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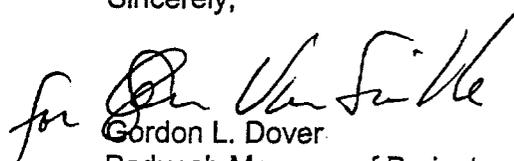
Subject: Transmittal—*Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
(DOE/OR/07-1949&D2/R1)

Dear Mr. Seaborg:

Enclosed are 18 copies of the subject document, along with the Comment Response Summary. Also enclosed is suggested text for the transmittal letter to the regulatory agencies. Please forward 11 copies of the enclosed document to the following at the Commonwealth of Kentucky regulatory agencies: Ms. Gaye Brewer, Mr. Robert Daniell (7), Mr. Steve Hampson, Ms. Janet Miller, and Mr. Eric Scott. Four copies of the enclosed document are to be transmitted to the following at the U.S. Environmental Protection Agency: Mr. Jeff Crane and Mr. Carl Froede (3). The remaining three copies are for your use. This document is being distributed in accordance with the *Standard Distribution List for Bechtel Jacobs Company LLC Primary and Secondary Documents (01/28/03)*.

If you have any questions or require further information, please contact Rudy Bonilla of my staff at 5198.

Sincerely,


Gordon L. Dover
Paducah Manager of Projects

GLD:dm
LTR-PAD/EP-SJ-02-0016

Enclosure: 1. Subject document (18)
2. Comment Response Summary
3. Suggested text

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Mr. W. Don Seaborg
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February 28, 2003

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Secondary Document

**Land Use Control Implementation Plan
for the North-South Diversion Ditch
at the Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**



I-04816-0036



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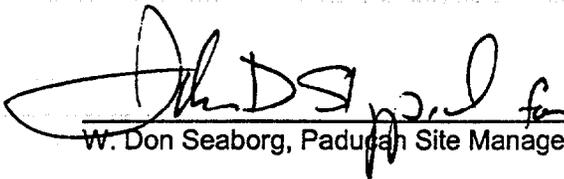
contributed to the preparation of this document and should not
be considered an eligible contractor for its review.

CERTIFICATION

Document Identification: *Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE-OR/07-1949&D2/R1)*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

U.S. Department of Energy (DOE)
Owner and Operator

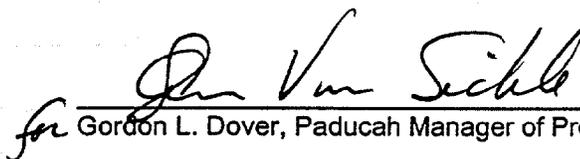


W. Don Seaborg, Paducah Site Manager

02-28-03
Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Bechtel Jacobs Company LLC
Co-operator



for Gordon L. Dover, Paducah Manager of Projects

2/28/03
Date Signed

**Land Use Control Implementation Plan
for the North-South Diversion Ditch
at the Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued—February 2003

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Environmental Management Activities at the
Paducah Gaseous Diffusion Plant
Paducah, Kentucky 42001

managed by
Bechtel Jacobs Company LLC

for the
U.S. DEPARTMENT OF ENERGY
under contract DE-ACO5-98OR22700

PREFACE

This *Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1949&D2, was prepared in accordance with the approved *Land Use Control Assurance Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1799&D2, dated January 2000. This implementation plan identifies the area that is under restriction, identifies each land use control objective for the North-South Diversion Ditch inside the security fence, and specifies the specific controls and mechanisms required to achieve each identified objective.

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ACRONYMS

bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
KAR	Kentucky Administrative Regulations
LUCAP	land use control assurance plan
LUCIP	land use control implementation plan
LUC	land use control
NSDD	North-South Diversion Ditch
O&M	Operation and Maintenance
PGDP	Paducah Gaseous Diffusion Plant
ROD	record of decision
S&HWP	Safety and Health Work Plan
SWMU	solid waste management unit
SWOU	Surface Water Operable Unit
TEP	Trenching, Excavation, and Penetration Permit

1. INTRODUCTION

The North-South Diversion Ditch (NSDD) at the Paducah Gaseous Diffusion Plant (PGDP) is subject to remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). That portion of the NSDD located inside the PGDP security fence is defined as Solid Waste Management Unit (SWMU) 59. As shown in Figure 1, this portion of the NSDD has been further divided into two sections for the purposes of evaluating and implementing this remedial action (see Table 1). Response actions for portions of the NSDD located outside the security-fenced area will be addressed in a later decision document.

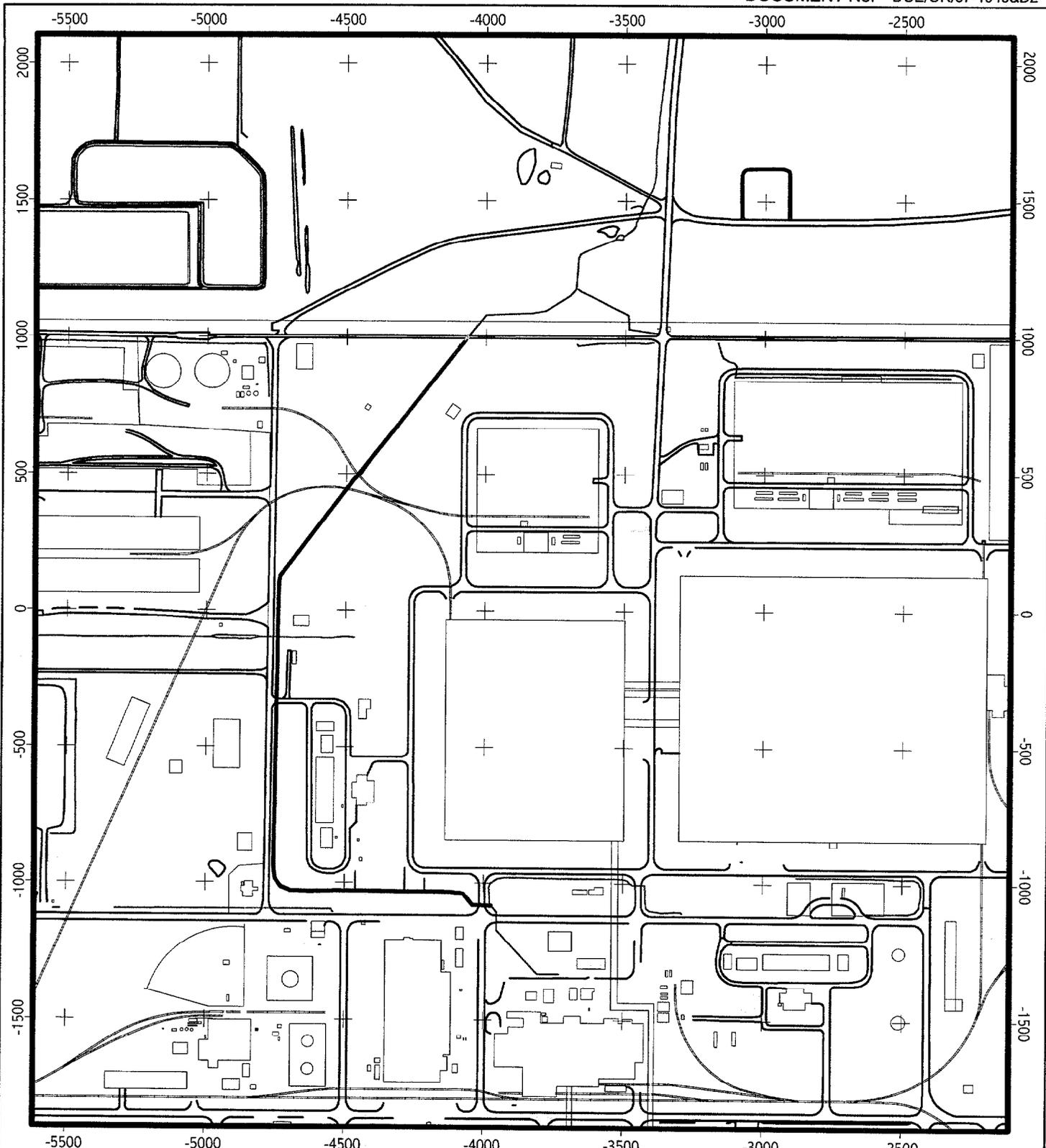
Table 1. Summary of NSDD sections

SWMU	Location	Section	Beginning point	Ending point
59	Inside PGDP fence	1	NSDD source	C-616-L Lift Station
		2	C-616-L Lift Station	PGDP security fence

The *Record of Decision for Interim Remedial Action at the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1948&D2, issued August 2002, incorporates land use controls (LUCs) as a component of the selected remedy (DOE 2002). Since the remedy includes leaving hazardous substances in place above unrestricted-use levels, the LUCs play an important role in preventing unacceptable exposures and incompatible land uses and ensuring that the selected remedy remains protective of human health.

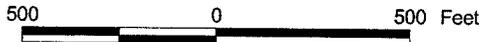
The U.S. Department of Energy (DOE), through a Memorandum of Agreement with the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Kentucky, has agreed to comply with the *Land Use Control Assurance Plan (LUCAP) for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1799&D2, (DOE 2000a) when LUCs, including institutional controls, are selected as part of a remedial action being taken (EPA 2000). The PGDP LUCAP specifies that a unit-specific Land Use Control Implementation Plan (LUCIP) will be developed as a component of the post-record of decision (ROD) documentation for each waste unit that relies on LUCs as part of the corrective measure/remedial action. Upon final approval, this LUCIP will be appended to and become part of the Remedial Design/Remedial Action Work Plan and the LUCAP. The LUCIP will establish LUC implementation and maintenance requirements enforceable under CERCLA and the Federal Facility Agreement, including enforceable requirements for regular periodic monitoring of each LUC after its implementation. The LUCAP will include a PGDP site map that includes those land areas subject to the LUCs defined in this LUCIP, including the on-site NSDD disposed waste.

This LUCIP identifies various LUCs for the remedial action of the NSDD. The DOE will implement several new LUCs, and will rely, as well, upon existing controls such as fences and security patrols. DOE will provide the excavation/penetration permit program with contamination information before remedial activities begin and will continue to update that information, as needed, during and after completion of the remedial action.



LEGEND:

 NSDD SECTION 1
 NSDD SECTION 2



U.S. DEPARTMENT OF ENERGY
 DOE OAK RIDGE OPERATIONS
 PADUCAH GASEOUS DIFFUSION PLANT



BECHTEL JACOBS COMPANY LLC
 MANAGED FOR THE US DEPARTMENT OF ENERGY UNDER
 US GOVERNMENT CONTRACT DE-AC-05-98OR22700
 Oak Ridge, Tennessee • Paducah, Kentucky • Portsmouth, Ohio



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Fig. 1. Portions of the NSDD inside the security-fenced area (i.e., Sections 1 and 2).

2. PURPOSE

This LUCIP further describes the LUCs outlined in the ROD for the NSDD and generally specifies what actions must be taken to implement and maintain the required LUCs before, during, and after all the remedial actions have been completed. The LUCs are necessary to maintain the level of protectiveness that the remedial actions were designed to achieve. As stated in the LUCAP (DOE 2000a), the specific purposes of this LUCIP are to accomplish the following:

- identify the area that is under restriction (e.g., a survey plat that is certified by a professional land surveyor, a detailed description or map using the plant grid coordinate system, etc.);
- identify each LUC objective for the NSDD (e.g., prohibit residential use, etc.); and
- specify the specific controls and mechanisms required to achieve each identified objective (e.g., install/maintain a fence, post warning signs, etc.).

The area that is under restriction is identified in Section 6; the LUC objectives are presented in Section 5; and the specific controls and mechanisms required to achieve each identified objective are specified in Section 6 of this LUCIP.

3. REMEDIAL ACTIONS SUMMARY

Table 2 provides a summary of the selected remedial actions specified in the ROD. These actions consist of a two-phase project to ensure the containment of future surface-water runoff from inside the security-fenced portion of the NSDD watershed and excavation of contaminated soils and sediment along Sections 1 and 2 of the NSDD. Although the remedial actions will significantly reduce environmental releases, some residual radioactive, metal, and organic contamination will remain in soils at levels that are unacceptable for unrestricted use; therefore, LUCs will be implemented under the ROD to ensure protectiveness. It is anticipated that the property on which the NSDD is located will continue to be owned by the DOE. It also is assumed that the areas located within the PGDP security fence will continue to be subject to extensive site access restrictions (i.e., security) that deter intrusion.

The action in SWMU 59 will entail excavation to a depth of at least 4 ft below ground surface (bgs) followed by collection of soil samples from the bottom of the excavation. If the sampling indicates the presence of excess levels of residual contamination, DOE will review the data and determine if additional, limited excavation is required. Wastes would be characterized and disposed of at an appropriate on- or off-site facility after excavation and characterization. Following excavation, the ditch channel will be restored to grade with 2 ft of clay cover and approximately 2 ft of clean soil and vegetated, satisfying the Remedial Action Objective of elimination of a surface exposure pathway. The clay cover will provide an extra layer of protection in the elimination of the surface exposure pathway. If excavation achieves or exceeds the specified cleanup levels, long-term maintenance of the clay cover will not be required. The cleanup levels for soils at depth are expected to exceed PGDP *de minimis* contaminant levels for industrial use.

Table 2. Summary of remedial actions for the NSDD at the PGDP

SWMU and section	Summary of selected remedy
SWMU 59 (Sections 1 and 2)	The selected remedy for these sections of the NSDD is Alternative 2, a two-phased approach to the excavation and restoration of the NSDD with a clay cover and vegetation, rerouting of process water, and LUCs. Phase I of Alternative 2 consists of the installation of piping to route process water discharges to the existing C-616-Water Treatment Facility (instead of into the NSDD); excavation of an on-site surge basin to contain stormwater runoff until it can be treated through the C-616 facility; and the installation of a plug in the NSDD at the PGDP security fence and in the three other ditches within the watershed to prevent discharge of stormwater runoff to areas outside the security-fenced area. Phase II consists of excavation of contaminated soils and sediments to a depth of at least 4 ft bgs along Sections 1 and 2. LUCs and five-year reviews will be necessary to implement this alternative.

4. RELATIONSHIP TO OTHER CERCLA DOCUMENTS

The NSDD is part of the Surface Water Operable Unit (SWOU) at the PGDP. The remedial actions described in this document for Sections 1 and 2 of the NSDD are considered to be "early actions." Additional early actions may occur for other SWMUs in the SWOU. If LUCs are a component of these early remedial actions, separate LUCIPs for each of the early action RODs will be prepared and appended to the LUCAP. These early actions will be followed by a final ROD.

Following completion of the remedial action for Sections 1 and 2 of the NSDD, any planned operation and maintenance (O&M) measures will be described in detail in an O&M Plan. In addition, a Postconstruction Report or a Remedial Action Report will be prepared to document the completed remedial action activities.

5. LAND USE CONTROL OBJECTIVES

As previously indicated, the NSDD located inside the security-fenced area was divided into two sections for evaluating and implementing this remedial action. Figure 3 of the Site Management Plan for the PGDP (DOE 2000b) contains a "reasonably anticipated future land use" map. That map indicates that the area inside the PGDP security fence will continue to be used for industrial purposes. Although unlikely, this reasonably anticipated land use could change when the final PGDP site-wide ROD and LUCIP documents are issued. DOE does not expect to transfer ownership of the NSDD outside of the federal government for less restrictive uses in the near term. If, however, a "major change in land use" for Sections 1 and 2 is contemplated by DOE, then DOE will follow the notification and evaluation process set forth in the PGDP LUCAP.

The following LUC objectives for SWMU 59 (i.e., Sections 1 and 2) are necessary to ensure the protectiveness of the selected remedy:

- prevent unauthorized excavations or penetrations below prescribed contamination cleanup depths;
- prevent unauthorized access; and
- preclude uses of the area that are inconsistent with the assumed land use to protect human health and the environment (i.e., to prevent recreational and/or residential use).

There are no additional specific limits to the use of Sections 1 and 2 of the NSDD following implementation of the selected remedy under the interim LUC objectives mentioned above. Uses other than those listed may take place within these areas provided they are authorized by DOE and not inconsistent with the LUC objectives.

6. LAND USE CONTROLS

The selected remedy for Sections 1 and 2 of the NSDD includes three LUCs: property record actions, administrative controls, and access controls. Table 3 contains a summary of these LUCs, including the purpose, duration, implementation, and affected areas. Figure 1 illustrates the sections of the NSDD that are located inside the security-fenced area and are subject to LUCs.

All three of these LUCs will be implemented in both Section 1 and Section 2 of the NSDD. The use of redundant controls is an effective method of ensuring the overall reliability of the controls. Each of the controls is discussed in more detail in the following subsections.

6.1 PROPERTY RECORD ACTIONS

This LUC will apply to SWMU 59 (i.e., Sections 1 and 2 of the NSDD). The term "Property Record Actions" includes property record notices and property record restrictions. Property Record Actions consist of the LUCs used to place notices or restrictions on file with public property records.

The term "Property Record Notice" as used in this LUCIP refers to any nonenforceable, purely informational document filed with the McCracken County Court Clerk that alerts anyone searching the records to important information about the contamination present in Sections 1 and 2 of the NSDD. The notice will depict the relevant area through the inclusion of a survey plat (i.e., accomplished by a licensed land surveyor) or a detailed map including a description using the plant grid coordinate system. Both the notice and survey plat will be filed by DOE (e.g., Real Estate Office) in the County Court Clerk's records of the pertinent county. An example of the language that would be included in a property notice is included as Appendix A.

Table 3. Summary of LUCs for Sections 1 and 2 of the NSDD at the PGDP

Type of control	Purposes of control	Duration	Implementation	Affected areas
Property Record Actions Notices ^a	Provide notice to anyone searching records about the existence and location of contaminated areas and land use assumptions.	As long as deemed necessary.	Notice recorded by DOE in accordance with state law at County Court Clerk's office: as soon as practicable after signing of the ROD.	<ul style="list-style-type: none"> • SWMU 59 (i.e., Sections 1 and 2 of the NSDD)
Property Record Actions Restrictions ^b	Restrict use of property by imposing limitations and maintaining the clay cover.	As long as deemed necessary.	DOE will draft the restrictive covenant language in accordance with CERCLA and applicable laws upon transfer of affected areas. DOE will record the restrictive covenant language in accordance with state law at County Court Clerk's office.	<ul style="list-style-type: none"> • SWMU 59 (i.e., Sections 1 and 2 of the NSDD)
Excavation/Penetration Permits Program ^c	Require review and approval of any proposed intrusive activities to protect workers and remedy; process may prohibit or limit intrusive activities.	As long as deemed necessary.	<ul style="list-style-type: none"> • Implemented by DOE and its contractors. • Provide permits program with contamination information as soon as practicable after signing the ROD, and update information regularly while remediation proceeds. • Initiated by permit request. 	<ul style="list-style-type: none"> • SWMU 59 (i.e., Sections 1 and 2 of the NSDD)
Access Controls ^d (e.g., signage, fences, gates, security measures, etc.)	Restrict access to workers and prevent public/uncontrolled access.	As long as deemed necessary.	<ul style="list-style-type: none"> • Controls evaluated and selected upon completion of remedial action • Controls maintained by DOE. 	<ul style="list-style-type: none"> • SWMU 59 (i.e., Sections 1 and 2 of the NSDD)

^a Property Record Notices – Refers to any nonenforceable, purely informational document recorded along with the original property acquisition records of DOE and its predecessor agencies that alerts anyone searching property records to important information about contamination/waste on the property.

^b Property Record Restrictions– Refers to conditions and/or covenants that restrict or prohibit certain uses of real property and to limitations on its use necessitated by residual contamination. DOE will ensure that legally enforceable use restrictions are in place that prohibit or otherwise restrict transferees from conducting activities that are not compatible with the specified land use.

^c Excavation/Penetration Permit Program – Refers to the internal DOE/DOE contractor administrative program(s) that require the permit requestor to obtain authorization, usually in the form of a permit, before beginning any excavation/penetration activity (e.g., well drilling) for the purpose of ensuring that the proposed activity will not affect underground utilities/structures, or in the case of contaminated soil or groundwater, will not disturb the affected area without the appropriate precautions and safeguards.

^d Access Controls – Physical barriers or restrictions to entry.

The term "Property Record Restriction," as used in this LUCIP, refers to conditions and/or covenants that restrict or prohibit certain uses of real property. As long as the DOE owns the property on which Sections 1 and 2 of the NSDD are located, formal property record restrictions are not necessary. If any portion of this property on which the NSDD is located ever is transferred (i.e., sold, leased, donated), then DOE will ensure that legally enforceable use restrictions are in place to prohibit or otherwise restrict transferees (i.e., land owners, leasees, users) from conducting activities that are not compatible with the specified land use. The exact terms of the restrictions and the method of conveyance will be determined by the nature of the transfer. DOE will prepare the restrictions in accordance with CERCLA and applicable laws. DOE will execute all conveyance documents and will ensure that those documents are recorded properly with the McCracken County Court Clerk.

6.2 EXCAVATION/PENETRATION PERMITS PROGRAM

This LUC will apply to SWMU 59 (i.e., Sections 1 and 2 of the NSDD). The "DOE Permits Program" is an existing program administered by DOE and its contractors at the PGDP and includes a specific permitting procedure designed to provide a common site-wide system to identify and control potential personnel hazards related to trenching, excavation, and penetration. The Trenching, Excavation, and Penetration (TEP) Permit procedure requires formal authorization (i.e., internal permits/approvals) before beginning any intrusive activities at PGDP, is reviewed annually, and is implemented through required personnel training. The "DOE Permits Program" will be the primary mechanism to control industrial worker exposures to waste, below-grade structures, or contamination left in place that could be encountered during any future excavation activity.

The primary objective of the TEP permit procedure is to provide notice to the permit applicant of existing underground utility lines and/or other structures and to ensure that any excavation/penetration activity is conducted safely and in accordance with all environmental compliance requirements pertinent to the area. When requesting a TEP permit, the requester must, according to current procedures, consult various organizations including Civil, Electrical, and Construction Engineering; Industrial Hygiene and Safety, Environmental Compliance/Waste Management; and Health Physics to gather pertinent information about the excavation/penetration site. These organizations will perform a walk down of the intended work area, as necessary, to review existing utilities and postings (i.e., access controls).

The permit/approval includes all relevant information that is necessary to determine if and/or how industrial workers can safely penetrate the ground surface. Depending on the location of the proposed activity, such permits/approvals may contain restrictions that are designed to ensure the protection of workers. If the proposed location for the excavation/penetration activity is in a SWMU, the Environmental Compliance/Waste Manager performs the following activities:

- Notifies DOE/DOE prime contractor of proposed activity and documents notification in the project Safety and Health Work Plan (S&HWP).
- Documents work control instructions relating to environmental protection in the S&HWP.
- Provides name of environmental contact and appropriate SWMU fact sheet number for reference in S&HWP.

The SWMU fact sheet listed on the S&HWP provides information on contamination associated with the SWMU.

Per current procedures, DOE or its contractors perform the initial preparation of a requested excavation/penetration permit. The draft permit is reviewed, modified as necessary, and approved by DOE and its contractors prior to issuance to the Field Services Functional Manager for final approval. The reviews conducted by these sections ensure that the latest updates in engineering drawings, rad surveys, and SWMU inventories are considered prior to the issuance of an excavation/penetration permit.

All issued excavation/penetration permits are designated for a specific activity, are assigned an expiration date, and are tracked to ensure compliance with specified restrictions. If unexpected or off-normal conditions arise during a permitted activity, the permit requestor is required to file an occurrence report documenting the occurrence. In addition, the permit requestor is required to document changes to planned activities identified during field implementation in Field Change Requests and Field Change Notices. Upon completion of associated activities, the permit requestor is required to submit a completion report detailing the activities performed under the permit.

6.3 ACCESS CONTROLS

This LUC will apply to SWMU 59 (i.e., Sections 1 and 2 of the NSDD), which is located inside the PGDP security fence. The term "Access Controls," as used in this LUCIP, refers to physical barriers or restrictions (i.e., fences, gates, security measures, etc.).

Physical access to those portions of the NSDD located inside the security-fenced area (Sections 1 and 2) currently is, and will continue to be, restricted. In addition, if required by 10 CFR 835 and 401 KAR Chapters 30 – 37 following implementation of this final remedial action, both sides of Sections 1 and 2 of the NSDD will be posted with warning signs that provide notice of elevated levels of radionuclides, metals, and polychlorinated biphenyls. Additionally, other specific LUCs (as identified in Table 3) may be evaluated and selected for implementation at Sections 1 and 2 of the NSDD after review of excavation verification sampling results.

7. MONITORING AND INSPECTING LUCS

7.1 MONITORING

The PGDP LUCAP requires quarterly monitoring of LUCs unless another frequency is approved by the EPA and the Commonwealth of Kentucky (DOE 2000a). If another monitoring frequency is approved, it must be justified in the LUCIP. Table 4 summarizes the monitoring requirements for each LUC. A typical checklist can be found in Appendix B that reviews the details of the monitoring and inspections that will take place in accordance with the summary in Table 4 to verify that the LUCs are intact and functioning inside the security-fenced area. The purpose of this monitoring is to ensure that the LUCs are working properly and remain effective.

The property record notices filed for SWMU 59 will be monitored one time within one year following completion of remedial action and then once every five years in conjunction with the CERCLA Five-Year Review. These reviews will ensure that the property record notices have been properly filed and are readily available at the McCracken County Court Clerk's office.

Table 4. Summary of LUC monitoring requirements for Sections 1 and 2 of the NSDD at the PGDP

Type of control	Purpose of monitoring	Frequency and justification	Implementation
Property Record Actions	To ensure that Property Records Notices recorded at the County Court Clerk's office are filed properly.	<ul style="list-style-type: none"> • Frequency: to be monitored (i.e., verified) one time within one year following completion of remedial action, and then once every five years in conjunction with the CERCLA Five-Year Review. • Justification: property record notice is not expected to change once it has been filed. 	DOE official will verify that Property Record Notices are recorded properly and are readily available at the County Court Clerk's office.
Administrative Controls (e.g., excavation/penetration permits program, etc.)	To ensure that excavation/penetration permits program is functioning properly.	<ul style="list-style-type: none"> • Frequency: to be monitored at least annually. • Justification: permits program is part of an established procedure and is not expected to change. 	DOE official will verify that the contractor's permits program is functioning properly.
Access Controls (e.g., fences, gates, security measures, etc.)	To ensure that fences are erect and intact and gates/portals are functioning properly.	<ul style="list-style-type: none"> • Frequency: to be monitored at least annually. • Justification: condition of controls is not expected to deteriorate more rapidly than specified monitoring frequency. 	DOE official will verify that access controls are functioning properly.

The administrative controls identified in this LUCIP will be monitored at least annually to verify that the contractor's excavation/penetration permits program is functioning properly. Annual monitoring is appropriate, since the excavation/penetration permits program is part of an established procedure and is not expected to be deleted.

The access controls identified in this LUCIP will be monitored at least annually to verify that access controls are functioning properly (i.e., ensure that fences are erect and intact and security gates and portals are functioning properly). Annual monitoring is appropriate since the condition of these controls is not expected to deteriorate more rapidly than the annual monitoring frequency.

Activities associated with the monitoring and inspections of the LUCs will be documented and recorded in the Paducah Project Document Control Center. As stated in Section 2.7 of the PDGP LUCAP (DOE 2000a), "These inspections are to be conducted to determine whether the current land use remains protective and consistent with all corrective measure/remedial action objectives outlined in the unit-specific decision documents (e.g., engineering controls remain in place, etc.)."

7.2 FIELD INSPECTIONS

The PGDP LUCAP specifies that field inspections must be conducted at least annually to assess the conditions of all SWMUs subject to LUCs (DOE 2000a). The purpose of these inspections is to determine whether the current land use remains protective and consistent with the remedial action objectives specified in the ROD.

Field inspections will be conducted at least annually at SWMU 59 to verify that the land use remains industrial and that uses of the area are consistent with the assumed land use (i.e., ensure that recreational and/or residential land use is prevented). Refer to the checklist in Appendix B.

These inspections will be documented and recorded in the Paducah Project Document Control Center and submitted to the post-decision Administrative Record. As stated in Section 2.10 of the PGDP LUCAP, the PGDP Site Manager will certify annually that the DOE is implementing the LUCIP and will identify any noncompliance with this LUCIP and describe steps taken to address any such noncompliance(s). This certification will be made in the Annual Site Management Plan Update. The annual certification also will serve to notify the EPA and Kentucky Natural Resources and Environmental Cabinet of any change in designated officials or any changes of land use that are not considered major, as described in Section 2.8 of the LUCAP (DOE 2000a).

If it is determined that the use of SWMU 59 is inconsistent with the assumed land uses, according to Section 2.8 of the PGDP LUCAP, "then the DOE will notify the EPA and Commonwealth of Kentucky as soon as practicable. This notification will provide all pertinent information as to the nature and extent of the activity and describe any measures implemented or to be implemented (including a timetable for future completion) to reduce or prevent human health or ecological impacts resulting from the activity" (DOE 2000a).

8. REFERENCES

- DOE (U.S. Department of Energy) 2000a. *Land Use Control Assurance Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1799&D2, January.
- DOE 2000b. *Site Management Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, Annual Revision – FY 2001, DOE/OR/07-1849&D1, November.
- DOE 2002. *Record of Decision for Interim Remedial Action at the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1948&D2, August.
- EPA (U.S. Environmental Protection Agency) 2000. *Memorandum of Agreement for Implementation of a Land Use Control Assurance Plan (LUCAP) for the United States Department of Energy Paducah Gaseous Diffusion Plant*. Signed March 30.

Appendix A

EXAMPLE OF LANGUAGE IN PROPERTY NOTICE

The purpose of this document is to give public notice that past releases of contaminants on certain areas of property owned by the U.S. Department of Energy (DOE) within Sections 1 and 2 of the North-South Diversion Ditch (NSDD) portion of the Paducah Gaseous Diffusion Plant (PGDP) in McCracken County in the Commonwealth of Kentucky have required DOE to undertake cleanup actions in these areas; and that, as part of these cleanup actions and to protect public health and the environment from potentially harmful exposures to the contaminants, DOE has established land use controls (LUCs) on activities in these areas.

Soils and sediments in Sections 1 and 2 of the NSDD at PGDP contain contaminants of concern that potentially could cause a threat to human health and the environment. The predominant contaminants are the following:

- metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, uranium, and vanadium);
- organic compounds [polychlorinated biphenyls (total) and polycyclic aromatic hydrocarbons (total)]; and
- radionuclides (americium-241, cesium-137, neptunium-237, plutonium-239, technetium-99, thorium-230, uranium-234, uranium-235, and uranium-238).

Attachments 1, 2, and 3 to this notice are maps showing the major areas of concern as depicted in Figures 2.5, 2.6, and 2.7 of the *Record of Decision for Interim Action at the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1948&D2, August 2002. [Note: Attachments 1, 2, and 3 are not enclosed with this sample language text.] This Record of Decision (ROD) is a document issued by DOE, with approval from the U.S. Environmental Protection Agency (EPA) and concurrence from the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC), which specifies actions DOE expects to take to remediate contamination within the areas of concern in accordance with the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, 42 USC Section 9601 *et seq.*, and other laws and regulations.

More detailed information about the contamination in the NSDD portion of PGDP and about DOE's cleanup activities may be found in this ROD document and in additional CERCLA documents relating to selection, design, and implementation of the actions specified in the ROD. These documents are available for public inspection during regular business hours at the Environmental Information Center in the Barkley Centre, Paducah, Kentucky, and at the Paducah Public Library

With the approval from EPA and concurrence from KNREPC, DOE selected the remedial actions specified in this ROD to achieve cleanup goals based on DOE's assumption that future uses of the property would be limited. DOE has classified Sections 1 and 2 of the NSDD as a controlled industrial zone: top 0.5 feet of surface soil safe for industrial use; excavations below 0.5 feet restricted by DOE; no residential or recreational use.

In the period before the NSDD cleanup activities are completed, the above-mentioned land uses will be appropriate for all areas of Sections 1 and 2 of the NSDD. Additional use controls to ensure continued protection of site workers and others present at the site will not be necessary.

Because of the current contamination, DOE maintains various restrictions on the uses of the property including restrictions on uses of groundwater, surface water, and surface and subsurface soil. Land use controls (signs, surveillance patrols, and the PGDP trenching, excavation, and penetration permit

program) currently are utilized to protect workers and the public from risks associated with contaminated areas; and other controls may be implemented as necessary. Any person who is unsure whether a proposed use has been authorized by DOE in the areas covered by the ROD should contact Mr. W. Don Seaborg, Site Manager, U.S. Department of Energy, Paducah Site Office, P.O. Box 1410, Paducah, Kentucky 42001, (270) 441-6806, prior to proceeding with such use.

Similar facts may be contained in the DOE Realty Office's Land Notation.

Appendix B

NSDD LAND USE CONTROLS CHECKLISTS

**NSDD LAND USE CONTROLS CHECKLIST – SECTIONS
INSIDE THE SECURITY-FENCED AREA**

Inspector(s):
Date:

Inspector: Check "NA" or "Sat" to indicate acceptable compliance. Check "Unsat" to indicate that one or more unsatisfactory conditions exists and list any deficiencies under "Deficient Conditions."

LAND USE CHANGES (Industrial Land Use Assumed)	NA	Sat	Unsat	Deficient Condition
Visual check for changes to land use (e.g., bike trails or hunting grounds).				
FENCES	NA	Sat	Unsat	Deficient Condition
No holes in fences greater than approximately one square foot in area.				
Fencing is properly secured to the fence posts.				
Poles are securely fastened in the ground such that the integrity of the fence is not threatened, and access over or under the fence is not facilitated.				
Gates required for security are operable, close securely, and open far enough to provide vehicular or pedestrian access as appropriate.				
Required locks are present and operable.				
Appropriate signs are present on fence and/or gates and are securely fastened and legible.				
Vegetation does not impede operation of gates or visual examination of the site, if required.				
VEGETATION	NA	Sat	Unsat	Deficient Condition
Length of grass/vegetation does not prevent adequate observation of surface conditions.				
Vegetation does not prevent access to site area where required.				
Length/condition of grass/vegetation does not present an obvious eyesore considering the visual exposure of the site to the general public or site workers.				
Tree trunks, roots, or branches do not threaten fences, roads, or structures and do not present a safety hazard to individuals onsite.				
No evidence exists of unnatural staining of vegetation.				
No evidence exists of unnatural discoloration or withering of vegetation.				
DRAINAGE	NA	Sat	Unsat	Deficient Condition
Process waters are rerouted to C-616 Treatment Facility.				
Culverts or drainpipes properly sealed to prevent off-site drainage.				
Visual inspection of surge basin (e.g., check for erosion of basin walls, ensure that surge basin inlets and outlets are free of debris).				
Drainage of the site is adequate, with no signs of excessive or extended pooling of stagnant water.				

**NSDD LAND USE CONTROLS CHECKLIST – SECTIONS
INSIDE THE SECURITY-FENCED AREA**

<u>SURFACE CONDITIONS</u>	NA	Sat	Unsat	Deficient Condition
Cover maintains its integrity.				
No signs of serious erosion exist that could threaten the integrity of the site surface.				
No erosion channels exist with depth such that routine maintenance of the site cannot be safely performed.				
<u>SIGNS</u>	NA	Sat	Unsat	Deficient Condition
All required land use control signs are present.				
Procedure numbers on signs are up-to-date and are still in existence.				
Signs are securely fastened to permanent fixture (e.g., post, fence, structure, tree).				
Signs are legible and all required information is complete and accurate (e.g., site ownership and point of contact).				
<u>REVIEWS</u>	NA	Sat	Unsat	Deficient Condition
Annual Review completed Date:				
Five-Year Review completed Date:				
Ensure Property Record Actions are recorded at County Court Clerk's office and are up-to-date.				
<u>ADMINISTRATION CONTROLS</u>	NA	Sat	Unsat	Deficient Condition
A complete review of the Excavation/Penetration Permits Programs has taken place and it is current, and the area inside the security-fenced area is in compliance.				
<u>SITE SECURITY</u>	NA	Sat	Unsat	Deficient Condition
If access control is required for the site, the proper controls are in effect at the time of the assessment (e.g., locked gate).				
If required, all persons on the site during the assessment have the proper security clearance for access.				

Comment Response Summary

for the

*Land Use Control Implementation Plan for the North-South Diversion Ditch
at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
(DOE/OR/07-1942&D2 issued November 26, 2002)*



Prepared for
U.S. Department of Energy
Office of Environmental Management

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COMMENT RESPONSE SUMMARY

for the
*Land Use Control Implementation Plan for the North-South Diversion Ditch at the
 Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
 (DOE/OR/07-1949&D2 issued November 26, 2002)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
1.	General	U.S. Environmental Protection Agency (EPA): (1/24/03) General G1 "EPA has previously provided the DOE with comments on this document (January 28, 2002, letter from J. Crane to W. Seaborg and G. Dover, pp. 11-12) which were not incorporated in this revised draft. As such, EPA does not consider this document as draft final and comments (many being the same as provided on an earlier date) must be addressed to bring this document to a level of acceptability."	EPA's comments of January 28, 2002, pertained to the December 2001 D1 LUCIP that addressed land use controls for all sections of the North-South Diversion Ditch. Responses to these comments, as well as responses to comments received from the Radiation Health and Toxic Agents Branch and the Kentucky Department for Fish and Wildlife Resources on the December 2001 D1 LUCIP, were incorporated, as appropriate, into the October 2002 D2 LUCIP for Sections 1 and 2. Primary sections of the document that were modified in response to comments were Section 6.2, Section 6.3, and Table 3. Comments pertaining to sections 3, 4, and 5 of the NSDD were not addressed due to deferral to a later date of remedial action in these sections. Text in the D2/R1 version of the document has been further revised for clarification based on the following comments.

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COMMENT RESPONSE SUMMARY

for the
*Land Use Control Implementation Plan for the North-South Diversion Ditch at the
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 (DOE/OR/07-1949&D2 issued November 26, 2002) (continued)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
2.	General	EPA: (1/24/03) G2 "The LUCIP must provide sufficient design details about each type of LUC selected in the ROD to facilitate meaningful periodic monitoring to determine whether the LUC has been fully implemented and maintained. For example, specific 'access controls' should be identified, together with details about the number and location of each such control. To the extent that existing access controls (e.g., previously installed signs and fences) are being relied upon to achieve the remedy's LUC objectives, the LUCIP should also specify details about their locations and quantity."	Section 6.3 describes the specific access controls that will be used to control access to Sections 1 and 2 of the NSDD.
3.	General	EPA: (1/24/03) G3 "The 'NSDD On-Site Land Use Controls Checklist' included in the LUCIP has the potential to be a useful tool for periodic inspection, and the level of LUC design detail included in the LUCIP should be sufficient to guide the inspector in determining whether the checklist items being inspected (e.g., whether 'All required land use control signs are present') is 'Satisfactory' or 'Unsatisfactory.'"	Agree. The level of LUC design detail included in the LUCIP is sufficient to provide the LUC inspector with all necessary information.

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for the
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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
4.	General	<p>EPA: (1/24/03) G4</p> <p>"The LUCIP must provide a more comprehensive description of how the existing Excavation/ Penetration (E/P) Permits Program will be adapted to ensure that the integrity of LUCs imposed pursuant to the ROD are not compromised by unauthorized activities in any area subject to LUCs. Specific information indicating how the E/P Permits Program will be administered to achieve LUC objectives should be provided in this LUCIP, including:</p> <ul style="list-style-type: none"> i. Identification of E/P Permits Program authorizing official(s) responsible for permitting the activity in an area subject to LUCs; ii. The means to ensure that E/P Permits Program authorizing official(s) have accurate, current knowledge of each LUC required and of LUC objectives for areas where limitations on use must be maintained to insure protectiveness; 	<p>Section 6.2, Excavation/Penetration Permits Program, has been expanded to clarify implementation of the E/P Permits Program. Also, please see responses to individual items below.</p> <p>As stated in Section 6.2, DOE and its contractors administer the E/P Permits at PGDP. Currently TetraTech is the subcontractor responsible for preparation of E/P Permits; however, they are not specifically named in the LUCIP since E/P Permit responsibility could, at some future time, be reassigned.</p> <p>When requesting an E/P permit, the requester must, according to current procedures, consult various organizations including Civil, Electrical, and Construction Engineering; Industrial Hygiene and Safety; Environmental Compliance/Waste Management; and Health Physics to gather pertinent information about the excavation/penetration site. These organizations will perform a walk down of the intended work area, as necessary, to review existing utilities and postings (i.e., access controls). Permits will not be approved until this information has been acquired. This information has been added to Section 6.2.</p>

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for the
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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
4. (cont'd)	General	iii. The means to ensure the E/P Permits Program has an accurate and updated site-wide designation of all land areas subject to LUCs (e.g., GIS map project); iv. Training and outreach activities to ensure awareness of and compliance with E/P Permits Program requirements and procedures by the entire PGDP community -- including employees, contractors, and visitors (whether or not these persons are connected to environmental remediation activities) seeking access to an area subject to LUCs; and, v. Requirements for the E/P Permits Program authorizing official(s) to inform the DOE Site Manager of any unexpected conditions during a permitted activity that could affect the integrity of any LUC."	Walk downs of the intended work areas are conducted prior to the issuance of an E/P permit. Current access control postings and requirements of the proposed work area are reviewed during these walk downs. Formal authorization (i.e., internal permits/approvals) is required before any intrusive activities may be performed at PGDP, whether in an area subject to LUCs or not. Training on the E/P Permits Program is required for all personnel who will perform the trenching, excavation, or penetration activities. As stated in Section 6.2, if unexpected or off-normal conditions arise during a permitted activity, the permit requestor is required to file an occurrence report documenting the occurrence.
5.	Sect. 1; Page 1	EPA: (1/24/03) Specific S1 "In the third paragraph of this section, replace the entire third sentence (beginning 'Upon approval, this LUCIP will be appended') with the following language (see NSDD ROD, p. 18): Upon final approval, this LUCIP will be appended to and become part of the RD/RA Work Plan and the LUCAP. The LUCIP will establish LUC implementation and maintenance requirements enforceable under CERCLA and the FFA, including enforceable requirements for regular periodic monitoring of each LUC after its implementation."	Agree. Text has been revised as requested.

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for the
*Land Use Control Implementation Plan for the North-South Diversion Ditch at the
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 (DOE/OR/07-1949&D2 issued November 26, 2002) (continued)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
6.	Sect. 2; Page 3	EPA: (1/24/03) S2 "In the final paragraph of this section, change 'the LUC objectives are presented in Section 6' to 'the LUC objectives are presented in Section 5.'"	Agree. Text has been corrected as suggested.
7.	Sect. 6; Page 5	EPA: (1/24/03) S3 "The entire initial sentence of this section's second paragraph (beginning 'The three LUCs are not mutually exclusive ...' should be replaced by: 'All three of these LUCs will be implemented in both Section 1 and Section 2 of the NSDD.'"	Agree. Text has been revised as suggested.
8.	Sect. 6.1; Page 5	EPA: (1/24/03) S4 "A cross-reference should be included to the LUCIP appendix containing specific property notice language. (See 'Appendix (New)' specific comment below.)"	Agree. Specific property notice language has been attached as Appendix A. A reference to this appendix has been added to Sect. 6.1 as requested.

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for the

*Land Use Control Implementation Plan for the North-South Diversion Ditch at the
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(DOE/OR/07-1949&D2 issued November 26, 2002) (continued)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
9.	Page 6; Table 3	<p>EPA: (1/24/03) S5</p> <p>“– In the ‘Implementation’ Column relating to ‘Property Record Actions Notices,’ the words ‘as specified in the LUCIP’ should be replaced by specific information (in this table or elsewhere in the LUCIP) about when the notice will be recorded.</p> <p>– In the ‘Implementation’ Column relating to ‘Property Record Actions Restrictions,’ the words ‘as specified in the LUCIP’ should be eliminated.”</p>	<p>A specific date for DOE to record Property Record Action Notices has not been added to the LUCIP and the phrase ‘as specified in the LUCIP’ has been deleted. However, as stated in Table 3 of the LUCIP, DOE will record Property Record Action Notices in accordance with state law at the County Court Clerk’s office as soon as practicable after signing of the ROD.</p> <p>Agree. Referenced phrase has been deleted.</p>
10.	Sect. 6.2; Page 8	<p>EPA: (1/24/03) S6</p> <p>“EPA agrees with DOE’s statement that its permit program will be the ‘primary mechanism’ to control worker exposures, and believes this program can provide an efficient and reliable LUC to maintain the protectiveness of this and future response actions at PGDP. To be fully effective in this function, however, the program should be examined to insure that its existing practices and information systems are sufficient to fulfill this environmental protection role. This section should be expanded to address the issues outlined in General Comment C above.”</p>	<p>Agree. Please see response to Comment #4.</p>

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COMMENT RESPONSE SUMMARY for the <i>Land Use Control Implementation Plan for the North-South Diversion Ditch at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky</i> (DOE/OR/07-1949&D2 issued November 26, 2002) (continued)			
Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
11.	Sect. 6.3; Page 9	EPA: (1/24/03) S7 "In the initial sentence of the second paragraph, the word 'prohibited' should be replaced by 'restricted' (or 'severely restricted')."	Agree. The word "prohibited" has been replaced with the word "restricted."
12.	App. A	EPA: (1/24/03) S8 "Under 'Administrative Controls' on page A-3, include checklist entries for 1) completeness and accuracy of information about residual contamination being used by the Excavation/ Penetration Permits Program and 2) awareness of individuals authorizing such E/P permits of LUC requirements and objectives. See General Comment B above."	The checklist entry originally included for Administration Controls states that a complete review of the Excavation/Penetration Permits Program has been performed. By signing this checklist, a reviewer is confirming that a complete review of the program, including a review of both specific items referenced in this comment, has been performed and that the program is current and adequate. Separate checklist entries for the two referenced items are not necessary.

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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
13.	App. (New)	<p>EPA: (1/24/03) S9</p> <p>“In response to EPA’s comment (on the D0 version of this document) that the specific language for the property notice should be included as a new Appendix in this LUCIP, DOE indicated that such specific language would be included after completion of work by the DOE, consistent with specific language used at the Oak Ridge Site. (DOE Comment Response Summary (DOE/OR/07-1949&D0/R1), page 3, Response 6.) Agreement on that specific notice language (relating to the Oak Ridge Reservation Bethel Valley ROD) was reached some time ago, and includes: a discussion of the purpose of the notice; a brief summary of the main contaminants of concern along with a map showing the major areas of concern; an explanation of DOE’s assumptions of future use of the property and of the land use controls; and identification of a contact person in the EM program.</p> <p>The approved Bethel Valley notice is reproduced below, and this should be used as a template for DOE’s inclusion of specific notice language for the NSDD Sections 1 and 2 in a new appendix to this LUCIP:</p>	<p>Agree. An example of the language that would be included in a property notice has been included as Appendix A. Also, please see response to Comment #8.</p>

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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
13. (cont'd)		<p style="text-align: center;">NOTICE OF CONTAMINATION AND FUTURE USE LIMITATIONS OF CERTAIN AREAS WITHIN THE BETHAL VALLEY PORTION OF UNITED STATES DEPARTMENT OF ENERGY'S OAK RIDGE RESERVATION</p> <p>The purpose of this document is to give public notice that past releases of contaminants on certain areas of property owned by the United States Department of Energy (DOE) within the Bethel Valley portion of Oak Ridge Reservation (ORR) in Roane and Anderson Counties in the State of Tennessee have required DOE to undertake cleanup actions in these areas, and that, as part of these cleanup actions and to protect public health and the environment from potentially harmful exposures to the contaminants, DOE has established land use controls on activities in these areas.</p> <p>Soils, sediments, groundwater, and surface water in Bethel Valley at the Oak Ridge National Laboratory contain contaminants of concern that could potentially cause a threat to human health and the environment. In addition, certain buildings, tanks, and pipelines in Bethal Valley are contaminated and may, in the absence of appropriate controls, pose a risk to workers or others exposed to this contamination. The predominant contaminants are:</p>	

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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
13. (cont'd)		<ul style="list-style-type: none"> • in soil: Cs137, Co60, Th228, Ra228 • in surface water: mercury • in sediment: Cs37, silver, zinc, cadmium, PCBs, and PAHs • in groundwater: in groundwater: Sr90, Ra228, H3, arsenic, antimony, manganese, TCE, and vinyl chloride. <p>Attachment 1 to this notice is a map showing the major areas of concern as depicted in Figure 2.3 of the <i>Record of Decision for Interim Actions in Bethel Valley, Oak Ridge Tennessee</i>, [insert document identification information/date of issuance]. This Record of Decision (ROD) is a document issued by DOE, with the concurrence of the United States Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC), which specifies actions DOE expects to take to remediate contamination within the areas of concern in accordance with the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. Section 9601 <i>et seq.</i>, and other laws and regulations.</p> <p>More detailed information about the contamination in the Bethel Valley portion of ORR and about DOE's cleanup activities may be found in this ROD document, and in additional CERCLA documents relating to selection, design, and implementation of the actions specified in the ROD. These documents are available for public inspection during regular business hours at [Insert</p>	

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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
13. (cont'd)		<p>address of place where public may access documents; additionally, insert internet address where relevant information available, if applicable.]</p> <p>With the concurrence of the EPA and the TDEC, DOE selected the remedial actions specified in this ROD, to achieve cleanup goals based on DOE's assumption that future uses of the property would be limited. DOE has classified its Bethel Valley property into four zones, on the basis of different limitations DOE has assumed for the future use of each zone. These zones are:</p> <ul style="list-style-type: none"> • controlled industrial zone – top two feet of surface soil safe for industrial use; excavations below two feet restricted by DOE; no residential or recreational use; • unrestricted industrial zone – top ten feet of soil safe for industrial use; excavations below ten feet restricted by DOE; no residential or recreational use; • recreational zone – safe for recreational or industrial use; no residential use; and • unrestricted zone – no restrictions on use. <p>Attachment 2 to this Notice shows the location of each of these four zones, as depicted in Figure 2.18 of the <i>Record of Decision for Interim Actions in Bethel Valley, Oak Ridge Tennessee</i>, [insert document identification information/date of issuance].</p> <p>As of the time the ROD was issued on [insert date] DOE estimated that all cleanup activities specified in the ROD would not be completed for several years. In the period before these cleanup activities are completed, the above-mentioned limited</p>	

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Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
13. (cont'd)		<p>land uses may not be appropriate for certain areas, and additional use controls to ensure continued protection of site workers and others present at the site may be necessary.</p> <p>Because of the current contamination, DOE maintains various restrictions on the uses of the property including restrictions on uses of groundwater, surface water, and surface and subsurface soil. Land use controls (signs, surveillance patrols, and the ORR excavation/penetration administrative permit program) are currently utilized to protect workers and the public from risks associated with contaminated areas, and other controls may be implemented as necessary. Any person who is unsure whether a proposed use has been authorized by DOE in the areas covered by the ROD should contact [insert specific PGDP environmental program contact – by position, address, and telephone number] prior to proceeding with such use.</p> <p>[DOE note – Real Estate may require some additional text, including but not limited to text: identifying the tract of land by Tract Number; referencing original title documents; describing the location and size of the land (not a survey).]</p>	
14.	General	<p>Kentucky Department for Environmental Protection, Division of Waste Management (KDWM) (1/24/03): General G1</p> <p>“Provide a date certain for recording the property notices and the property restrictions.”</p>	Please see response to Comment #9.

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 (DOE/OR/07-1949&D2 issued November 26, 2002) (continued)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
15.	General	KDWM (1/24/03): G2 "Provide a draft of the restrictive covenant language to Kentucky/EPA, as an attachment to the LUCIP, so that we may review it for adequacy."	Agree. An example of the language that would be included in a property notice has been included as Appendix A.
16.	General	KDWM (1/24/03): G3 "Provide a narrative outline of the Excavation/Penetrations permits program to Kentucky/EPA, as an attachment to the LUCIP."	A narrative outline of the Excavation/Penetration Permits Program has not been attached; however, Section 6.2, Excavation/Penetration Permits Program, has been expanded to clarify implementation of this program.
17.	General	KDWM (1/24/03): G4 "Revise the text throughout to indicate that the LUCs shall remain in place until Kentucky/EPA approves DOE's request to modify/delete LUC. This is stated as such under access controls and in Table 3 but not in the other appropriate sections of the main text."	Text has been revised to state that LUCs will be implemented for as long as deemed necessary. DOE decisions concerning the need for specific LUCs will be based upon the appropriate state and federal regulations.

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COMMENT RESPONSE SUMMARY

for the
*Land Use Control Implementation Plan for the North-South Diversion Ditch at the
Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
(DOE/OR/07-1949&D2 issued November 26, 2002) (continued)

Comment Number	Sect. Page/Para.	Reviewer and Comment	Response
18.	General	KDWM (1/24/03): G5 "Revise the LUCIP to indicate that if DOE ever transfers the property, the following will occur: <ul style="list-style-type: none"> • DOE will remain responsible for maintaining the LUCs and complying with the requirements of the LUCIP/LUCAP. • DOE will ensure that other mechanisms are in place to meet the objectives of internal controls and internal permit programs, used to implement the LUCs, upon transfer of the property. 	As stated in the LUCIP (Section 6.1), if the property on which the NSDD is located ever is transferred (i.e., sold, leased, donated), then DOE will ensure that legally enforceable use restrictions are in place to prohibit or otherwise restrict transferees (i.e., land owners, leasees, users) from conducting activities that are not compatible with the specified land use. These restrictions will be prepared in accordance with CERCLA and applicable laws.
19.	Sect. 5; Land Use Controls Objectives	KDWM (1/24/03): Specific S1 "Include as an objective – 'restricting land use to ensure protection of human health and the environment.'" 	Restriction of land use is addressed by the 3 rd LUC objective listed. This objective refers to the preclusion of uses of the area that are inconsistent with the assumed land use. The phrase "to protect human health and the environment" has been appended to this objective.
20.	Table 3	KDWM (1/24/03): S2 "Revise the 'Purposes of Control' column to state the specific restrictive covenants needed, including a restriction on surface disturbance of the cap/cover." 	Comment unclear. Please clarify.

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