



Department of Energy

Ohio Field Office
 Fernald Closure Project
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JAN 12 2005

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-0117-05

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

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT AREA 9, PHASE III ABANDONED OUTFALL LINE PART THREE EXCAVATION PLAN, DRAFT CERTIFICATION DESIGN LETTER AND CERTIFICATION SAMPLING PROJECT SPECIFIC PLAN

- References:
- 1) Letter DOE-0041-05, W. Taylor to J. Saric and T. Schneider, "Transmittal of the Draft Certification Design Letter and Certification Sampling Project Specific Plan for Area 9, Phase III Abandoned Outfall Line Excavation Plan - Part Three," dated November 10, 2004
 - 2) Letter, J. Saric to J. Reising, "A9 P3 AOL Part 3," dated November 15, 2004
 - 3) Letter DOE-0080-05, W. Taylor to J. Saric and T. Schneider, "Transmittal of Responses to the Ohio Environmental Protection Agency Comments on the Draft Area 9, Phase III Abandoned Outfall Line Excavation Plan - Part Three," dated December 7, 2004
 - 4) Letter, J. Saric to J. Reising, "A9 P3 AOL Part 3," dated December 8, 2004
 - 5) Letter, T. Schneider to W. Taylor, "Conditional Approval - RTC A9PIII AOL Excavation Plan Part Three," dated December 9, 2004
 - 6) Letter, T. Schneider to W. Taylor, "Conditional Approval - CDL and PSP for Certification Sampling for A9PIII AOL - Part 3," dated December 10, 2004

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Mr. James A. Saric
Mr. Tom Schneider

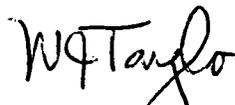
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DOE-0117-05

Enclosed for your review and approval are responses to the Ohio Environmental Protection Agency comments on the draft Area 9, Phase III Abandoned Outfall Line Part Three Excavation Plan, draft Certification Design Letter (CDL) and draft Certification Sampling Project Specific Plan (PSP). These documents were approved by the United States Environmental Protection Agency (USEPA) as noted in References 1 and 4. The Excavation Plan comment responses are in response to Reference 5 above and will be incorporated into the final Excavation Plan upon approval. Also included with the Excavation Plan comment responses is the revised Appendix D with the detailed approach for radiological monitoring of the existing abandoned outfall line encasement pipe under State Route 128. The CDL and Certification Sampling PSP comment responses are in response to Reference 6 and will also be incorporated into the final CDL and PSP upon approval.

If you have any questions or require additional information, please contact Johnny Reising at (513) 648-3139.

Sincerely,


William J. Taylor
Director

FCP:Reising

Enclosures: As Stated

cc w/enclosures:

D. Pfister, OH/FCP

J. Reising, 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

Mr. James A. Saric
Mr. Tom Schneider

cc w/o enclosures:

- R. Abitz, Fluor Fernald, Inc./MS64
- K. Alkema, Fluor Fernald, Inc./MS01
- L. Barlow, Fluor Fernald, Inc./MS52-3
- J. Chiou, Fluor Fernald, Inc./MS64
- M. Frank, Fluor Fernald, Inc./MS64
- F. Johnston, Fluor Fernald, Inc./MS52-5
- U. Kumthekar, Fluor Fernald, Inc./MS64
- S. Lorenz, Fluor Fernald, Inc./MS52-3
- E. Lupton, Fluor Fernald, Inc./MS64
- J. McCormack, Fluor Fernald, Inc./MS17
- F. Miller, Fluor Fernald, Inc./MS64
- C. Murphy, Fluor Fernald, Inc./MS77
- D. Nixon, Fluor Fernald, Inc./MS01
- D. Powell, Fluor Fernald, Inc./MS64
- T. Snider, Fluor Fernald, Inc./MS64
- B. Zebick, Fluor Fernald, Inc./MS60
- ECDC, Fluor Fernald, Inc./MS52-7

**RESPONSES TO ADDITIONAL
OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS ON THE DRAFT AREA 9, PHASE III
ABANDONED OUTFALL LINE
EXCAVATION PLAN – PART THREE**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**

JANUARY 2005

U.S. DEPARTMENT OF ENERGY

**RESPONSES TO OHIO ENVIRONMENTAL
PROTECTION AGENCY COMMENTS ON
THE DRAFT CERTIFICATION DESIGN LETTER
AND PROJECT SPECIFIC PLAN FOR
CERTIFICATION SAMPLING OF AREA 9, PHASE III
ABANDONED OUTFALL LINE – PART THREE**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**

JANUARY 2005

U.S. DEPARTMENT OF ENERGY

REVISED APPENDIX D

DETAILED APPROACH FOR RADIOLOGICAL MONITORING (SURVEY) OF THE EXISTING ABANDONED OUTFALL LINE ENCASEMENT PIPE UNDER SR 128

Detailed approach for full radiological monitoring (survey) of inside surface the existing AOL 26-inch steel/24-inch vitrified clay encasement pipe under State Route (SR) 128 will be as follows:

A. Existing AOL Encasement:

The length of the existing AOL encasement pipe under SR 128 is approximately 70 feet. Based on the reference drawing for the 16-inch AOL, existing encasement pipe is connected together by two pipes: a 54-foot long 26-inch steel pipe [inside diameter (I.D.) between 25 and 25.375-inch and outside diameter (O.D.) 26-inch], and a 16-foot long 24-inch vitrified clay pipe (VCP) (I.D. 24-inch and O.D. 26-inch +/-). The connection between these two pipes is made by forming a wooden box around the connection and is filled with concrete/grout. The inside diameters of two pipes do not match at the connection, and therefore require additional consideration for full radiological survey at the pipe connection.

B. Approach for Radiological Monitoring/Survey:

The approach for full radiological monitoring/survey of the existing AOL encasement pipe will be based on limitation of monitoring equipment, length of encasement pipe, and access to the monitoring surface (e.g., vertical face of the encasement pipe at pipe connection between steel pipe and VCP). Based on these limitations, full radiological monitoring/survey of the encasement pipe including 24-inch VCP, 26-inch steel pipe, and pipe connection between these pipes will be performed as follows:

1. 24-inch VCP:

Radiological monitoring/survey of the inner surface of the 16-foot +/- long 24-inch I.D. VCP will be performed by standard monitoring equipment from east end of the encasement pipe (see construction drawing 99X-5500-G-00822). The entire inner surface of the 24-inch VCP will be accessible by monitoring equipment with 20-foot rod and 20-foot frisker cord from east end of the encasement pipe.

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2. 26-inch Steel Pipe and Pipe Connection:

Radiological monitoring/survey of the inner surface of the 54-foot +/- long 25 to 25.375-inch I.D. steel pipe will be performed from west end of the encasement pipe (see construction drawing 99X-5500-G-00822). The entire inner surface of the 26-inch steel pipe and inner vertical surface at pipe connection will be accessible by monitoring equipment with a 60-foot rod and 60-foot frisker cord from west end of the encasement pipe. To accomplish full radiological monitoring/survey of 26-inch steel pipe and pipe connection, a monitoring assembly is being fabricated as shown on the attached Sketch-1. A 60-foot frisker cord will be used for radiological monitoring/survey and will be attached to the monitoring assembly as shown on sketch. Calibration of the frisker using a 60-foot cord will be performed conforming to the Radiological Control Procedures.

The monitoring assembly as shown on Sketch-1 consists of a 24.25 to 24.75-inch diameter 36-inch +/- long metal or plastic pipe "Plunger" mounted on a 1-inch diameter metal rod. The rod will have couplers at both ends for connecting to the 1-inch diameter tubular extendable metal rod (total extended length of 60-foot or longer). The frisker for radiological monitoring will be clamped at the end of the plunger as shown on Sketch-1. To provide horizontal stability during the radiological monitoring, additional support may be inserted approximately at middle of the rod length as shown on the sketch.

For radiological monitoring, the frisker clamped to the plunger and the frisker cord attached to the rod will be pushed into the encasement pipe with a threaded rod and coupler. The length of rod inserted in the encasement pipe will be measured with the markings on the rod. For monitoring the inner surface of the 26-inch steel encasement pipe, the frisker will be clamped horizontal facing up at the end of plunger. For monitoring the vertical inner surface at the pipe connection, the frisker will be clamped facing vertical out at the end of the plunger. The 60-foot frisker cable in both cases will be attached to the rod and will run from the plunger to the operating handle of the rod. After the plunger is completely pushed in the encasement pipe, radiological monitoring/survey of inner surface of encasement pipe will be performed in accordance with the Fernald Radiological Control Procedure. After radiological monitoring/survey of inside surface of the existing encasement pipe is complete, the plunger, frisker and frisker cord, and rod will be monitored/surveyed for any radiological contamination.

C. Free Release justification:

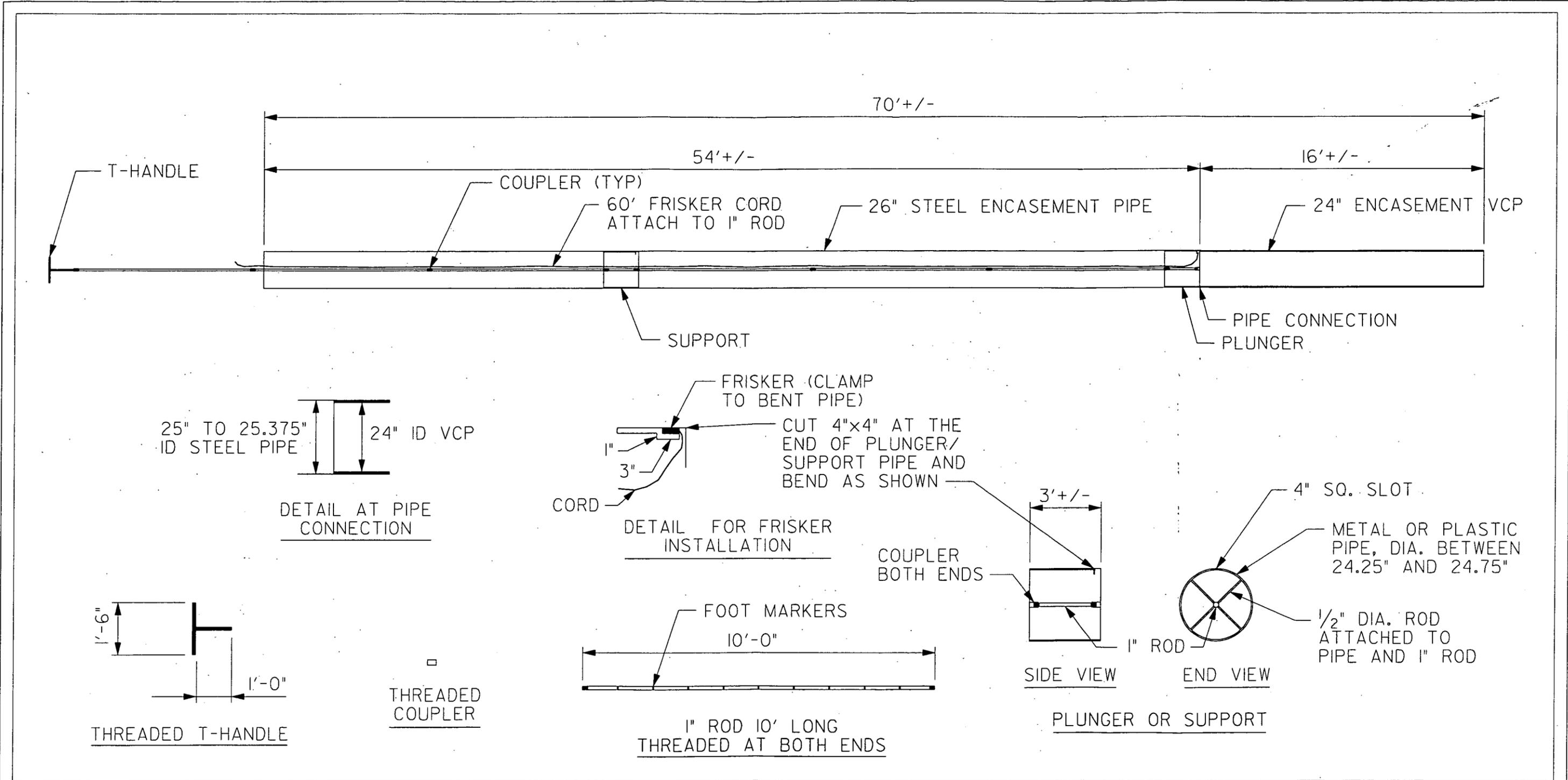
As the 16-inch AOL pipe is being removed, Radiological Control Technicians will monitor the outside surface of AOL pipe for contamination. This data along with the survey of the inside surface of the encasement pipe and any physical sampling or real time data will be utilized in the free release justification process.

The radiological monitoring criteria that the encasement pipe will be monitoring to, will be in accordance with 10 CFR 835 Appendix D, DOE Order 5400.5, and Site Radiological Control Procedure RP-0025. The isotopes of concern that have been identified and that are associated with the AOL are radium-226 and uranium-238.

Free release criteria for AOL encasement pipe is as follows:

1. Uranium-238 1000 dpm/100 cm² removable and 5000 dpm/100 cm² fixed plus removable.
2. Radium-226 is 20 dpm 100 cm² removable and 500 dpm/100 cm² fixed plus removable.

If contamination is found to be above the free release criteria as stated above during the radiological monitoring process, the AOL encasement pipe will be considered contaminated and will not be free released.



APPENDIX D
 AOL ENCASEMENT PIPE
 RADIOLOGICAL MONITORING/SURVEY ASSEMBLY
 PLAN AND DETAILS

SKETCH 1

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