of the good assistance from the folks at Fernald during that event. He is from the area and has watched the transformation of the site and felt it would be an asset to the community.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Sue Magness	**Time: 3 p.m.**	**Date: 10-24-07**

Title: Ham. County Environmental Services Education Manager	**Organization: Hamilton County**
Street Address: **City, State, Zip:**	**Telephone No:** **Fax No:** **E-Mail Address:**

Type: _ Telephone ___ Other x__ Visit - Location of Visit: Crosby Township Community Center

Contact Made By (Name): Sue Walpole

Title: Community Relations	**Organization: S.M. Stoller**

Summary Of Conversation

Sue was impressed at the progress of the site and after a brief tour had several suggestions for unique education programs that we might consider once the Visitors Center opens.

FERNALD PRESERVE INTERVIEW RECORD

Name of Individual Contacted: Chris Dole	**Time: 2 p.m.**	**Date: Oct. 24 2007**

Title: Township Trustees	**Organization: Crosby township**
Street Address: **City, State, Zip:**	**Telephone No:** **Fax No:** **E-Mail Address:**

Type: __ Telephone ___ Other _x_ Visit – Saw him at the Crosby Township Community Center

Contact Made By (Name): Sue Walpole

Title: Community Relations	**Organization: S.M. Stoller**

Summary Of Conversation

Chris thought everything was going well. He has been very involved in the proposed drag strip public hearings and made mention of the fact that it will still be some time before the conflict is resolved.