received
6-9-03 CB

Kentucky Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division of Waste Management

RECORD COPY
41

SOLID WASTE DISPOSAL FACILITY PERMIT

Permittee:

U. S. DEPARTMENT OF ENERGY
Oak Ridge Operations
Paducah Gaseous Diffusion Plant
P.O. Box E, Room G 114
Oak Ridge, Tennessee 37830

Facility:

U.S. DEPARTMENT OF ENERGY
Paducah Gaseous Diffusion Plant
5600 Hobbs Road
Paducah, Kentucky 42001

The Division of Waste Management hereby grants the above-named facility a permit to engage in the activity specified below. This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other state and local agencies.

--See Page 1-3

No deviation from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and bond amount specified below is hereby acknowledged.

PERMIT TYPE:	Operation (Closure Only)	PERMIT NUMBER:	073-00014
TYPE OF ACTIVITY:	Residential Landfill (Closure)	FINDS NUMBER:	KY8-890-008-982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	NA		
INSTRUMENT NUMBER:	NA		
AMOUNT:	NA		
ACRES:			
WASTE DISPOSAL AREA:	3.9 Acres		
PERMIT AREA:	20.2		
PERMIT FEE:	NA		
EFFECTIVE DATE:	April 14, 1988		
EXPIRATION DATE:	November 1, 2003		

Issued this 14th day of March 2002

Robert H. Daniell, Director

Robert W. Logan, Commissioner

I-02000-0302

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall complete closure activities in accordance with the environmental performance standards of 401 KAR 47:030, and the plans and narratives received on November 5, 1990, June 28, 1991, November 5, 1990, and June 3, 1993, and plans approved on April 9, 1981, July 3, 1989, April 25, 2001 and, March 14, 2002.

2) The Permittee shall comply with 401 KAR 47:120 Section 1 relating to conditions applicable to all permits.

3) The permittee shall maintain the final cover to prevent ponding of water and to provide for positive drainage.

4) The Permittee shall use agricultural methods to control vegetative growth to prevent weeds, prevent tree and woody plant growth, and prevent roots from entering the low permeability layer.

5) The Permittee shall inspect and maintain, as required, all site diversion ditches after every storm event greater than 0.5-inch.

6) The permittee shall provide a notice to the deed as required by 401 KAR 48:090 Section 13(4).

Groundwater Conditions

1) The permittee shall comply with all requirements of 401 KAR 48:300 except 401 KAR 48:300 Section 8. The requirements of 401 KAR 48:300 Section 8 shall not apply to this landfill. The permittee shall perform groundwater contamination assessment and corrective action for this landfill in accordance with the provisions of 401 KAR 34:060.

2) The permittee shall comply with its approved groundwater monitoring plan. At each approved groundwater monitoring location, the permittee shall monitor quarterly for the complete list of parameters listed in 401 KAR 48:300 Section 11(3), plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Iodine-131, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, Potassium, Radium, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Tritium, Uranium (total). Metals samples shall not be filtered.

3) At each approved groundwater monitoring location, the permittee shall monitor annually for PCBs.

4) The permittee shall monitor the leachate annually for the parameters listed in Groundwater Conditions 2 above.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

5) Groundwater and surface water samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule.

Sample to be Collected During the :	Results Due to the Division of Waste Management by:
First Quarter	May 30
Second Quarter	Augurst 30
Third Quarter	November 30
Fourth Quarter	February 28

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

July 23, 2001

Mr. Don Seaborg, Site Manager
U.S. Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001-1410

CERTIFIED MAIL #7000 1670 0000 7826 1104

RE: *Request for Modification of the C-746-S Residential (073-00014) and C-746-T Inert Landfill (073-00015) Permits Dated April 25, 2001*
U.S. DOE - Paducah Gaseous Diffusion Plant
C-746-S Landfill
Permit Number: 073-00014
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has reviewed your May 23, 2001 *Request for Modification of the C-746-S Residential (073-00014) and C-746-T Inert Landfill (073-00015) Permits Dated April 25, 2001.* Groundwater Condition 5 of the C-746-S (073-00014) Landfill permit has been added in accordance with your request.

The revised permit for your landfill is enclosed. You should carefully review the permit and the approved applications. In the event that you disagree with the terms of these documents, you must notify this office in writing within thirty (30) days of the receipt of this letter. Unless this permit is modified in accordance with 401 KAR 47:130, you are expected to comply with the terms of all applicable laws, regulations, the approved applications, and the permit. You are advised that you have the right to file petition for an administrative hearing pursuant to KRS 224.10-420(2).

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Should you have any questions regarding this matter, please contact R. Todd Hendricks at (502) 564-2225, ext. 270.

Sincerely,

R. D. Gruzesky

Ronald D. Gruzesky, P.E., Manager
Solid Waste Branch
Division of Waste Management

RDG/RTH/rth

Attachments

c: Gary Vander Boegh, Landfill Manager
Mike Welch
Paducah Regional Office
Madisonville Regional Office
West File
Main File
Reading File

JAMES E. BICKFORD
SECRETARY

in - pls copy Lanny G. Patrick W.

Compliance: what are implications? who has lead?

PAUL E. PATTON
GOVERNOR

Larry Long
John M.
Return

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

cc: T. Wheeler
C. Jones
M. Gage
L. Young
S. Young
T. Brindley CD
B. Phillips SAI
B. Clayton SAIC
J. Ballard SAIC
R. Miller GEO
D. Hutcheson L
J. Farrell

March 14, 2002

Mr. Don Seaborg, Site Manager
U.S. Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001-1410

CERTIFIED MAIL #7000 1670 0000 7828 1263

RE: Paducah Gaseous Diffusion Plant 073-00014 (C-746-S) Residential Landfill
Approval of Groundwater Monitoring Plan
Pending Application # 073-00014 LR1 MOGW1
U.S. DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has approved your *Groundwater Monitoring Plan for the 073-00014 (C-746-S) Residential Landfill, Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (received February 12, 2002).

The groundwater contamination assessment and corrective action provisions of 401 KAR 48:300 remain in effect for this landfill at this time. However, as soon as the appropriate modifications are made to the relevant Hazardous Waste permit, the Solid Waste permit will be reissued in accordance with the modified Hazardous Waste permit. At that time, 401 KAR 48:300 Section 8 will not apply to this facility. Instead, the permittee will be required to perform groundwater contamination assessment and corrective action in accordance with the modified Hazardous Waste permit and 401 KAR 34:060, Section 12.

The revised permit for your landfill is enclosed. You should carefully review the permit and the approved application. In the event that you disagree with the terms of these documents, you must notify this office in writing within thirty (30) days of the receipt of this letter. Unless this permit is modified in accordance with 401 KAR 47:130, you are expected to comply with the terms of all applicable laws,

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regulations, the approved application, and the landfill permit. You are advised that you have the right to file petition for an administrative hearing pursuant to KRS 224.10-420(2).

Should you have any questions regarding this matter, please contact R. Todd Hendricks at (502) 564-2225, ext. 270.

Sincerely,

Robert H. Daniell, Director
Division of Waste Management

RHD/RTH/rth

Attachments

c: Gary Vander Boegh, Landfill Manager
Mike Welch
Paducah Regional Office
Madisonville Regional Office
West File
Main File
Reading File

Kentucky Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division of Waste Management

SOLID WASTE DISPOSAL FACILITY PERMIT

Permittee:

U. S. DEPARTMENT OF ENERGY
Oak Ridge Operations
Paducah Gaseous Diffusion Plant
P.O. Box 1410
Paducah, Kentucky 42002-1410

Facility:

U.S. DEPARTMENT OF ENERGY
Paducah Gaseous Diffusion Plant
5600 Hobbs Road
Paducah, Kentucky 42001

The Division of Waste Management hereby grants the above-named facility a permit to engage in the activity specified below. This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other state and local agencies.

--See Page 2--

No deviation from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and bond amount specified below is hereby acknowledged.

PERMIT TYPE:	Operation (Closure Only)	PERMIT NUMBER:	073-00014
TYPE OF ACTIVITY:	Residential Landfill (Closure)	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	NA		
INSTRUMENT NUMBER:	NA		
AMOUNT:	NA		
ACRES:			
WASTE DISPOSAL AREA:	3.9 Acres		
PERMIT AREA:	20.2		
PERMIT FEE:	NA		
EFFECTIVE DATE:	April 14, 1988		
EXPIRATION DATE:	November 1, 2003		

Issued this 23rd day of July 2001

Robert H. Daniell, Director

Robert W. Logan, Commissioner

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall complete closure activities in accordance with the environmental performance standards of 401 KAR 47:030, and the plans and narratives received on November 5, 1990, June 28, 1991, November 5, 1990, and June 3, 1993, and plans approved on April 9, 1981, July 3, 1989, and April 25, 2001.

2) No additional waste shall be placed in this landfill.

3) The Permittee shall comply with 401 KAR 47:120 Section 1 relating to conditions applicable to all permits.

4) The permittee shall maintain the final cover to prevent ponding of water and to provide for positive drainage.

5) The Permittee shall use agricultural methods to control vegetative growth to prevent weeds, prevent tree and woody plant growth, and prevent roots from entering the low permeability layer.

6) The Permittee shall inspect and maintain, as required, all site diversion ditches after every storm event greater than 0.5-inch.

7) The permittee shall provide a notice to the deed as required by 401 KAR 48:090 Section 13(4).

Groundwater Conditions

1) The permittee shall comply with all requirements of 401 KAR 48:300.

2) At each approved groundwater monitoring location, the permittee shall monitor quarterly for the complete list of parameters listed in 401 KAR 48:300 Section 11(3), plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Iodine-131, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, Potassium, Radium, Redox, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Tritium, Uranium (total). Metals samples shall not be filtered.

3) At each approved groundwater monitoring location, the permittee shall monitor annually for PCBs.

4) The permittee shall monitor the leachate annually for the parameters listed in Groundwater Conditions 2 above

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

5) Groundwater and surface water samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule:

Sample to be Collected During the:	Results Due to the Division of Waste Management by:
First Quarter	May 30
Second Quarter	August 30
Third Quarter	November 30
Fourth Quarter	February 28

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

April 25, 2001

Mr. Don Seaborg, Site Manager
U.S. Department of Energy
Paducah Site Office
PO Box 1410
Paducah, Kentucky 42001-1410

CERTIFIED MAIL #7099 3220 0008 0357 7392

RE: Paducah Gaseous Diffusion Plant 073-00014 (C-746-S) Landfill
Renewal of Permit
Pending Applications 073-00014 LR1 PR2
U.S. DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has approved your permit renewal application (received May 20, 1998) for the 073-00014 (C-746-S) Residential Landfill at the Paducah Gaseous Diffusion Plant.

The groundwater contamination assessment and corrective action provisions of 401 KAR 48:300 remain in effect for this landfill at this time. However, as soon as the appropriate modifications are made to the relevant Hazardous Waste permit, the Solid Waste permit will be reissued in accordance with the modified Hazardous Waste permit. At that time, 401 KAR 48:300 Section 8 will not apply to this facility. Instead, the permittee will be required to perform groundwater contamination assessment and corrective action in accordance with the modified Hazardous Waste permit and 401 KAR 34:060, Section 12.

The revised permit for your landfill is enclosed. You should carefully review the permit and the approved application. In the event that you disagree with the terms of these documents, you must notify this office in writing within thirty (30) days of the receipt of this letter. Unless this permit is modified in accordance with 401 KAR 47:130, you are expected to comply with the terms of all applicable laws, regulations, the approved application, and the permit. You are advised that you have the right to file petition for an administrative hearing pursuant to KRS 224.10-420(2).

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Should you have any questions regarding this matter, please contact R. Todd Hendricks at (502) 564-2225, ext. 270.

Sincerely,

R. D. Gruzesky

Ronald D. Gruzesky, P.E., Manager
Solid Waste Branch
Division of Waste Management

RDG/RTH/rth

Attachments

c: Gary Vander Boegh, Landfill Manager
Mike Welch
Paducah Regional Office
Madisonville Regional Office
West File
Main File
Reading File

Kentucky Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division of Waste Management

SOLID WASTE DISPOSAL FACILITY PERMIT

Permittee:

U. S. DEPARTMENT OF ENERGY
Oak Ridge Operations
Paducah Gaseous Diffusion Plant
P.O. Box 1410
Paducah, Kentucky 42002-1410

Facility:

U.S. DEPARTMENT OF ENERGY
Paducah Gaseous Diffusion Plant
5600 Hobbs Road
Paducah, Kentucky 42001

The Division of Waste Management hereby grants the above-named facility a permit to engage in the activity specified below. This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other state and local agencies.

--See Page 2--

No deviation from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and bond amount specified below is hereby acknowledged.

PERMIT TYPE:	Operation (Closure Only)	PERMIT NUMBER:	073-00014
TYPE OF ACTIVITY:	Residential Landfill (Closure)	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	NA		
INSTRUMENT NUMBER:	NA		
AMOUNT:	NA		
ACRES:			
WASTE DISPOSAL AREA:	3.9 Acres		
PERMIT AREA:	20.2		
PERMIT FEE:	NA		
EFFECTIVE DATE:	April 14, 1988		
EXPIRATION DATE:	November 1, 2003		

Issued this 25th day of April 2001

Robert H. Daniell. Director

Robert W. Logan, Commissioner

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall complete closure activities in accordance with the environmental performance standards of 401 KAR 47:030, and the plans and narratives received on November 5, 1990, June 28, 1991, November 5, 1990, and June 3, 1993, and plans approved on April 9, 1981, July 3, 1989, and April 25, 2001.

2) No additional waste shall be placed in this landfill.

3) The Permittee shall comply with 401 KAR 47:120 Section 1 relating to conditions applicable to all permits.

4) The permittee shall maintain the final cover to prevent ponding of water and to provide for positive drainage.

5) The Permittee shall use agricultural methods to control vegetative growth to prevent weeds, prevent tree and woody plant growth, and prevent roots from entering the low permeability layer.

6) The Permittee shall inspect and maintain, as required, all site diversion ditches after every storm event greater than 0.5-inch.

7) The permittee shall provide a notice to the deed as required by 401 KAR 48:090 Section 13(4).

Groundwater Conditions

1) The permittee shall comply with all requirements of 401 KAR 48:300.

2) At each approved groundwater monitoring location, the permittee shall monitor quarterly for the complete list of parameters listed in 401 KAR 48:300 Section 11(3), plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Iodine-131, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, Potassium, Radium, Redox, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Tritium, Uranium (total). Metals samples shall not be filtered.

3) At each approved groundwater monitoring location, the permittee shall monitor annually for PCBs.

4) The permittee shall monitor the leachate annually for the parameters listed in Groundwater Conditions 2 above

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

5) Groundwater and surface water samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule:

Sample to be Collected During the:	Results Due to the Division of Waste Management by:
First Quarter	May 30
Second Quarter	August 30
Third Quarter	November 30
Fourth Quarter	February 28

CDM Federal Services Inc.
A subsidiary of CDM Federal Programs Corporation

consulting
engineering
construction
operations

325 Kentucky Avenue
Kevil, KY 42053
Tel: 502 462-3006
Fax: 502 462-3060

December 15, 1999

Mr. Craig S. Jones
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

Subcontract Name:	Environmental Services Subcontract
Subcontract No:	23900-SC-RM056F
Subject:	Resubmittal of Minor Modification for the C-746-S Landfill
Document Control No:	LTR-PAD-EC-SH-99-0227, Change Notice 45

Dear Mr. Jones:

In accordance with the above-referenced subcontract, CDM Federal Services Inc., is resubmitting the enclosed Minor Modification of the C-746-S Landfill and a check in the amount of $1000 for the modification processing fee. Bechtel Jacobs Company LLC comments have been incorporated. Also enclosed for your review are letters from Bechtel Jacobs Company LLC to the Department of Energy (DOE) and from DOE to the Kentucky Department for Environmental Protection (KDEP).

If you have any questions or desire further information, please contact D. F. Hutcheson at 442-2912 or me at 462-3006.

Sincerely,

Tracey Brindley for

Joseph J. Tarantino, P.E.
Project Manager

JJT:seh

Enclosures: 1 Letter from Bechtel Jacobs Company to DOE
2. Draft letter from DOE to KDEP with certification page
3. Work Details (Enclosure I)
4. Figures 1-8
5. Check

cc: T. L. Brindley

cc/encs: R. A. Forsee, LAN-CON
S. E. Hankins, Pro-2-Serve
D. F. Hutcheson, LAN-CON
File-CDM/Kevil-RC

BECHTEL JACOBS
Bechtel Jacobs Company LLC

DOE Contract No. DE-AC05-98OR22700
Job No. 23900
December 16, 1999

Mr. J. Dale Jackson
Acting Paducah Site Manager
Department of Energy
Post Office Box 1410
Paducah, Kentucky 42002-1410

Subject: Minor Modification of the C-746-S Residential Landfill, Paducah Gaseous Diffusion Plant, Permit Number 073-00014, McCracken County, Kentucky

Dear Mr. Jackson:

The Bechtel Jacobs Company LLC is herewith providing to the Department of Energy (DOE) a transmittal cover letter and a revised request for a minor modification of the above-referenced permit to allow investigative sampling of Solid Waste Management Unit 145 and Area P Construction/Demolition Debris Disposal and Spoils Area. An original request was submitted December 6, 1999. This request has been revised to address comments received from the Kentucky Division of Waste Management on the original request and is being resubmitted for approval. Since this request is for a minor modification, a professional engineer's certification is not required.

Please forward this information and the enclosed check to the following by December 17, 1999:

Mr. Ron Gruzesky, Branch Manager
Kentucky Department for Environmental Management
Division of Waste Management
14 Reilly Road
Frankfort, Kentucky 40601

If you should have any questions or should require additional information, please contact C. S. Jones at 5114 or D. R. Guminski at 5051.

Sincerely,

Gordon L. Dover
Paducah Manager of Projects

GLD:sh
LTR-PAD/EC-SH-99-0227

Enclosures:
1. Draft letter from DOE to KDWM with certification page
2. Work Details
3. Work Details (Enclosure I)
4. Figures 1-8
5. Check

c/encs: P. A. Gourieux
C. S. Jones/D. R. Guminski
R. A. Forsee
G. S. Vander Boegh
File-EMEF-DMC-PAD-RC

DRAFT

Date

Mr. Ron Gruzesky, Branch Manager
Division of Waste Management
14 Reilly Road
Frankfort, Kentucky

Dear Mr. Gruzesky:

MINOR MODIFICATION OF THE C-746-S RESIDENTIAL LANDFILL, PADUCAH GASEOUS DIFFUSION PLANT, PERMIT NUMBER 073-00014, MCCRACKEN COUNTY, KENTUCKY

The Department of Energy (DOE) is resubmitting the enclosed request for a minor modification of the above-referenced permit to allow investigative sampling of Solid Waste Management Unit 145 and Area P Construction/Demolition Debris Disposal and Spoils Area. Also enclosed is a check for $1000 for the permit modification fee. The original request was submitted December 6, 1999. This request has been revised to address comments received from the Kentucky Division of Waste Management on the original request and is being resubmitted for approval. Since this request is for a minor modification, a professional engineer's certification is not required.

The area to be investigated is inside the permit boundary of the closed C-746-S Landfill. Concerns related to past disposal practices within the old North/South Diversion Ditch (NSDD) in the early 1980's have prompted the Department of Justice (DOJ) to direct DOE to sample and investigate the characteristics of fill materials placed in the ditch during relocation construction. The old NSDD lies within the permit boundary of the C-746-S Landfill but outside the closed waste cells and surrounding fence. It is proposed that samples will be obtained from up to five test pits or trenches which will be excavated to the bottom of the former ditch within an area which extends along the location of the former ditch for a distance of approximately 1000 feet. Although the actual materials present are unknown, based on present knowledge, these materials may include (1) roofing debris, (2) crushed metal drums, and (3) fly ash. Details of the work are provided in Enclosure I.

This investigation is extremely important to the DOJ in light of the recent legal actions. Numerous subcontractors have come together to make this project a success. Bechtel Jacobs Company LLC is providing the project management for this task. SAIC is performing the excavation and sampling. Additional subcontractors include SEC, TetraTech, Inc., LAN-CON, Inc., and CDM Federal Services Inc. DOE requests approval to start this project by December 31, 1999. Tentatively, the excavation work is planned to begin January 6, 2000, and be completed by January 30, 2000. Further investigation and remedial activities will be conducted under the Comprehensive Environmental Response, Compensation, and Liability Act process in accordance with the Federal Facilities Agreement. This area is part of the Burial Grounds Operable Unit, which is scheduled for investigation in calendar year 2003.

Your timely attention to this matter is greatly appreciated. If you have any questions or desire further information please contact M. E. Redfield at (270) 441-6815.

Sincerely,

J. Dale Jackson, Acting Site Manager
Paducah Site Office

Enclosures:

cc w/out enclosures:
DMC/Kevil
G. L. Dover/P. A. Gourieux, Bechtel Jacobs Company/Kevil
S. Hankins, Pro-2-Serve/Kevil

CERTIFICATION

Document Identification: **Paducah Gaseous Diffusion Plant**
C-746-S Residential Landfill
Minor Modification
Permit No. 073-00014

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained therein, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

U. S. Department of Energy
Owner and Operator

W. Quincy Tidwell for

J. Dale Jackson
Acting Paducah Site Manager

12-16-99
Date Signed

CERTIFICATION

Document Identification: **Paducah Gaseous Diffusion Plant**
C-746-S Residential Landfill
Minor Modification
Permit No. 073-00014

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained therein, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

U. S. Department of Energy
Owner and Operator

W. Grant Tidwell for

J. Dale Jackson
Acting Paducah Site Manager

12-16-99
Date Signed

BECHTEL JACOBS Bechtel Jacobs Company LLC
P.O. Box 4699, Oak Ridge, Tennessee 37831-4699

DAT 07-DEC-99 Check No. 12009029
(PLEASE NEGOTIATE PROMPTLY)

REMITTANCE STATEMENT

PACKING LIST/ INVOICE NO.	OUR REL ORDER NO.	MATERIAL OR SERVICE	TRANSPORTATION	DISCOUNT	ADJUSTMENTS	NET
PERMIT	06-DEC-99 C-746-ST LANDFILL PERMIT		0.00			1,000.00

THIS DOCUMENT HAS A COLORED BACKGROUND AND AN ARTIFICIAL WATERMARK ON THE REVERSE SIDE.

BECHTEL JACOBS

DATE 07-DEC-99 87-175 No. 12009029

Pay to One Thousand Dollars And 00 Cents ********** $**1,000.00*
AMOUNT

To the Order of
KENTUCKY STATE TREASURER
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT, KY 40601

SUNTRUST
SunTrust Bank
Knoxville, N.A.

(PLEASE NEGOTIATE PROMPTLY)

⑈12009029⑈ ⑆064202750⑆ 7019004923⑈

22

ENCLOSURE I

WORK DETAILS

Background

The Department of Energy (DOE) is requesting approval to perform investigative sampling of Solid Waste Management Unit (SWMU)145, Area P Construction/Demolition Debris Disposal and Spoils Area. The area to be investigated is inside the permit boundary of the closed C-746-S Residential Landfill. See Figure 1 for the SWMU 145 boundary and the permit boundaries of the C-746-S&T Landfills. Concerns related to past disposal practices within the old North/South Diversion Ditch (NSDD) during relocation activities in the early 1980's has prompted the Department of Justice (DOJ) to direct DOE to sample and investigate the characteristics of fill materials placed in the ditch during relocation construction. The old NSDD lies within the permit boundary of the C-746-S Residential Landfill but outside the waste cells and surrounding fence (see Figure 2). It is proposed that up to five test pits or trenches will be excavated to the bottom of the former ditch to obtain samples. Although the actual materials present are unknown, based on present knowledge, these materials may include (1) roofing debris, (2) crushed metal drums, and (3) fly ash.

Site Preparation

The centerline of the old NSDD has been control surveyed to plant coordinates and plant benchmarks using topographical maps on November 20, 1999, (see Figure 3). Currently, only two proposed sampling areas or trenches have been surveyed and demarcated with stakes or flagging the week of November 29, 1999, (see Figure 4). If additional trenches will be excavated, the areas will be surveyed and a map which depicts the locations shall be submitted to the Cabinet. In addition, a geophysical survey was performed of the old NSDD using a magnetometer (EM-61and EM-31 method) and ground penetrating radar to attempt to locate anomalies associated with materials that were placed in the NSDD during construction.

The method of obtaining samples via hand-auguring to determine health and safety concerns was evaluated. It was determined that only shallow auguring could be accomplished and the data generated would not provide sufficient information to be of value. Therefore, hand auguring will not be performed prior to excavation activities.

Equipment necessary for conducting this work will be brought to the area and staged. Equipment will be staged prior to approval of this minor modification; however, no excavation and sampling activities will occur prior to approval. Equipment includes, but is not limited to, hypalon, high density polyethylene (HDPE), track hoe excavator, forklift, strong tight containers such as ST-90 boxes, over-packs, personnel protection equipment (PPE), flagging, signs, etc.

Due to this area being identified as SWMU 145 under the Resource Conservation and Recovery Act (RCRA) permit, activities in the exclusion zone will also meet HAZWOPER requirements. In order to perform work in this area, a regulatory notification has to be submitted for approval by Kentucky Division of Waste Management. This notification was submitted on November 24, 1999, for approval along with the Site Specific Work Plan. The Site Specific Work Plan details the work being performed and includes the Waste Management Plan, Safety and Health Plan, Sampling and Analysis Plan, and the Quality Assurance Plan.

Site Access

Temporary roadways will be constructed using portable airport runway material and/or gravel in order to access the test pit areas. This temporary access road will be constructed from the current C-746-S access road inside the SWMU 145 boundary then turn into the permit boundary space of the C-746-S Residential Landfill (drawings submitted with regulatory notification on December 9, 1999). After the excavation activities are completed, the portion of the temporary access road using portable airport runway will be removed and the site restored to its original condition. The gravel roadway will not be removed.

Control of the site will be accomplished by use of temporary fencing (safety and security), flagging, closed road, construction signs, and gates (see Figure 5). In addition, gates may be installed on the access road to the landfills to limit public traffic.

The innermost area will be managed as an exclusion zone. Training requirements for access to this area will include HAZWOPER, Radiation Worker II, General Employee Training (GET), and General Employee Radiation Training (GERT). Only trained authorized personnel will be allowed to enter the exclusion zone. Authorized personnel with GET and GERT training will be allowed to observe activities in the buffer zone between the exclusion zone and the temporary fencing. No on-site licensed operator's presence will be required due to all work being performed outside the security fence of the C-746-S Residential Landfill.

Sampling and Analysis

It is proposed to obtain approximately ten samples from each of the two trenches for analysis. Of the 20 samples, approximately ten samples will be analyzed. If water is present within the trench during excavation, one of the samples will be of the water. Parameters to be analyzed include volatiles, metals, and radiological constituents. The Site Specific Work Plan submitted to Kentucky Division of Waste Management with the regulatory notification contains the specific analytes and analytical methods. Results of the analysis will be received, validated, and assessed within 90 days of sampling.

Trenching and Backfilling

A track hoe excavator will be used to excavate trenches which will be approximately 25 to 30 feet long, 13 to 20 feet deep, and approximately 2 to 3 feet wide at the bottom. The excavation may be stepped or angled to prevent the excavation from becoming unstable. Therefore, the area may be wider at the top than at the bottom. Work will be planned to facilitate near continuous excavator operation. All site activities associated with trench excavation, soil sampling, soil storage, and backfill will be video recorded. Still photographs will also be taken as necessary. Recording will include the inside of the trenches to extent possible without entering the trenches.

The proposed sampling areas will not disturb the regulated cap or cell of the C-746-S Residential Landfill. Closed Cell Number 2 is geographically the closest to the proposed excavations. During construction of the cap for Cell Number 2, it was necessary to temporarily remove a section of the landfill fence to allow the toe of the vegetative cover of the cap to "toe out" to the existing grade. After the vegetative cover was placed, the landfill fence was constructed at its former location. Please see Figure 6 for a graphical representation of the cap toe/fence interface. The proposed sampling areas are outside the fence will not disturb the regulated cap and may not disturb the "toe" of the cap that was used just to grade the area.

Each bucket of excavated material will be surveyed for beta and gamma radioactive contamination and the presence of volatile constituents. Per the direction of the Department of Justice, samples will be collected at various depths from the trench. Materials removed from the trench will be handled as Investigation Derived Waste (IDW) in accordance with the Environmental Protection Agency's policy, "Management of Remediation Waste Under RCRA," publication number EP530-F-98-1 and screened in accordance with approved screening criteria. Clean soils shall be obtained from off-site and used as backfill. Compaction will be achieved by placing the backfill in thin lifts and tamping the lift with the track hoe excavator bucket to the satisfaction of the oversight engineer. After trench area has been backfilled, the tracks of the trackhoe shall be utilized to achieve compaction. Additional clean fill will be added as necessary and recompacted to achieve positive drainage of the sampling area. The area will then be smoothed and seeded. Prior to the next trench being excavated, the excavator bucket will be decontaminated and surveyed. Precautions will be taken to secure the site in the event of inclement weather. The open trench, any open boxes, and the soil piles will be covered with hypalon or other suitable material in compliance with alternative daily cover requirements to prevent run-on/run-off.

Erosion controls will be in place during all excavation/backfill activities. Excavated materials, generated wastes, and decontamination waters will be properly containerized, stored, and disposed of in accordance with applicable regulations. Decontamination waters will not be considered leachate.

Leachate Management

Water encountered during the course of excavation will remain in the trench. If the situation arises where this liquid must be removed in order to continue this project, the liquid will be transferred to 1200-gallon polyethylene containers and handled in accordance with the approved site procedures as leachate.

Waste Management

All waste materials will be stored in approved containers. Containers will be properly labeled and managed in accordance with on-site procedures. When containers are full, they will be transferred to a storage location at the plant. Wastes will be characterized and disposal options determined based upon analytical results. Wastes expected to be generated include soil, hypalon, PPE, and decontamination water.

Excavated materials shall be evaluated against the approved waste screening criteria. Excavated materials which are intact waste containers, any visibly discolored soils which appears to have resulted from a breached container, materials which exceed 500 trichloroethylene (1000 ppm as measured with a photo ionization detector [PID]), or any material having a radiological surface scan above 50,000 dpm/100 cm^2 shall be considered waste and shall be placed in approved containers, such as ST-90 boxes or overpacks, and handled appropriately. Excavated materials which do not meet the waste screening criteria shall be utilized as backfill and returned to the trench.

Waste hypalon or HDPE sheeting will be either placed in 55-gallon drums or in the ST-90 boxes with excavated waste materials. PPE and other miscellaneous wastes generated during these activities will be placed in 55-gallon drums. Decontamination water shall be stored in 1200-gallon polyethylene containers. Leachate water, if generated, shall be segregated from the decontamination water and stored in 1200-gallon polyethylene containers.

Site Erosion/Water Control

The site will be maintained as to eliminate/minimize erosion of the trench and surrounding area. A temporary diversion structure will be constructed around the trench to minimize surface drainage run-on in case of a rainfall event. In addition, erosion controls (i.e., silt fencing, hay bales, etc.) will be utilized to minimize run-off from the work area. See Figure 7 for typical silt fence installation design and Figure 8 for typical straw bale barrier design. The backfilled areas shall be seeded and graded to achieve positive drainage and eliminate the ponding of water.

As part of the post closure care of the C-746-S Residential landfill, this area will be inspected on a regular basis. If any subsidence is noted, additional clean backfill shall be added and compacted to prevent ponding of water and maintain positive drainage. The area will be seeded as outlined in the Vegetation Plan below.

Vegetation Plan

Due to the winter months, seeding will be delayed until spring. As an interim measure, eight feet excelsior blanket shall be placed and pinned on all disturbed areas. This blanket shall be inspected and maintained as necessary to prevent erosion until the spring seeding occurs. Silt fencing shall remain in place until the revegetation is complete.

A seed mixture containing 20-25 percent annual rye and 80-75 percent Kentucky 31 fescue will be applied to the disturbed areas in the spring. Application of the seed mixture will be completed by drilling, as currently utilized at the C-746-U Contained Landfill, the C-746-S Residential landfill and the C-746-T Inert landfill. Straw shall be blown on and crimped after seeding. A commercial fertilizer conforming to a 15-15-15 formula will be applied on the topsoil after seeding at a rate of 250 pounds/acre.

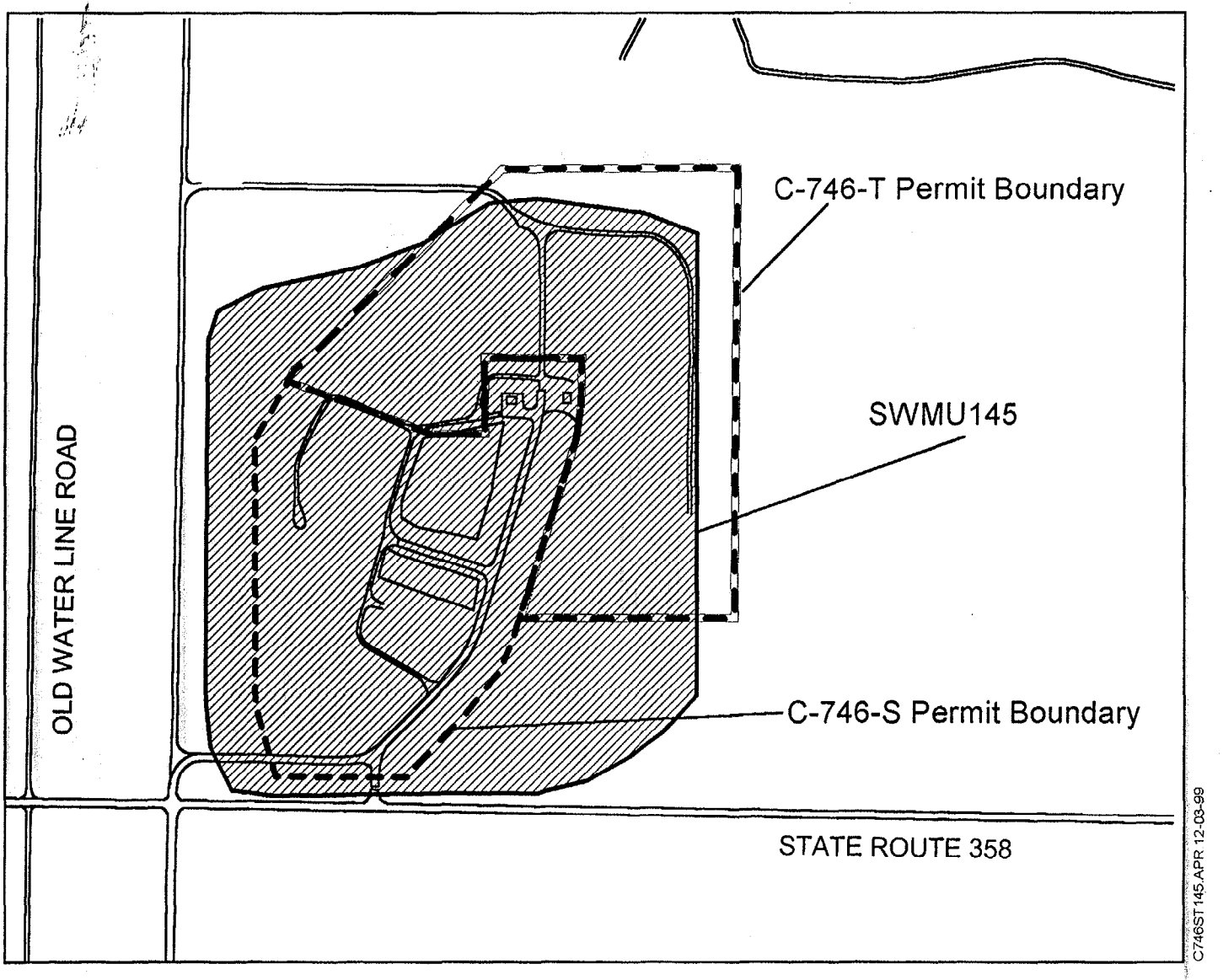


Figure 1. SWMU 145 and C-746-S and T Permit Boundaries

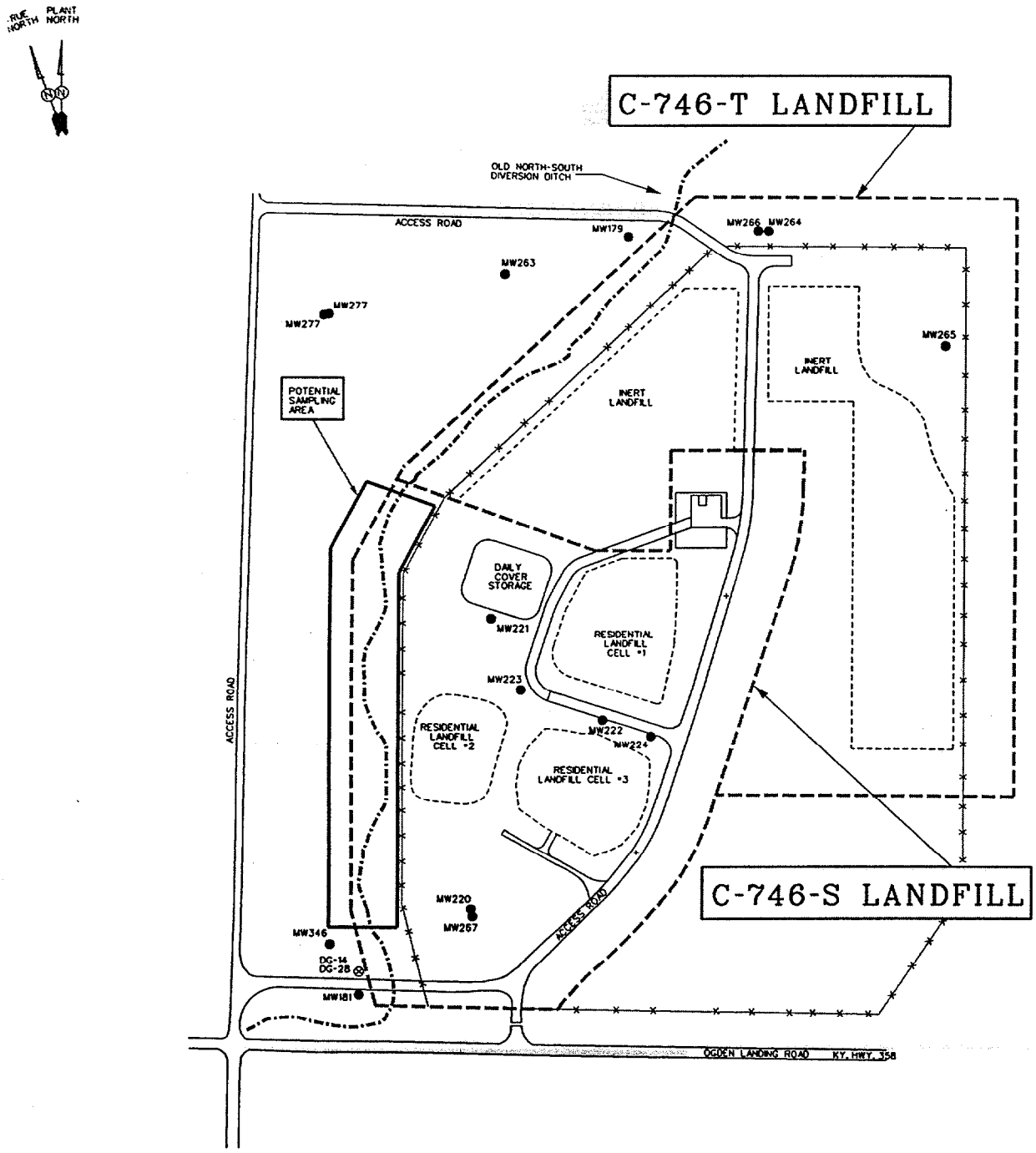


FIG. 2
SITE MAP

SCALE: 1"=100'

GRAPHIC SCALE:

0 100 200

LEGEND

- PERMIT BOUNDARY
- LANDFILL ACCESS CONTROL FENCE
- OLD NORTH-SOUTH DIVERSION DITCH LOCATION
- ⊗ INVESTIGATIVE BORING LOCATIONS
- ● EXISTING MONITORING WELL LOCATION

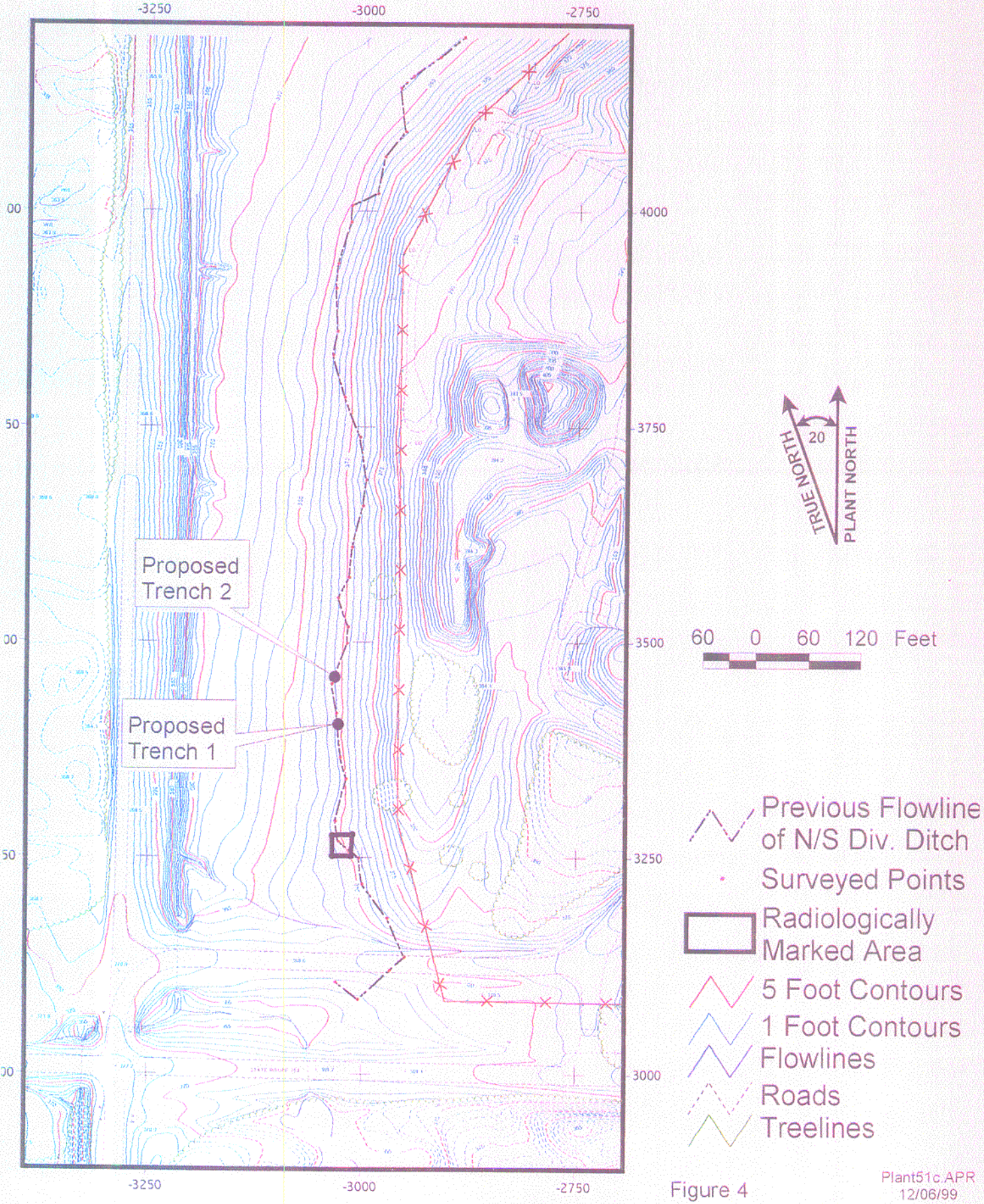


Figure 4

Plant51c.APR
12/06/99

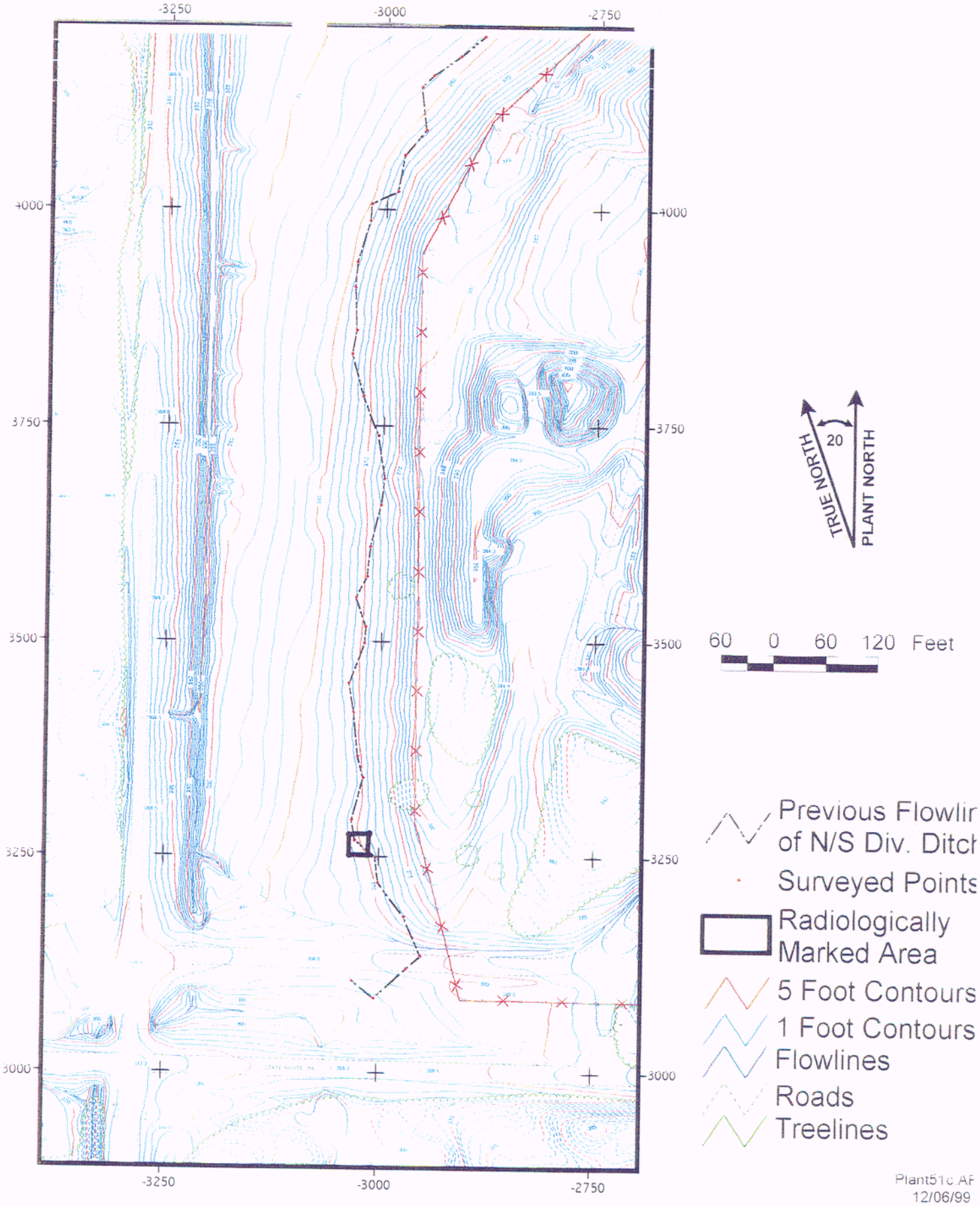


Figure 3. Centerline of the Old North/South Diversion Ditch at the Paducah Gaseous Diffusion Plant

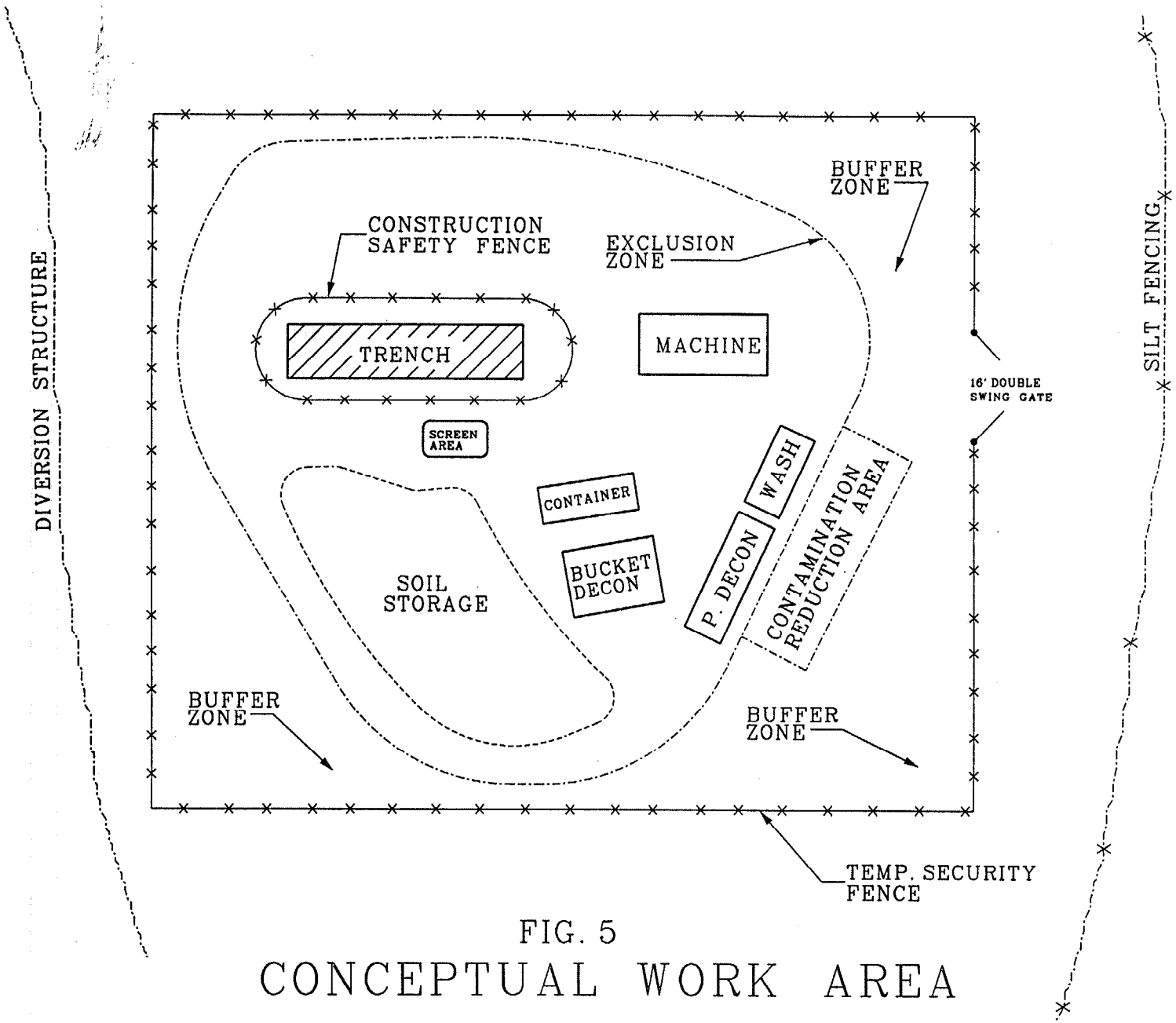
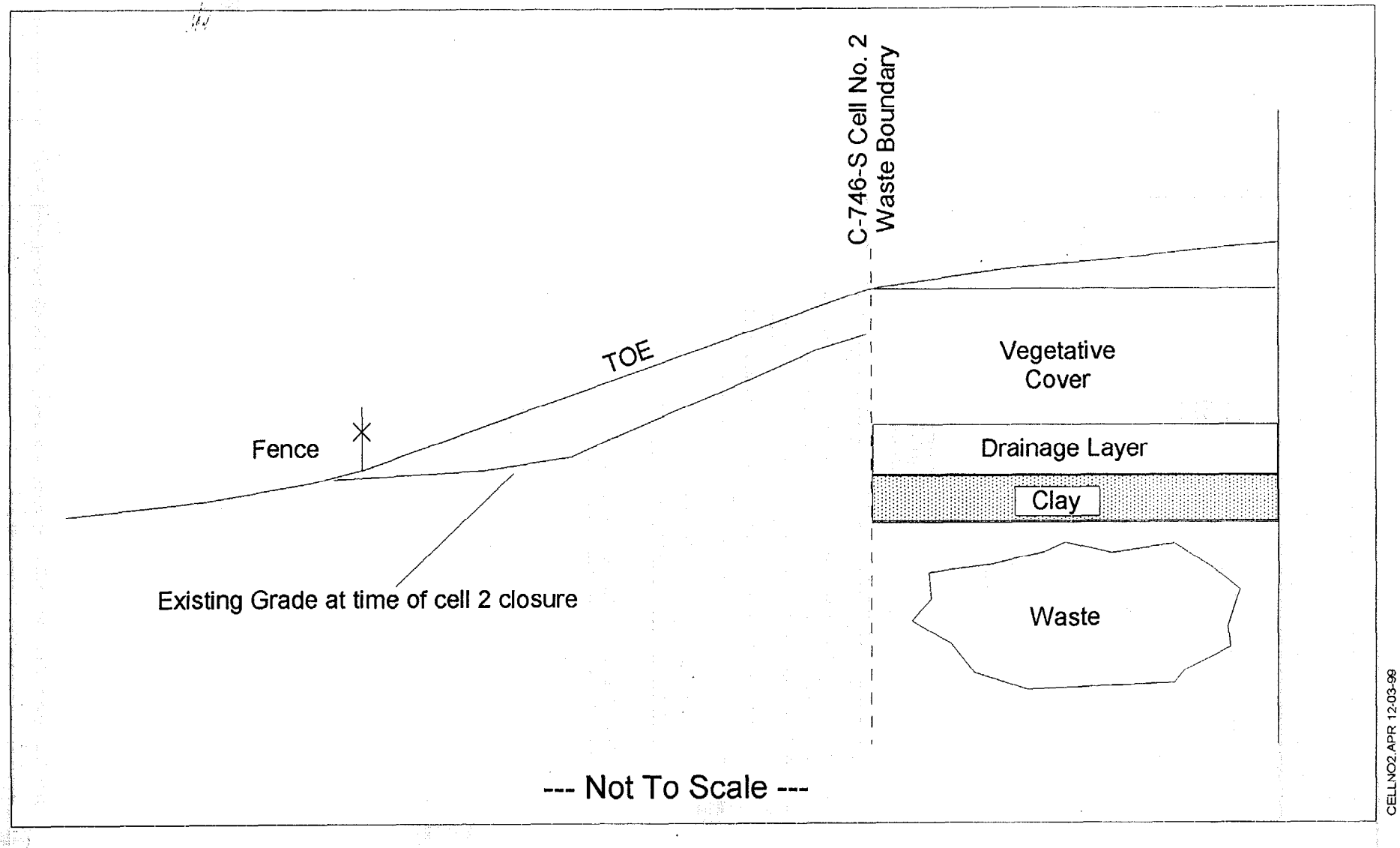


FIG. 5
CONCEPTUAL WORK AREA

C-746-S Cell No. 2
Vegetative Cover/Toe Interface



CELLNO2.APR 12-03-99

Figure 6

ENG' 'EERING STANDARD

OAK RIDGE, TENNESSEE - PADUCAH, KENTUCKY

NUMBER	ES-7.16-1
DATE	10-3-88
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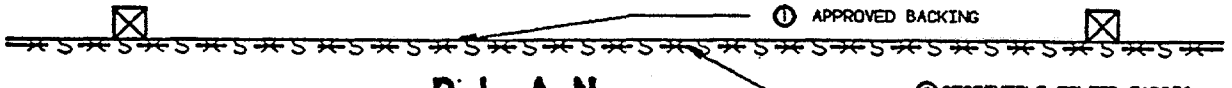
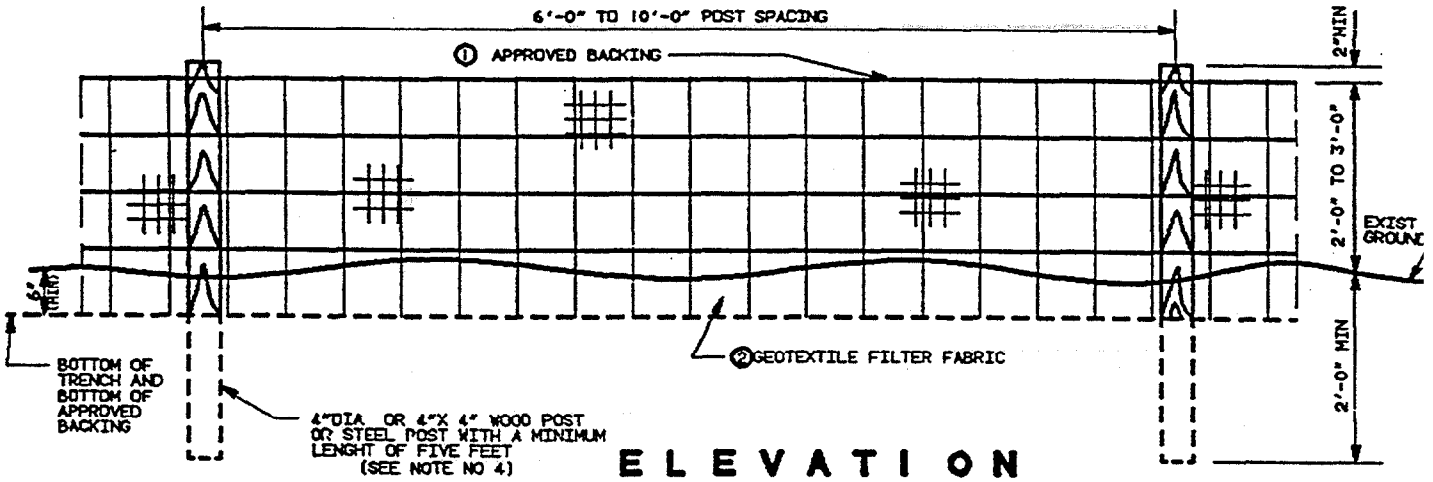
PAGE	1 OF 1

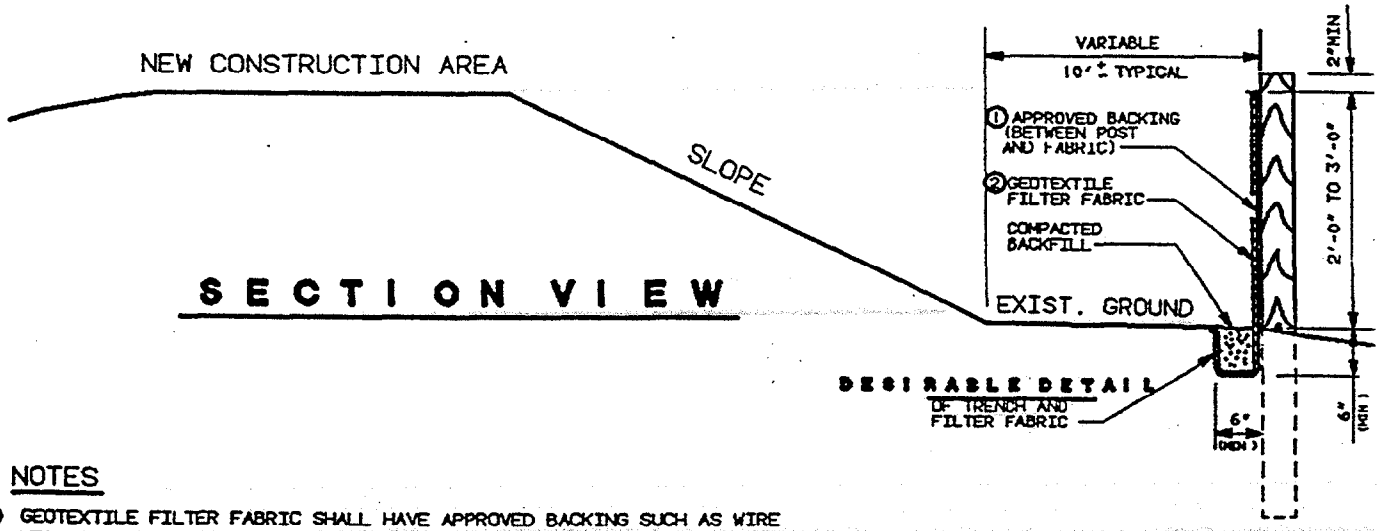
TEMPORARY SILT FENCE



PLAN



ELEVATION



SECTION VIEW

NOTES

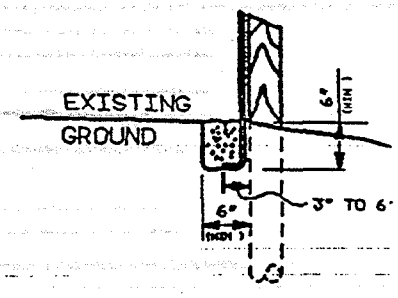
① GEOTEXTILE FILTER FABRIC SHALL HAVE APPROVED BACKING SUCH AS WIRE MESH FENCE, OR A REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER FABRIC WIRE FENCE SHALL BE LIVESTOCK TYPE WIRE, AT LEAST 14-GAGE, A MINIMUM OF 36 INCHES IN HEIGHT, AND HAVE A MAXIMUM SPACING OF 6 INCHES.

② GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS OF FABRIC MANUFACTURED FOR THE SPECIFIC PURPOSE OF SILT CONTROL.

③ ACCEPTABLE SILT FENCE FABRICS INCLUDE AMOCO SILTSTOP, MIRAFI 100X AND TREVIRA 1115.

④ A PREASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.

⑤ SILT FENCE SHALL BE MAINTAINED IN A SATISFACTORY CONDITION FOR THE DURATION OF THE PROJECT.



ALTERNATE DETAIL OF TRENCH AND FILTER FABRIC

EROSION CONTROL PLAN LEGEND: —⋊— S —⋊— S —⋊— S —⋊— (TEMP. SILT FENCE)

APPROVED BY

Figure 7

NUMBER ES-7.16-1

ENGINEERING STANDARD

OAK RIDGE, TENNESSEE - PADUCAH, KENTUCKY

NUMBER	ES-7.16-2
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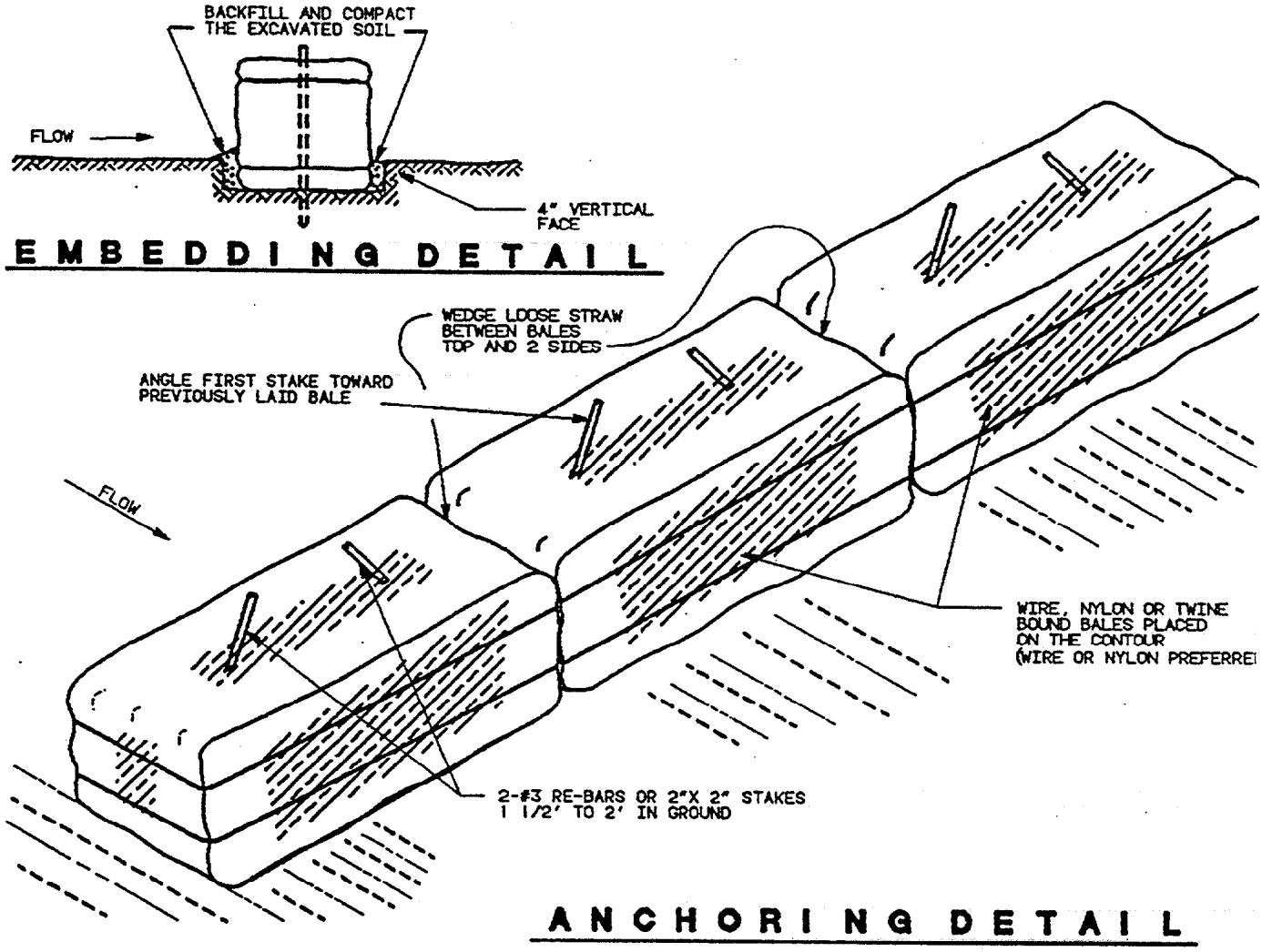
PAGE	1 OF 1

STRAW BALE BARRIERS



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. TRENCH ON EACH SIDE OF BALES SHALL BE BACKFILLED AND COMPACTED WITH THE EXCAVATED SOIL TO PREVENT PIPING.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL — SBB —

APPROVED BY

Figure 8

NUMBER ES-7.16-

Chris Marshall

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

December 30, 1999

Mr. J. Dale Jackson, Acting Site Manager
Paducah Site Office, Oak Ridge Operations
U. S. Department of Energy
P. O. Box 1410
Paducah, Kentucky, 42001-1410

CERTIFIED MAIL # Z 258 077 823

RE: U. S. DOJ Investigation
Pending Application No. 073-00014 LR1 MOMN3
Paducah Gaseous Diffusion Plant
Residential Landfill C-746-S
Permit No. 073-00014
McCracken County

Dear Mr. Jackson:

We have reviewed your faxed submittal received 12-29-1999 at 13:04 EST for a modification to the Closure Plan for the above landfill. This modification is to aid the Department of Justice in their investigation of the Department of Energy (DOE), Paducah Gaseous Diffusion Plant. This minor modification has been expedited to ensure further delays are avoided. The Cabinet approves this modification with the following revisions:

1. The placement of all materials in backfilling the trench is considered a critical issue to the Division. All materials shall be placed in thin (8" maximum thickness) layers and compacted with the excavator bucket downpressure. The DOE oversight engineer shall personally witness all backfilling. A Division of Waste Management Professional Engineer shall make the final determination of closure cap acceptability.
2. The Division of Waste Management will have a full time witness at the excavation area during the entire DOJ sampling event.
3. The Division expects to receive the full test results and the accompanying analysis report within fifteen (15) calendar days of its completion.

If you have any questions concerning this approval please contact Ms. Linda Goodwin Martin, P. E. at 502-564-2225 extension 633.

Sincerely,

Charles W. Ritchie, P.E., Acting for

Ronald D. Gruzesky, P. E., Manager
Solid Waste Branch
Division of Waste Management

RDG/CWR/LGM/cwr

Enclosure:

c: Gordon Dover, Acting Plant Manager, PGDP
Bill Campbell, USDOJ
Margie Williams, Paducah Regional Office
Bruce Sampson, Geologist
Mike Welch, Hazardous Waste Branch
West Permit Review Team

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ucky Natural Resources and Environmental Pr tion Cabinet
Department for Environmental Prot. .ion
Division of Waste Management

SOLID WASTE DISPOSAL FACILITY PERMIT

U. S. DEPARTMENT OF ENERGY

Oak Ridge Operations
Paducah Gaseous Diffusion Plant
Post Office Box E, Room G 114
Oak Ridge, Tennessee 37830

f Waste Management hereby grants the above-named facility a permit to engage in the activity specified below. This permit has been issued under the provisio r 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does n mittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other state and local agencies.

--See Attached --

om the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division ement. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Divisic gement are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and bor ied below is hereby acknowledged.

'E:	Operation	PERMIT NUMBER:	073-00014
TIVITY:	Residential Landfill (Closure) Cell No. 1	FINDS NUMBER:	KY8-890-008-982
		COUNTY:	McCracken
ENT TYPE:	NA		
ENT NUMBER:	NA		
	NA		
SPOSAL AREA:			
EA:	20.2		
	NA		
ATE:	April 14, 1988		
DATE:	November 1, 1998		

Issued this 4th day of March 199

David W. Morgan for
Kay Harker, Acting Director

Robert W. Logan
Robert W. Logan, Commissioner

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

n 1 The permittee shall complete closure activities in accordance with 401 KAR 30:030 (1988) and 40 KAR 47:040 (1988); and the application(s) plans received on September 13, 1990 (MOCP2) November 5, 1990 (MOMJ1); June 28, 1991 (PR1); and June 3, 1993 (MOMN2). The permitte shall place a final cap over all areas on the property containing solid waste.

n 2 The final cap required for the landfill shall consist of the existing daily and interim cover, followe by at least 24 additional inches of vegetative soil.

n 3 The permittee shall contact the cabinet at the commencement of cap construction and for a fina inspection prior to removal of contractor equipment.

n 4 The permittee shall grade the final cover to prevent ponding and provide for positive drainage. A system of run-on and run-off drainage ditches may be installed to protect the integrity of the fina cap.

n 5 The final cover shall be fertilized as necessary, seeded, and/or planted with legumes and perennia grasses. The permittee shall be required to repeat this process until vegetative cover is obtaine to ensure soil stabilization.

n 6 The permittee shall comply with any approved groundwater monitoring plan.

n 7 The permittee may install a venting system to accommodate methane migration and protect th integrity of the final cap.

n 8 The permittee shall comply with any leachate contingency plans in the permit application an leachate management requirements of 401 KAR 30:030 (1988) and 401 KAR 47:040 (1988).

n 9 The permittee shall comply with all other applicable requirements of 401 KAR Chapter 47 (1988 in conducting closure and closure care activities.

n 10 The permittee shall provide a notice to the deed as required by 401 KAR 47:040, Section 6(5 (1988).

Department of Energy
Oak Ridge Operations
Paducah Site Office
P.O. Box 1410
Paducah, KY 42001

March 26, 1996

Dave M
Pat M
Alan H

Robert H. Daniell, Director
ision of Waste Management
tucky Department for Environmental Protection
Reilly Road, Frankfort Office Park
ıkfort, Kentucky 40601

SPONSE TO PERMIT CONDITIONS ASSOCIATED WITH THE C-746-S RESIDENTIAL NDFILL, CELL NUMBER 1, PERMIT NUMBER 073-00014, FINDS NUMBER KY8-890--982, FOR THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP), MCCRACKEN UNTY, KENTUCKY

r Mr. Daniell:

March 4, 1996, the Kentucky Division of Waste Management (KDWM) issued the artment of Energy (DOE) a permit to conduct closure activities associated with Cell Number the C-746-S Residential Landfill. In correspondence, KDWM recognized that the final cap been placed on the cell and the Quality Assurance/Quality Control (QA/QC) plan has been nitted.

permit issued by KDWM outlines ten conditions for completing closure activities. The nittee is required to notify KDWM in writing within 30 days in the event of disagreement with of the conditions. Enclosed are DOE's responses to each condition. If you have any stions or require additional information, please call W. David Tidwell at (502) 441-6807.

Sincerely,

Jimmie C. Hodges

Jimmie C. Hodges, Site Manager
Paducah Site Office

22:Tidwell

losure

N. L. Carnes/R. H. Blumenfeld, CC-10
L. A. Eaton, JEG/PGDP
C. S. Gist, EW-91
P. J. Gross, SE-31
J. C. Massey, LMES/PGDP
J. W. Morgan, LMES/PGDP
J. W. Parks, EF-20
J. W. Wagoner, EM-424

CKFORD
RY

PAUL E. PATTON
GOVERNOR

COMMOMWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

March 4, 1996

dges, Site Manager
rtment of Energy
te Office
1410
Y 42001

CERTIFIED MAIL #Z 401 170 581

Massey, Plant Manager
Martin Energy Systems, Inc.
ns Avenue
42053

ducah Gaseous Diffusion Plant (PGDP) C-746-T Residential Landfill
nding Application Nos. 073-00015 MOMN1 and 073-00015 LI1PR1 (formerly 90-112)
d Application No. 79-441
rmit No. 073-00015
NDS No. KY8-890-008-982

e permit for conducting closure activities at the C-746-T Landfill is enclosed. This permit authorizes you to osure activities at the landfill, including placing a final cap on the waste areas, as authorized by 401 KAR 47:040, 0 through 12 (1988) and 401 KAR 48:170. Additionally, all construction and closure activities conducted at the must be in conformance with the applicable environmental performance standards described in 401 KAR 47:030. t will continue to conduct periodic inspections of the C-746-T Landfill.

e cabinet understands that the final cap has been placed on the landfill and that PGDP has completed the two-year e period. However, it appears that the QA/QC report for capping the landfill has not been submitted. In order to e pending file for the C-746-T Landfill, please submit a copy of the QA/QC report.

ease note that this letter and enclosed permit do not release PGDP from groundwater monitoring requirements or ssibility of additional groundwater assessment.

the event you disagree with the terms of this permit, you must notify this office in writing within thirty (30) days. general questions about your obligations, please refer to the enclosed regulations or call George F. Gilbert, Jr., P.E., Martin, P.E., at (502) 564-6716.

Sincerely,

David W. Morgan for

Kay Harker, Acting Director
Division of Waste Management

RW/me

en Yates, Paducah Regional Office
hn Morgan, LMES, Kevil
nda Martin
bert Sleeman, DOE, Oak Ridge
avid Tidwell, DOE, PGDP
ary Vander Boegh, LMES, Kevil
rry Arnzen, LMES, Kevil

ntucky Natural Resources and Environmental ection Cabinet
Department for Environmental Protection
Division of Waste Management

SOLID WASTE DISPOSAL FACILITY PERMIT

U. S. DEPARTMENT OF ENERGY

Oak Ridge Operations
Paducah Gaseous Diffusion Plant
Post Office Box E, Room G 114
Oak Ridge, Tennessee 37830

on of Waste Management hereby grants the above-named facility a permit to engage in the activity specified below. This permit has been issued under the provis apter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other state and local agencies.

--See Attached --

n from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division nagement. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Divisi anagement are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and bo cified below is hereby acknowledged.

YPE:	Operation	PERMIT NUMBER:	073-00015
CTIVITY:	Inert Landfill (closure)	FINDS NUMBER:	KY8-890-008-982
		COUNTY:	McCracken
MENT TYPE:	NA		
MENT NUMBER:	NA		
	NA		
ISPOSAL AREA:			
REA:	20.1		
	NA		
DATE:	July 3, 1989		
N DATE:	June 11, 1998		

Issued this 4th day of March 1996

David W. Morgan for
Kay Harker, Acting Director

Robert W. Logan

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

n 1 The permittee shall complete closure activities in accordance with the environmental performance standards of 401 KAR 47:030 and 401 KAR 47:040, Sections 10-12 (1988) or 401 KAR 48:170; and the plans received on January 24, 1985 (79-441). The permittee shall comply with the applicable environmental performance standards of 401 KAR 47:030 in conducting closure activities at the site.

n 2 The final cap for the landfill shall be designed to be in compliance with the environmental performance standards in 401 KAR 47:030, and shall reflect consideration of:

(a) The type and amount of waste in the facility;
(b) The mobility and expected rates of migration of the waste;
(c) The site location, topography and surrounding land use, and final site use;
(d) The climatic conditions in the area;
(e) The characteristics of the cover material including erodibility, slope stability, final surface contours, thickness, porosity, permeability, slope, length of run of slope, and type of vegetation on the cover; and
(f) The geological and soil profiles and surface and subsurface hydrology of the site.

The final design shall be developed and its construction overseen by a professional engineer registered with the state of Kentucky.

ı 3 The permittee shall contact the cabinet at the commencement of cap construction for the purpose of scheduling a final inspection prior to removal of contractor equipment.

ı 4 The permittee shall grade the final cover to prevent ponding and provide for positive drainage. Drainage ditches may be installed to prevent run-on/run-off and to protect the integrity of the final cap.

ı 5 The final cover shall be fertilized as necessary, seeded, and/or planted with legumes and perennial grasses. The permittee shall be required to repeat this process until adequate vegetative cover is obtained to ensure soil stabilization.

ı 6 The permittee shall comply with its approved groundwater monitoring plan and monitor on a quarterly basis for the parameters found in 401 KAR 48:300, Section 11(2) and 11(4). The permittee may request a reduction in the parameters after completion of four quarterly sampling events as allowed under 401 KAR 48:300, Section 11.

: 7 The permittee shall have a professional engineer provide a QA/QC construction report to document final cap construction. The report shall include an as-built plan depicting all components of the cap and other site features. The closure report shall be submitted to the cabinet within sixty (60) days after completion of cap construction. Guidelines on methods of documenting cap components are available upon request from the Solid Waste Branch.

18 The permittee shall prepare and implement a closure care plan for the site for two years in accordance with 401 KAR 47:030 and 401 KAR 47:040, Sections 10-12 (1988) or 401 KAR 48:170. A copy of the closure care plan shall be included in the facility's QA/QC construction report. The 2-year closure care plan shall provide for quarterly inspections which will be overseen by a professional engineer. The inspector shall check for erosion problems, vegetation problems, and whether all ditches, sediment ponds and leachate collection systems are functioning properly. The permittee shall remediate any problems at the site noted in the quarterly inspections. A yearly report based on quarterly inspections, shall be submitted to the cabinet along with descriptions of all remedial actions performed and documentation of any necessary corrective action work.

19 The permittee shall provide a notice to the deed as required by 401 KAR 47:040, Section 12(4)(c) (1988) or 401 KAR 48:170, Section 3(5).

10 The permittee shall comply with all other applicable requirements of 401 KAR Chapters 47 and 48 in conducting closure and closure care activities and remains responsible for any necessary corrective action.