



State of Ohio Environmental Protection Agency

4252

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6404

Bob Taft, Governor
Maureen O'Connor, Lt. Governor
Christopher Jones, Director

April 29, 2002

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

Re: COMMENTS - Draft Test Plan - Accelerated Waste Retrieval Project

Dear Mr. Reising:

Ohio EPA has reviewed DOE's submittal, "Draft Test Plan for the Fernald Accelerated Waste Retrieval Project" received on April 5, 2002. Attached are our comments on the document.

If you have any questions, please contact me at (937) 285-6466.

Sincerely,

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

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Mark Shupe, HSI GeoTrans
Mary Wojceichowski, Tetra Tech EM Inc.
Ruth Vandergriff, ODH

FILE: _____
2002 APR 30 A 10:09
FERNALD
LOG C-1131

**OHIO EPA COMMENTS ON
TEST PLAN FOR THE FERNALD ACCELERATED
WASTE RETRIEVAL PROJECT
APRIL, 2002**

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 2 Pg #: 6 of 70 Line #: na Code: C
Original Comment #:
Comment: The text mentions a 20" minimum submergence over the suction inlet for full flow. What are the consequences if the submergence is not maintained? Less flow?, increased erosion?, increased maintenance?
Response:
Action:

2. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.2 Pg #:6 of 70 Line #: na Code: C
Original Comment #:
Comment: Will the material to be removed in the mock exercise be compacted to resemble the actual silo material? It is imperative to assure the segregate material and compaction conditions match actual conditions in Silos 1 and 2 as much as possible.
Response:
Action:

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.5 Pg #: 11 of 70 Line #: na Code: C
Original Comment #:
Comment: The text mentioned debris such as plastic bags being added to the surrogate. What other debris will be tested? Suggest that tools, fasteners, and some other "hard" objects be tested if possible.
Response:
Action:

4. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Run ITL-1A Pg #: 26 of 70 Line #: na Code: C
Original Comment #:
Comment: This and subsequent data logs request sketches of conditions during testing. This method of recording data is highly subjective and not very accurate. OEPA suggests digital images be taken to help assess and record conditions during testing.
Response:
Action:



Department of Energy

**Ohio Field Office
Fernald Area Office**

P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



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MAY 9 2002

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, IL 60604-3590

DOE-0430-02

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

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSES TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS AND THE FINAL FERNALD ENVIRONMENTAL MANAGEMENT PROJECT SITE
DEER MANAGEMENT PLAN**

- References:
- 1) Letter, T. Schneider to J. Reising, "Fernald Environmental Management Project Site Deer Management Plan," dated January 8, 2002
 - 2) Letter, J. Saric to J. Reising, "Deer Management Plan," dated January 16, 2002

Enclosed for your approval are responses to the Ohio Environmental Protection Agency (OEPA) comments and the final Fernald Environmental Management Project Site Deer Management Plan. This document was developed as requested by the Natural Resource Trustees and has been revised to include the OEPA comment responses as referenced above. This document was approved by the United States Environmental Protection Agency as noted in Reference 2.

MAY 9 2002

Mr. James A. Saric
Mr. Tom Schneider

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DOE-0430-02

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If you have any questions or need further information, please contact Pete Yerace at
(513) 648-3161.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Yerace

Enclosures: As Stated

cc w/enclosures:

R. J. Janke, OH/FEMP
D. Pfister, OH/FEMP
P. Yerace, OH/FEMP
B. Kurey, USFWS
T. Schneider, OEPA-Dayton (3 copies of enclosures)
G. Jablonowski, USEPA-V, SRF-5J
F. Bell, ATSDR
D. Sarno, FCAB
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
M. Wojciechowski, Tetra Tech
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosures:

R. Greenberg, EM-31/CLOV
N. Hallein, EM-31/CLOV
K. Nickel, OH/FEMP
J. Reising, OH/FEMP
E. Skintik, OH/FEMP
A. Tanner, OH/FEMP
D. Carr, Fluor Fernald, Inc./MS2
J. Chiou, Fluor Fernald, Inc./MS64
J. Foster, Fluor Fernald, Inc./MS52-0
T. Hagen, Fluor Fernald, Inc./MS65-2
J. Homer, Fluor Fernald, Inc./MS65-2
L. Ludwick, Fluor Fernald, Inc./MS65-2
H. Swiger, Fluor Fernald, Inc./MS65-2
E. Woods, Fluor Fernald, Inc./MS65-2
ECDC, Fluor Fernald, Inc./MS52-7

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**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS
ON THE DRAFT FERNALD ENVIRONMENT MANAGEMENT PROJECT
SITE DEER MANAGEMENT PLAN
(20900-PL-0001, REVISION A)**

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

SPECIFIC COMMENTS

Commenting Organization: Ohio EPA
Section #: 2.2.5 Pg. #: 2-3 Line #: 2 Commentator: DSW
Original Comment #: 1 Code: C

Comment: The statement is made that "wetland plants" were damaged. Does this include all wetland plants including plugs (e.g., of sedges), trees and shrubs; or just trees and shrubs; or just trees or just shrubs? Please clarify.

Response: The statement "wetland plants" refers only to trees and shrubs. Herbaceous plants were not surveyed for deer damage. Visual observations of herbaceous plants revealed that some grazing was occurring, but damage was minimal.

Action: Replace the term "wetland plants" with "woody vegetation."

Commenting Organization: Ohio EPA
Section #: 2.3 Pg. #: 2-4 Lines #: 5-8 Commentator: DSW
Original Comment #: 2 Code: C

Comment: Please elaborate on costs, the brief statement that \$6,240 are 4% of total damage needs clarification (e.g., on what is the \$6,420 based, what is meant by representing 4% of damage, what is the estimate of costs in terms of ecological damage, etc.)

Response: The \$6,240 figure is based on the cost of the 2001 replacement plant material for the wetland mitigation project. This value is for plant material only, and does not include installation costs, such as labor and equipment rental. The statement that "This figure only includes 4% of the total deer damage..." demonstrates that only 4% of the total number of trees and shrubs that were damaged by deer in 2000 were killed.

Action: Delete the last two sentences of Section 2.3 and replace the following: "The cost of 2001 replacement plant material in A1PI was about \$6,240. Replacement plantings were required because of the significant deer damage within the project, as discussed earlier."

Commenting Organization: Ohio EPA
Section #: 3.0 Pg. #: 3-1 Line #: 9 Commentator: DSW
Original Comment #: 3 Code: E

Comment: Delete the word "in."

Response: Agree.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA

Commentator: DSW

Section #: 3.1

Pg. #: 3-1

Lines #: 19-23

Code: C

Original Comment #: 4

Comment: In the previous sections, statements are made indicating the density of deer not to be a local phenomenon, but related to an areal extent larger than the site (e.g., Page 1-3, Lines 22-25; Page 2-1, Lines 7-11). It does not seem reasonable to attribute browsing differences to density differences from one part of the site to another due to the relatively small size of the site and the transient nature of the deer.

Response: Agree.

Action: Replace "...deer densities are lighter" with "...of some other factor."

Commenting Organization: Ohio EPA

Commentator: DSW

Section #: 3.1

Pg. #: 3-1

Lines #: 27-29

Code: C

Original Comment #: 5

Comment: One of the goals of the patches in Area 8, Phase II was to evaluate different deer repellents. Is there any result from this or other comparison study of different repellents? Please explain the strategy of testing different repellents (i.e., effectiveness vs. cost).

Response: The research in A8PII was discontinued once the Natural Resource Trustees negotiated shrub densities for future restoration projects.

Action: None required.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: 3.1

Pg. #: 3-1

Lines #: 27-29

Code: C

Original Comment #: 6

Comment: What is the time frame of effectiveness in regards to the odor repellents vs. taste repellents? If there are differences, could they possibly be used as a measurement to determine a comparison between the two repellents?

Response: Literature suggests that the length of effectiveness is based on the type of application material as opposed to the method of deterrent. Latex-based repellents (which are used at the FEMP) are generally considered to remain effective much longer than water-based applications, since rain and condensation dilute and wash off the repellent soon after it is applied. The latex-based repellents only require applications several times a year, in order to protect new growth. Water-based repellents need to be applied every several weeks. However, it should be noted that it is the experience of the DOE deer management expert that taste and odor repellents provide only short-term protection, regardless of the type of application. This has been observed on site, where taste repellents have had limited success in some portions of the wetland mitigation project.

Action: None required.

Commenting Organization: Ohio EPA

Commentator: DSW

Section #: 3.0

Pg. #: 3-1

Line #: 11

Code: C

Original Comment #: 7

Comment: This states that two options are discussed (i.e., tubes and repellents) when three are actually included (exclosure).

Response: Agree.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: 4.1.1

Pg. #: 4-1

Line #:

Code: C

Original Comment #: 8

Comment: The section fails to address the fact that DOE successfully implements regulated deer hunting on a number of other facilities. These facilities occur within Ohio and other states. These facilities carry out similar missions to Fernald including remote area monitoring, and are able to implement controlled hunting.

Additionally, it is unclear how the problems suggested (e.g., movement of wounded animals off-site, noise, etc.) are addressed in the support of adjacent property hunting. Also, no discussion of regulated hunting with bow and arrow is included.

Ohio EPA concurs with the reports conclusion that hunting is an effective tool for managing deer herd size. Therefore, we believe that on-site as well as off-site controlled hunting is an appropriate method for managing deer damage in restoration projects.

Response: Hunting is an effective method for managing regional deer populations. However, it is not effective for managing local populations on a relatively small site, such as the FEMP. On-property deer are primarily transient, and any culled deer would soon be replaced by new deer from off-property. Controlled hunting at other DOE facilities occurs in much larger areas, where more resident deer are present.

Action: Revise text to clarify that regulated hunting is effective regionally, but not necessarily locally.

Commenting Organization: Ohio EPA

Commentator: DSW

Section #: 4.2

Pg. #: 4-2

Line #: 22

Code: C

Original Comment #: 9

Comment: The statement is made that "Electric fencing is an ideal solution to keep out deer." This is an overstatement and should be modified/eliminated. It is not yet known if electric fencing will be effective at the site (see Section 5.4). Apple orchardists in the northeast generally use 10-foot exclusion fences around their orchards rather than electric fencing, indicating exclusion fencing to be superior to electric fencing. To state that electric fencing is a suitable alternative, rather than an ideal solution seems more appropriate.

Response: Agree. It is the experience of the DOE deer management expert that electric fencing provides only short-term protection. Deer soon adapt to the fencing and adjust their behavior accordingly.

Action: Replace the statement "...an ideal solution..." with "...one alternative..." Add text stating that electric fencing provides only short-term effectiveness.

Commenting Organization: Ohio EPA
 Section #: 4.2 Pg. #: 4-2 Line #: 27 Commentator: OFFO
 Code: E
 Original Comment #: 10
 Comment: Should the word "effective" in this sentence be changed to "electric?"

Response: Yes.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA
 Section #: 4.3 Pg. #: 4-3 Line #: Commentator: OFFO
 Code: C
 Original Comment #: 11
 Comment: The Deer Management Plan does not clearly state DOE's position regarding the relocation of deer. Please clarify.

Response: DOE does not endorse the relocation of deer from the FEMP. In addition to the expense, it is very difficult to find an acceptable area for relocation.

Action: Revise text accordingly

Commenting Organization: Ohio EPA
 Section #: 4.4 Pg. #: 4-3 Line #: Commentator: OFFO
 Code: C
 Original Comment #: 12
 Comment: Please clarify whether DOE will or will not implement the option of providing supplemental food for deer control. Ohio EPA believes that an additional food source for deer will only attract deer to the Fernald property.

Response: Agree. DOE does not endorse the use of supplemental food at the FEMP.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA
 Section #: 5.1 Pg. #: 5-1 Line #: 10 Commentator: OFFO
 Code: C
 Original Comment #: 13
 Comment: For clarification, please include the "type" of repellent being discussed in this first sentence.

Response: Agree. Latex-based taste repellents will continue to be used at the FEMP.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA
 Section #: 5.2 Pg. #: 5-1 Line #: Commentator: OFFO
 Code: C
 Original Comment #: 14
 Comment: In what areas on site and in what time frame will the systemic repellent be used at Fernald? Have any studies shown whether the systemic repellent works better on certain plants? Please include this information in the text.

Response: In Fall 2001, systemic repellents were placed at the base of vegetation in several areas within the wetland mitigation project. This vegetation will be evaluated in 2002 to determine the effectiveness of the repellents.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA Commentator: OFFO
 Section #: 5.3 Pg. #: 5-1 Lines #: 23 & 27-29 Code: E
 Original Comment #: 15

Comment: This paragraph needs clarification. Instead of stating that "support should" be given to local landowners for obtaining depredation permits and then discussing the fact that DOE and Fluor Fernald already support the idea, simply state "Support is provided," etc.

Response: Agree.

Action: Revise text accordingly.

Commenting Organization: Ohio EPA Commentator: OFFO
 Section #: 5.4 Pg. #: 5-2 Lines #: 3 & 8 Code: E
 Original Comment #: 16

Comment: Please replace "should" and "would" in these sentences with "will."

Response: Electric fencing is no longer considered an option for deer control at the FEMP. See response to Comment No. 9 above.

Action: Delete Section 5.4, "Use of Electric Fence."

Commenting Organization: Ohio EPA Commentator: OFFO
 Section #: 5.4 Pg. #: 5-2 Line #: Code: C
 Original Comment #: 17

Comment: In what areas on site will the electric fence be used? What type of approach is DOE planning? Are there studies that possibly provide a "best" method of application?

Response: See response to Comment No. 16 above.

Action: Delete Section 5.4, "Use of Electric Fence."

Commenting Organization: Ohio EPA Commentator: DSW
 Section #: Figures Pg. #: Figure 2 Line #: Code: E
 Original Comment #: 18

Comment: Legend for Figure 2 refers to A1PI rather than A8PII.

Response: Agree.

Action: Revise figure accordingly.