Department of Energy
Ohio Field Office
Fernald Environmental Management Project
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

APR 16 2003

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

DOE-0331-03

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

Dear Mr. Saric and Mr. Schneider:

ON-SITE DISPOSAL FACILITY, CELL 1 CAP

On October 18, 2002, the first inspection of the On-Site Disposal Facility (OSDF) Cell 1 Cap was conducted. Representatives from the Department of Energy (DOE), Ohio Environmental Protection Agency (OEPA) and Fluor Fernald, Inc. participated in the inspection. The purpose of the first inspection was to both assess the condition of the Cell 1 Cap and to test the effectiveness of the procedure and checklist for conducting the inspections in the future. It was agreed that with some minor modification, the checklist would continue to be used during future inspections. A blank version of the checklist, as revised after the first inspection, is enclosed for your information.

The January 2003 Comprehensive Stewardship Plan calls for quarterly inspections of the OSDF Cap. Based on the planned quarterly inspection schedule, the next inspection will be conducted on April 24, 2003. The required inspections for the remainder of 2003 will be scheduled during the months of July and October. In years to come, quarterly inspections will be completed in January, April, July, and October of each year. As new cells are capped, those inspections will occur in conjunction with the Cell 1 Cap inspection schedule as listed above.

During the first inspection, a number of corrective actions were identified for the Cell 1 Cap. Those corrective actions are identified in the enclosed checklist completed during the first inspection. To date, all corrective actions with the exception of the application of herbicide and the required reseeding have been completed. The contract for the herbicide

application was awarded in the last week and application of the herbicide will occur prior to the April inspection. The required reseeding will also occur in the next two weeks and germination should be apparent by the April inspection, weather permitting.

DOE requests to be informed if the date for the April inspection is acceptable. If there are any questions on the enclosed documents, please contact Jay Jalovec at (513) 648-3122 or Robert Janke at (513) 648-3124.

Sincerely,

Johnny Reising

FCP:Jalovec

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosures: As Stated

cc w/enclosures:
R. J. Janke, OH/FCP
A. Murphy, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosures)
G. Jablonowski, USEPA-V, SR-6J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosures:
R. Greenberg, EM-31/CLOV
N. Hallein, EM-31/CLOV
J. Reising, OH/FCP
D. Carr, Fluor Fernald, Inc./MS1
J. Chiou, Fluor Fernald, Inc./MS64
T. Hagen, Fluor Feranld, Inc./MS1
U. Kumthekar, Fluor Fernald, Inc./MS64
D. Powell, Fluor Fernald, Inc./MS64
E. Woods, Fluor Fernald, Inc./MS65-2
ECDC, Fluor Fernald, Inc./MS52-7

OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection:_____ Weather Conditions: Sunny/PtSunny/Cloudy/PtCloudy/Rain/Snow

Time of Inspection:_____ Temperature: _____ ^{0}F Wind Speed (Miles per hour) and Direction:_____

Inspection By:_____ Transect Direction** _____ Other observations_____

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
1. Entrance Road/Monitoring Access Road				
1A. Verify entrance gate, lock and signage are intact and in good working order.				PCC&IP 20100-PL-010 Rev. 1 July 97
1B. Verify that access gates are locked to prevent unauthorized entry.				"
1C. Visually observe condition of access road for signs of erosion, ruts, standing water, proper drainage and excess vegetation.				"
1D. Verify that access road surfacing, cross slope, reflectors, and signage are intact and in good condition.				"
2. Chain Link Fence and Signage				
2A. Walk length of fence and ensure fence, posts, etc. are intact and in good condition. Ensure that gates are closed/locked to prevent unauthorized entry.				PCC&IP & OSDF Tech Spec #02831
2B. Verify that the proper signage is intact and in good condition at the following locations: Restricted Access; Certified Area; and Restored Area. (Some signs not installed at this time).				"
2C. Check for vegetation growing over fences, barricades, signs and any noxious vegetation per State of Ohio Regulations (attached) and invasive plants growing on or around OSDF perimeter.				"
3. Surface Water Management				
3A. Check integrity of drainage channels around OSDF for erosion or debris restricting water flow (see attached map). Build up of debris/sedimentation in drainage ditch is not to exceed 6 inches.				OSDF Tech. Spec. #02270; PCC&IP
3B. Visually check the integrity of Rip-Rap in drainage channels for signs of deterioration or removal of rock.				See above & OSDF Tech. Spec. #02271
3C. Visually check for the presence of woody vegetation growing in drainage channels and in Rip-Rap				"
3D. Visually check the integrity of run-on and run-off control features including: Ditch checks, Gravity Inlet structures, and Culverts.				See above & Construction Drawing # 90X-6000-G-00073

*A = Satisfactory *U = Unsatisfactory (comments required)

** Transect Direction should alternate each inspection (North to South & East to West)

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OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection:_____

Time of Inspection:_____

Inspection By:_____

Weather Conditions: Sunny/PtSunny/Cloudy/PtCloudy/Rain/Snow

Temperature: _____ ^{0}F Wind Speed (Miles per hour) and Direction:_____

Transect Direction** _____ Other observations_____

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
4. (A) Final Cover				
4A. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually inspect for the following items:**				PCC&IP
4A1. Inspect erosion rills/channels. Flag any observable rills/channels greater than 3 inches wide and 6 inches deep or excessive erosion.				"
4A2. Any observable depressions, settlement/subsidence, slumping or desiccation cracks. Flag any observable depressions, slumps, settlement/subsidence or dessication cracks.				"
4A3. Any ponding or standing water. Flag any standing water.				"
4A4. Evidence of burrowing animals or other bio-intrusion. Flag any observable evidence of bio-intrusion.				"
4A5. Evidence of vehicle traffic on the OSDF cap.				"
4B. Walk toe of slope and visually inspect for the following:				PCC&IP & Phase III Drwgs #90X-6000-G-00302 & 90X-6000-G-00310
4B1. Evidence of settlement/subsidence, erosion, and seepage. Flag any observable evidence of settlement/subsidence, erosion, or seepage.				"
4B2. A 20-ft corridor at the toe for the presence of woody vegetation, siltation, and/or biointrusion. Flag any woody vegetation, siltation, and/or biointrusion.				"
4B3. Condition of rip-rap. Flag any observable abnormalities.				"
4C. Inspect toe at final cover for evidence of freezing or siltation. Flag any observable abnormalities.				"

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** Transect Direction should alternate each inspection (North to South & East to West)

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OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection:_____ Weather Conditions: Sunny/PtSunny/Cloudy/PtCloudy/Rain/Snow

Time of Inspection:_____ Temperature: _____ ^{0}F Wind Speed (Miles per hour) and Direction:_____

Inspection By:_____ Transect Direction** _____ Other observations_____

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
4. (B) Final Cover — Vegetation				
4D. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually check vegetative cover for the following:				OSDF Tech. Spec. #02930
4D1. General health of grass cover and signs of stressed or dead grass should be noted.				"
4D2. Adequate grass coverage/density with no bares spots greater than 3-ft in diameter. Flag any bare spots greater than 3-ft in diameter. Any areas with questionable vegetative coverage will be sampled for percent cover and type of vegetation using meter-square quadrats.				"
4D3. Inspect the cover for the presence of woody vegetation (i.e., trees or shrubs) or noxious/invasive plants growing. Flag any woody and/or noxious/invasive vegetation for removal/herbicide.				"
5. Cover Monitoring System				
5A. Visually inspect the integrity of the cover monitoring system: check Junction boxes, manholes, pressure transducer risers, soil water status nest headers, and settlement plates of the remote monitoring system for evidence of damage (see attached map). Check that lids and caps on enclosures are intact and in good working order.				OSDF Drwg. # 90X-5500-E-00581 & 90X-5500-G-00577
5B. Visually inspect monitoring system manholes and junction boxes for the presence of animals, insects, rodents or misc. biota. Note the presence or evidence of any biota.				"
5C. Visually inspect manholes and junction boxes and their immediate vicinity for the presence of standing water. Flag all standing water.				"
6. Groundwater Monitoring Wells				
6A. Visually inspect all groundwater wells for damage and integrity of well infrastructure.				PPC&IP
6A1. Groundwater Monitoring Wells				"
6A2. Horizontal Monitoring Wells				"

*A = Satisfactory *U = Unsatisfactory (comments required)

OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection:_____
Time of Inspection:_____
Inspection By:_____

Weather Conditions: Sunny/PtSunny/Cloudy/PtCloudy/Rain/Snow
Temperature: _____^{0}F Wind Speed (Miles per hour) and Direction:_____
Transect Direction** _____ Other observations_____

Inspection Component	Condition A* or U*	Comments	Corrective Action(s) Proposed	Reference Source
7. Miscellaneous				
7A. Visually inspect the integrity of survey benchmarks. Flag/note any abnormalities.				PPC&IP
7B. Visually inspect the integrity of the perched water interceptor trench (once installed). Note any abnormalities.				"
7C. Visually observe/inspect the corridor 50-ft outside of OSDF for signs/evidence of land use changes, settlement/subsidence, erosion, standing water, encroachment, livestock grazing or noxious vegetation. Note any changes/abnormalities.				"
7D. Visually inspect all infrastructure for any act of vandalism.				"
7E. List any other observations not noted in the categories above.				"

***A** = Satisfactory ***U** = Unsatisfactory (comments required)

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OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: 10/18/02 Weather Conditions: Sunny

Time of Inspection: 9:30 a.m. Temperature: 60°F Wind Speed (Miles per hour) and Direction: 5-10 from SW

Inspection By: DOE;OEPA;FLUOR Transect Direction:** East to West Other observations: Partial Inspection - Cell 1

Inspection Component	Condition A* or U*	Comments	Maintenance Action(s) Proposed/Scheduled	Reference Source
1. Entrance Road/Monitoring Access Road				
1A. Verify entrance gate, lock and signage are intact and in good working order.	A	None	None Required	PCC&IP 20100-PL-010 Rev. 1 July 97
1B. Verify that access gates are locked to prevent unauthorized entry.	A	None	None Required	"
1C. Visually observe condition of access road for signs of erosion, ruts, standing water, proper drainage and excess vegetation.	A	None	None Required	"
1D. Verify that access road surfacing, cross slope, reflectors, and signage are intact and in good condition.	A	None	None Required	"
2. Chain Link Fence and Signage				
2A. Walk length of fence and ensure fence, posts, etc. are intact and in good condition. Ensure that gates are closed/locked to prevent unauthorized entry.	A	None	None Required	PCC&IP & OSDF Tech Spec #02831
2B. Verify that the proper signage is intact and in good condition at the following locations: Restricted Access; Certified Area; and Restored Area. (Some signs not installed at this time).	A	None	None Required	"
2C. Check for vegetation growing over fences, barricades, signs and any noxious vegetation per State of Ohio Regulations (attached) and invasive plants growing on or around OSDF perimeter.	U	Phragmites (Invasive Plant) in drainage ditch North of Cell 1.	Herbicide application to identified plants only -	"
3. Surface Water Management				
3A. Check integrity of drainage channels around OSDF for erosion or debris restricting water flow (see attached map). Build up of debris/sedimentation in drainage ditch is not to exceed 6 inches.	U	Siltation blocking flow in drainage ditch on East and West sides of Cell1.	Remove siltation with backhoe -	OSDF Tech. Spec. #02270; PCC&IP
3B. Visually check the integrity of Rip-Rap in drainage channels for signs of deterioration or removal of rock.	A	None	None Required	See above & OSDF Tech. Spec. #02271
3C. Visually check for the presence of woody vegetation growing in drainage channels and in Rip-Rap	U	Woody vegetation growing in ditch on all sides of Cell 1.	Herbicide application to woody seedlings only –	"
3D. Visually check the integrity of run-on and run-off control features including: Ditch checks, Gravity Inlet structures, and Culverts.	U	A. Culvert East of Cell 1 is partially blocked with sediment. B. Flow from culvert on North side of Cell 1.	A. Remove sediment from culvert East of Cell 1 – B. Cut off flow from culvert North of Cell 1 -	See above & Construction Drawing # 90X-6000-G-00073

*A = Satisfactory *U = Unsatisfactory (comments required) ** Transect Direction should alternate each inspection (North to South & East to West)

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OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: 10/18/02
Time of Inspection: 9:30 a.m.
Inspection By: DOE;OEPA;FLUOR
Weather Conditions: Sunny
Temperature: 60°F
Transect Direction:** East to West
Wind Speed (Miles per hour) and Direction: 5-10 from SW
Other observations: Partial Inspection - Cell 1

Inspection Component	Condition A* or U*	Comments	Maintenance Action(s) Proposed/Scheduled	Reference Source
4. (A) Final Cover				
4A. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually inspect for the following items:**				PCC&IP
4A1. Inspect erosion rills/channels. Flag any observable rills/channels greater than 3 inches wide and 6 inches deep or excessive erosion.	U	Erosion rills are forming in multiple locations as marked on Cell 1 Cap.	Fill erosion rills, reseed and apply new matting -	"
4A2. Any observable depressions, settlement/subsidence, slumping or desiccation cracks. Flag any observable depressions, slumps, settlement/subsidence or dessication cracks.	U	Slumping is evident on East face of Cell 1 in location of former silt fence.	Regrade or fill slumping while minimizing disturbance to surrounding area -	"
4A3. Any ponding or standing water. Flag any standing water.	A	None	None Required	"
4A4. Evidence of burrowing animals or other bio-intrusion. Flag any observable evidence of bio-intrusion.	A	None	None Required	"
4A5. Evidence of vehicle traffic on the OSDF cap.	A	None	None Required	"
4B. Walk toe of slope and visually inspect for the following:				PCC&IP & Phase III Drwgs #90X-6000-G-00302 & 90X-6000-G-00310
4B1. Evidence of settlement/subsidence, erosion, and seepage. Flag any observable evidence of settlement/subsidence, erosion, or seepage.	A	Minor siltation at toe of each of the monitoring corridors on Cell 1 due to lack of vegetation.	Continue to monitor after reseeding – No action required.	"
4B2. A 20-ft corridor at the toe for the presence of woody vegetation, siltation, and/or biointrusion. Flag any woody vegetation, siltation, and/or biointrusion.	U	Woody plants growing in rocks at toe in NE corner of Cell 1.	Herbicide identified woody vegetation only at toe -	"
4B3. Condition of rip-rap. Flag any observable abnormalities.	A	None	None Required	"
4C. Inspect toe at final cover for evidence of freezing or siltation. Flag any observable abnormalities.	A	None	None Required	"

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** Transect Direction should alternate each inspection (North to South & East to West)

OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: 10/18/02 Weather Conditions: Sunny

Time of Inspection: 9:30 a.m. Temperature: 60°F Wind Speed (Miles per hour) and Direction: 5-10 from SW

Inspection By: DOE;OEPA;FLUOR Transect Direction:** East to West Other observations: Partial Inspection - Cell 1

Inspection Component	Condition A* or U*	Comments	Maintenance Action(s) Proposed/Scheduled	Reference Source
4. (D) Final Cover — Vegetation				
4D. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually check vegetative cover for the following:**				OSDF Tech. Spec. #02930
4D1. General health of grass cover and signs of stressed or dead grass should be noted.	U	Cover crop did not establish in monitoring corridors and on top of Cell 1.	Reseed cover crop in areas noted -	"
4D2. Adequate grass coverage/density with no bares spots greater than 3-ft in diameter. Flag any bare spots greater than 3-ft in diameter. Any areas with questionable vegetative coverage will be sampled for percent cover and type of vegetation using meter-square quadrats.	U	Bare spots evident in several locations (e.g., NE corner of Cell 1) as marked on Cell 1 Cap.	Reseed bare spots with full seed mix per referenced seeding specification -	"
4D3. Inspect the cover for the presence of woody vegetation (i.e., trees or shrubs) or noxious/invasive plants growing. Flag any woody and/or noxious/invasive vegetation for removal/herbicide.	A	None	None Required	"
5. Cover Monitoring System				
5A. Visually inspect the integrity of the cover monitoring system: check Junction boxes, manholes, pressure transducer risers, soil water status nest headers, and settlement plates of the remote monitoring system for evidence of damage (see attached map). Check that lids and caps on enclosures are intact and in good working order.	U	No lid present on Manhole on East face of Cell 1 Cap.	Replace manhole lid -	OSDF Drwg. # 90X-5500-E-00581 & 90X-5500-G-00577
5B. Visually inspect monitoring system manholes and junction boxes for the presence of animals, insects, rodents or misc. biota. Note the presence or evidence of any biota.	U	Rodent nest present in PT-3.	Remove rodent nest from PT-3 -	"
5C. Visually inspect manholes and junction boxes and their immediate vicinity for the presence of standing water. Flag all standing water.	A	None	None Required	"
6. Groundwater Monitoring Wells				
6A. Visually inspect all groundwater wells for damage and integrity of well infrastructure.	A	None	None Required	PPC&IP
6A1. Groundwater Monitoring Wells	A	None	None Required	"
6A2. Horizontal Monitoring Wells	A	None	None Required	"

*A = Satisfactory *U = Unsatisfactory (comments required) ** Transect Direction should alternate each inspection (North to South & East to West)

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OSDF Cell 1 Post Closure Inspection Checklist

Date of Inspection: 10/18/02 Weather Conditions: Sunny

Time of Inspection: 9:30 a.m. Temperature: 60°F Wind Speed (Miles per hour) and Direction: 5-10 from SW

Inspection By: DOE;OEPA;FLUOR Transect Direction:** East to West Other observations: Partial Inspection - Cell 1

Inspection Component	Condition A* or U*	Comments	Maintenance Action(s) Proposed/Scheduled	Reference Source
7. Miscellaneous				
7A. Visually inspect the integrity of survey benchmarks. Flag/note any abnormalities.	A	None	None Required	PPC&IP
7B. Visually inspect the integrity of the perched water interceptor trench (once installed). Note any abnormalities.	A	None	None Required	"
7C. Visually observe/inspect the corridor 50-ft outside of OSDF for signs/evidence of land use changes, settlement/subsidence, erosion, standing water, encroachment, livestock grazing or noxious vegetation. Note any changes/abnormalities.	A	None	None Required	"
7D. Visually inspect all infrastructure for any act of vandalism.	A	None	None Required	"
7E. List any other observations not noted in the categories above.	A	Entire area of Cell 1 Cap was not covered in this inspection. Additional inspection will be carried out to identify any erosion rills, bare spots not captured in this inspection.	Any additional repairs will be flagged on Cell 1 Cap.	"

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OSDF Cell 1 Corrective Action(s) Required

Date of Inspection: 10/18/02
Time of Inspection: 9:30 a.m.
Inspection By: DOE, OEPA, FLUOR

INSPECTION COMPONENT	CORRECTIVE ACTION(S)	SCHEDULED COMPLETION
1. Entrance Road/Monitoring Access Road		
2. Chain Link Fence and Signage		
2C. Check for vegetation growing over fences, barricades, signs and any noxious vegetation per State of Ohio Regulations (attached) and invasive plants growing on or around OSDF perimeter.	Herbicide application to identified plants only -	
3. Surface Water Management		
3A. Check integrity of drainage channels around OSDF for erosion or debris restricting water flow (see attached map). Build up of debris/sedimentation in drainage ditch is not to exceed 6 inches.	Remove siltation with backhoe -	
3C. Visually check for the presence of woody vegetation growing in drainage channels and in Rip-Rap	Herbicide application to woody seedlings only –	
3D. Visually check the integrity of run-on and run-off control features including: Ditch checks, Gravity Inlet structures, and Culverts.	A. Remove sediment from culvert East of Cell 1 – B. Cut off flow from culvert North of Cell 1 -	
4. (A) Final Cover		
4A. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually inspect for the following items:**		
4A1. Inspect erosion rills/channels. Flag any observable rills/channels greater than 3 inches wide and 6 inches deep or excessive erosion.	Fill erosion rills, reseed and apply new matting -	
4A2. Any observable depressions, settlement/subsidence, slumping or desiccation cracks. Flag any observable depressions, slumps, settlement/subsidence or dessication cracks.	Regrade or fill slumping while minimizing disturbance to surrounding area -	
4B. Walk toe of slope and visually inspect for the following:		

INSPECTION COMPONENT	CORRECTIVE ACTION(S)	SCHEDULED COMPLETION
4B1. Evidence of settlement/subsidence, erosion, and seepage. Flag any observable evidence of settlement/subsidence, erosion, or seepage.	Continue to monitor after reseeding – No action required.	
4B2. A 20-ft corridor at the toe for the presence of woody vegetation, siltation, and/or biointrusion. Flag any woody vegetation, siltation, and/or biointrusion.	Herbicide identified woody vegetation only at toe -	
4D. Walk cover and side slopes in 25-ft (+/- 5-ft) transects and visually check vegetative cover for the following:**		
4D1. General health of grass cover and signs of stressed or dead grass should be noted.	Reseed cover crop in areas noted -	
4D2. Adequate grass coverage/density with no bares spots greater than 3-ft in diameter. Flag any bare spots greater than 3-ft in diameter. Any areas with questionable vegetative coverage will be sampled for percent cover and type of vegetation using meter-square quadrats.	Reseed bare spots with full seed mix per referenced seeding specification -	
5. Cover Monitoring System		
5A. Visually inspect the integrity of the cover monitoring system: check Junction boxes, manholes, pressure transducer risers, soil water status nest headers, and settlement plates of the remote monitoring system for evidence of damage (see attached map). Check that lids and caps on enclosures are intact and in good working order.	Replace manhole lid -	
5B. Visually inspect monitoring system manholes and junction boxes for the presence of animals, insects, rodents or misc. biota. Note the presence or evidence of any biota.	Remove rodent nest from PT-3 -	
6. Groundwater Monitoring Wells		
7. Miscellaneous		
7E. List any other observations not noted in the categories above.	Any additional repairs will be flagged on Cell 1 Cap.	

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