received
6-9-03 CB

(25)

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

RECORD COPY

SOLID WASTE DISPOSAL FACILITY PERMIT

Permittee:

U.S. DEPARTMENT OF ENERGY
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 42002

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 Pages Two and Three

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:	Construction/Operation	PERMIT NUMBER:	073-00045
TYPE OF ACTIVITY:	Contained Landfill	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	N/A		
INSTRUMENT NUMBER:	N/A		
AMOUNT:	N/A		
ACRES:			
WASTE DISPOSAL AREA:	22.1		
PERMIT AREA:	59.7		
PERMIT FEE:	N/A		
EFFECTIVE DATE:	November 4, 1996		
EXPIRATION DATE:	November 4, 2006		

Issued this 1st day of February 2001

Robert H. Daniell, Director

Robert W. Logan, Commissioner

I-02000-0304

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall construct and operate in accordance with plans and narratives approved February 28, 1995; November 4, 1996; January 3, 1997; and February 1, 2001.

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

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

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

5) Waste entering the landfill shall be inspected in accordance with 401 KAR 48:090 Section 2. Records of inspections shall be kept in a daily log and shall be made available for review by Cabinet representatives upon request.

6) Only solid waste generated at the Paducah Gaseous Diffusion Plant shall be accepted for disposal at this landfill. The following solid wastes may be accepted for disposal at this landfill: construction/demolition wastes, commercial waste, industrial waste. These wastes are described in the Executive Summary of the Administrative Application and Attachment 6 of the Notice of Intent to Apply. Solid waste that exhibits radioactivity above de minimis levels shall not be placed in the landfill.

7) The Permittee shall not place solid waste that contains radionuclides in the contained landfill unless a Waste Characterization Plan for radionuclides has been submitted to the Division of Waste Management for review and approval. The permittee shall submit the proposed waste characterization plan to the Division of Waste Management within forty-five (45) days of the issuance of this permit. The permittee's submittal shall be considered a request for a major modification.

8) The permittee shall prepare and submit to the Division of Waste Management a complete reevaluation of the seismic hazards to the landfill liner, cap, leachate collection, and surface water collection systems by August 31, 2001. This study shall be coordinated with the Solid Waste Branch geological and engineering staff. The seismic reevaluation study shall completely reevaluate the ground motion potential, the potential for structural offset along local faults, and all other seismic risks associated with the New Madrid Seismic Zone, the Wabash Valley Seismic Zone, and local fault zones.

9) The leachate collection system shall include tanks capable of storing at least fifteen (15) days volume of leachate. The tanks and associated piping shall be inspected biweekly. A quarterly log of the volume, method, and place of disposal of the leachate shall be maintained, and shall be made available for review by Cabinet representatives upon request.

Groundwater Conditions

10) The permittee shall comply with all requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan. The requirements of 401 KAR 48:300 Section 8, Subsections 9, 11, 13, and 14 shall not apply to statistical exceedences of radionuclides, Uranium, and Technetium–99. However, in the event that a statistically significant increase of these contaminants occurs the permittee shall perform a complete Groundwater Contamination Assessment as required by 401 KAR 48:300 Section 8.

11) 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.

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

13) The permittee shall test the leachate annually for the parameters listed in Conditions 11 and 12 of this permit. Metals samples shall not be filtered.

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

May 14, 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 1739

RE: *Request for Modification to the Revised C-746-U Landfill Solid Waste Disposal Facility, Permit Number 073-00045, Dated February 1, 2001*
U.S. DOE - Paducah Gaseous Diffusion Plant
C-746-U Contained Landfill
Permit Number: 073-00045
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has reviewed your April 3, 2001 *Request for Modification to the Revised C-746-U Landfill Solid Waste Disposal Facility, Permit Number 073-00045, Dated February 1, 2001*. Conditions 11 and 14 have been changed 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).

EDUCATION PAYS
Printed on Recycled Paper
An Equal Opportunity Employer M/F/D

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
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 42002

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 Pages Two and Three

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:	Construction/Operation	PERMIT NUMBER:	073-00045
TYPE OF ACTIVITY:	Contained Landfill	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	N/A		
INSTRUMENT NUMBER:	N/A		
AMOUNT:	N/A		
ACRES:			
WASTE DISPOSAL AREA:	22.1		
PERMIT AREA:	59.7		
PERMIT FEE:	N/A		
EFFECTIVE DATE:	November 4, 1996		
EXPIRATION DATE:	November 4, 2006		

Issued this 14th day of May 2001

PERMIT NUMBER: 073-00045 ISSUE DATE: 5-14-01

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall construct and operate in accordance with plans and narratives approved February 28, 1995; November 4, 1996; January 3, 1997; and February 1, 2001.

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

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

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

5) Waste entering the landfill shall be inspected in accordance with 401 KAR 48:090 Section 2. Records of inspections shall be kept in a daily log and shall be made available for review by Cabinet representatives upon request.

6) Only solid waste generated at the Paducah Gaseous Diffusion Plant shall be accepted for disposal at this landfill. The following solid wastes may be accepted for disposal at this landfill: construction/demolition wastes, commercial waste, industrial waste. These wastes are described in the Executive Summary of the Administrative Application and Attachment 6 of the Notice of Intent to Apply. Solid waste that exhibits radioactivity above de minimis levels shall not be placed in the landfill.

7) The Permittee shall not place solid waste that contains radionuclides in the contained landfill unless a Waste Characterization Plan for radionuclides has been submitted to the Division of Waste Management for review and approval. The permittee shall submit the proposed waste characterization plan to the Division of Waste Management within forty-five (45) days of the issuance of this permit. The permittees submittal shall be considered a request for a major modification.

8) The permittee shall prepare and submit to the Division of Waste Management a complete reevaluation of the seismic hazards to the landfill liner, cap, leachate collection, and surface water collection systems by August 31, 2001. This study shall be coordinated with the Solid Waste Branch geological and engineering staff. The seismic reevaluation study shall completely reevaluate the ground motion potential, the potential for structural offset along local faults, and all other seismic risks associated with the New Madrid Seismic Zone, the Wabash Valley Seismic Zone, and local fault zones.

9) The leachate collection system shall include tanks capable of storing at least fifteen (15) days volume of leachate. The tanks and associated piping shall be inspected biweekly. A quarterly log of the volume, method, and place of disposal of the leachate shall be maintained, and shall be made available for review by Cabinet representatives upon request.

PERMIT NUMBER: 073-00045 ISSUE DATE: 5-14-01

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

Groundwater Conditions

10) The permittee shall comply with all requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan. The requirements of 401 KAR 48:300 Section 8, Subsections 9, 11, 13, and 14 shall not apply to statistical exceedences of radionuclides, Uranium, and Technetium-99. However, in the event that a statistically significant increase of these contaminants occurs the permittee shall perform a complete Groundwater Contamination Assessment as required by 401 KAR 48:300 Section 8.

11) At each approved groundwater monitoring location, beginning with the third quarter calender year 2001, 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.

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

13) The permittee shall test the leachate annually for the parameters listed in Conditions 11 and 12 of this permit. Metals samples shall not be filtered.

14) 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. PATTO
GOVERNOR

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

February 1, 2001

COPY

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 6937

RE: Approval of Work Plan for Abandonment and Replacement of Monitoring Wells
Approval of Monitoring Well Corrosion Study Work Plan
Approval of Minor Modification for Shelters
Pending Applications 073-00045 LC1 MOGW 1, LC1 MOGW 2, and LC1MOMN 2
U.S. DOE - Paducah Gaseous Diffusion Plant
C-746-U Contained Landfill
Permit Number: 073-00045
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has approved your Work Plan for Abandonment and Replacement of Monitoring Wells at the C-746-U Contained Landfill (received October 2, 2000), Monitoring Well Corrosion Study Work Plan (received October 2, 2000), and your Minor Modification for Shelters (received August 7, 2000). The Division understands that you will submit a Groundwater Monitoring Plan Modification for the C-746-U Landfill following the determination of the monitoring well corrosion mechanisms at the site and the choice of a suitable monitoring well casing material.

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).

EDUCATION PAYS
Printed on Recycled Paper
An Equal Opportunity Employer M/F/D

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

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

RECEIVED
2002 JAN -4 AM 11:09

SOLID WASTE DISPOSAL FACILITY PERMIT

Permittee:

U.S. DEPARTMENT OF ENERGY
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 42002

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 Pages Two and Three

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:	Construction/Operation	PERMIT NUMBER:	073-00045
TYPE OF ACTIVITY:	Contained Landfill	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	N/A		
INSTRUMENT NUMBER:	N/A		
AMOUNT:	N/A		
ACRES:			
WASTE DISPOSAL AREA:	22.1		
PERMIT AREA:	59.7		
PERMIT FEE:	N/A		
EFFECTIVE DATE:	November 4, 1996		
EXPIRATION DATE:	November 4, 2006		

Issued this 4th day of January, 2002

Robert H. Daniell, Director

Robert W. Logan, Commissioner

PERMIT NUMBER: 073-00045 ISSUE DATE: 1-4-02

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

General Conditions

1) The Permittee shall construct and operate in accordance with plans and narratives approved February 28, 1995; November 4, 1996; January 3, 1997; February 1, 2001; and January 4, 2002 (MOGW3).

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

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

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

5) Waste entering the landfill shall be inspected in accordance with 401 KAR 48:090 Section 2. Records of inspections shall be kept in a daily log and shall be made available for review by Cabinet representatives upon request.

6) Only solid waste generated at the Paducah Gaseous Diffusion Plant shall be accepted for disposal at this landfill. The following solid wastes may be accepted for disposal at this landfill: construction/demolition wastes, commercial waste, industrial waste. These wastes are described in the Executive Summary of the Administrative Application and Attachment 6 of the Notice of Intent to Apply. Solid waste that exhibits radioactivity above de minimis levels shall not be placed in the landfill.

7) The Permittee shall not place solid waste that contains radionuclides in the contained landfill unless a Waste Characterization Plan for radionuclides has been submitted to the Division of Waste Management for review and approval. The permittee shall submit the proposed waste characterization plan to the Division of Waste Management within forty-five (45) days of the issuance of this permit. The permittees submittal shall be considered a request for a major modification.

8) The permittee shall prepare and submit to the Division of Waste Management a complete reevaluation of the seismic hazards to the landfill liner, cap, leachate collection, and surface water collection systems by August 31, 2001. This study shall be coordinated with the Solid Waste Branch geological and engineering staff. The seismic reevaluation study shall completely reevaluate the ground motion potential, the potential for structural offset along local faults, and all other seismic risks associated with the New Madrid Seismic Zone, the Wabash Valley Seismic Zone, and local fault zones.

9) The leachate collection system shall include tanks capable of storing at least fifteen (15) days volume of leachate. The tanks and associated piping shall be inspected biweekly. A quarterly log of the volume, method, and place of disposal of the leachate shall be maintained, and shall be made available for review by Cabinet representatives upon request.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

Groundwater Conditions

10) The permittee shall comply with all requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan. The requirements of 401 KAR 48:300 Section 8, Subsections 9, 11, 13, and 14 shall not apply to statistical exceedences of radionuclides, Uranium, and Technetium-99. However, in the event that a statistically significant increase of these contaminants occurs the permittee shall perform a complete Groundwater Contamination Assessment as required by 401 KAR 48:300 Section 8.

11) At each approved groundwater monitoring location, beginning with the third quarter calender year 2001, 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.

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

13) The permittee shall test the leachate annually for the parameters listed in Conditions 11 and 12 of this permit. Metals samples shall not be filtered.

14) 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

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

SOLID WASTE DISPOSAL FACILITY PERMIT

U.S. DEPARTMENT OF ENERGY

Paducah Gaseous Diffusion Plant
P. O. Box 1410
Paducah, Kentucky 42002

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 Pages Two, Three, and Four--

No deviations 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:	Construction/Operation	PERMIT NUMBER:	073-00045
TYPE OF ACTIVITY:	Contained Landfill	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	*		
INSTRUMENT NUMBER:	*		
AMOUNT:	*		
ACRES:			
WASTE DISPOSAL AREA:	22.1 acres		
PERMIT AREA:	59.7 acres		
PERMIT FEE:	$800		
EFFECTIVE DATE:	November 4, 1996		
EXPIRATION DATE:	November 4, 2006		

Issued this 4 th day of November, 1996

Robert H. Daniell, Director

Robert W. Logan, Commissioner

* Government Guarantee

Printed on Recycled Paper

DEP 7040 (5/92)

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

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

2. At each approved groundwater monitoring location, the Permittee shall monitor for groundwater contaminants as specified in 401 KAR 48:300, Section 11(3), and trichloroethylene, technetium-99, total uranium, gross alpha, and gross beta as specified in Appendix 25 of the Technical Application. Groundwater and surface water samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule:

Samples To Be Collected During The Preceding Months Of:	Results Due To The Division Of Waste Management By:
January, February, March	May 30
April, May, June	August 30
July, August, September	November 30
October, November, December	February 28

3. An explosive gas monitoring program shall be conducted at least quarterly. Permanent monitors shall be installed and set to alarm at 25% of the Lower Explosive Limit (LEL) at facility structures in accordance with 401 KAR 48:070, Section 10 and 401 KAR 48:090, Section 4. In the event that methane levels exceed 25% of the LEL at the landfill or 100% of the LEL at the property boundary, the procedures described in 401 KAR 48:090, Section 4(5) shall be followed.

4. The leachate collection system shall include leachate storage tanks capable of storing at least fifteen (15) days of leachate. The tanks and associated piping shall be inspected biweekly. A quarterly log of the quantity, concentration, method and place of disposal of leachate shall be maintained.

The Permittee shall analyze the leachate for the contaminants listed in this condition. If the concentration of each contaminant has not exceeded its Maximum Contaminant Level (MCL) for four (4) consecutive quarters, the Director may allow annual sampling to replace quarterly sampling. For those contaminants that do not have an MCL, quarterly sampling may be reduced to annual sampling after four (4) consecutive quarters of not detecting a significant increase over background concentration.

Leachate Contaminants to be Analyzed For

Specific Conductance*	Oil and Grease	Cadmium	Iron*	Xylene
Chemical Oxygen Demand*	Ethylbenzene	Sodium*	Copper	Phosphorus
Total Dissolved Solids*	Manganese	Calcium	Lead	Benzene
Total Organic Carbon*	Magnesium	Chloride*	Nickel	Technetium-99
Polychlorinated Biphenyls	Potassium	Uranium	Zinc	
Trichloroethylene	Bicarbonate	Gross Alpha	Sulfate	
Biochemical Oxygen Demand	Carbonate	Gross Beta	pH*	
Total Suspended Solids	Aluminum	Toluene	Chromium	

* Quarterly sampling shall continue for these constituents regardless of the detected levels.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

5. The Permittee shall comply with the requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan. The requirements of 401 KAR 48:300, Section 8 (9), (11), (13), and (14) shall not apply to statistically significant increases of radionuclides, uranium, and technetium-99. However, in the event that a statistically significant increase of these contaminants occurs, the Permittee shall be required to perform a Groundwater Contamination Assessment as described in 401 KAR 48:300, Section 8.

6. Waste entering the landfill shall be inspected in accordance with 401 KAR 48:090, Section 2. Records of inspections shall be kept in a daily log and shall be made available for review upon request by Cabinet representatives.

7. Access to the landfill shall be restricted by a fence and locking gates. Warning signs shall be posted as described in 401 KAR 48:090, Section 14.

8. The working face of the landfill shall be maintained as described in 401 KAR 48:090, Section 9.

9. A quarterly report shall be submitted to the Cabinet in accordance with 401 KAR 47:190, Section 8, and shall include the following information.

   Certification of a new liner, cap, leachate collection system or hydrological system;
   Volume of waste received and source of waste;
   Results of methane monitoring;
   Quantity of leachate removed and method of treatment.

10. The closure cap shall be constructed to comply with 401 KAR 48:080 and as described in Attachment 26 of the technical application. The closure plan outlined in Attachment 27 of the technical application shall be followed in closing the facility.

11. Only solid wastes generated at the Paducah Gaseous Diffusion Plant shall be accepted for disposal at this landfill. The following solid wastes may be accepted for disposal at the landfill: construction/demolition wastes; commercial wastes; industrial wastes. These solid wastes are described in the Executive Summary portion of the Administrative Application and Attachment 6 of the Notice of Intent to Apply. Solid waste that exhibits radioactivity above de minimis levels shall not be placed in the landfill.

12. The Permittee shall not place solid waste that contains radionuclides in the contained landfill until a Waste Characterization Plan for radionuclides has been submitted to the Division of Waste Management for review and approval. The Permittee shall submit the proposed Waste Characterization Plan to the Division of Waste Management within sixty (60) days of the issuance of this Permit. The Permittee's submittal shall be considered a request for a major modification.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

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

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

PHILLIP J. SHEPHERD
SECRETARY

BRERETON C. JONES
GOVERNOR

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

February 28, 1995

Mr. Jimmie Hodges, Site Manager
U. S. Department of Energy
Paducah Site Office
P. O. Box 1410
Paducah, Kentucky 42001

RE: Paducah Gaseous Diffusion Plant (PGDP): Construction Permit for a Solid Waste Landfill; Application Number 073-00045NWLC1, McCracken County

Dear Mr. Hodges:

Enclosed is a copy of the final construction permit issued to the Paducah Gaseous Diffusion Plant for the construction of a solid waste landfill. Also enclosed is a copy of the comments received during the public comment period and the Division's responses to the comments. Copies of the final permit and response to comments have been sent to members of the public that requested copies.

If you have any questions concerning this issue, please contact Tuss Taylor at (502) 564-4797.

Sincerely,

Caroline P. Haight

Caroline P. Haight, Director
Division of Waste Management

CPH/TT/DRW

Enclosure

Printed on Recycled Paper
An Equal Opportunity Employer M/F/D

cc: Robert Sleeman, DOE, Oak Ridge
David Tidwell, DOE, PGDP
John Morgan, MMES, Kevil
Jerry Amzen, MMES, Kevil
Gary Vander Boegh, MMES, Kevil
Ken Yates, KDWM, Paducah

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

SOLID WASTE DISPOSAL FACILITY PERMIT

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

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 Two--

No deviations 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:	Construction	PERMIT NUMBER:	073-00045
TYPE OF ACTIVITY:	Contained Landfill	FINDS NUMBER:	KY8890008982
BOND:		COUNTY:	McCracken
INSTRUMENT TYPE:	*		
INSTRUMENT NUMBER:	*		
AMOUNT:	*		
ACRES:			
WASTE DISPOSAL AREA:	22.1		
PERMIT AREA:	59.7		
PERMIT FEE:	$15,500		
EFFECTIVE DATE:	February 28, 1995		
EXPIRATION DATE:	February 28, 2005		

Issued this 28th day of February, 1995

Caroline P. Haight, Director

Robert W. Logan, Commissioner

* Government Guarantee

Printed on Recycled Paper

DEP 7040 (5/92)

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

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

2. At each approved groundwater monitoring location, the Permittee shall monitor for the full list of Appendix I constituents as specified in 401 KAR 48:300, Section 11(3), and trichloroethylene, technetium-99, total uranium, gross alpha, and gross beta as specified in Appendix 25 of the Technical Application. Groundwater and surface water samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule:

Samples To Be Collected During The Preceding Months Of:	Results Due To The Division Of Waste Management By:
January, February, March	May 30
April, May, June	August 30
July, August, September	November 30
October, November, December	February 28

3. The Permittee shall comply with the requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan.

4. The Permittee shall install five (5) piezometers in the Upper Continental Recharge System (UCRS) as described in Attachment 25 of the Technical Application. Quarterly water level measurements shall be taken for a period of at least one year or until the Director of the Division of Waste Management (Director) determines that sufficient data has been obtained to determine the rate and direction of groundwater flow in the UCRS. If the piezometers are dry, this condition shall be recorded. If dry conditions persist for four (4) consecutive quarters, monitoring shall be reduced to an annual schedule. Upon detection of water in the peizometers, quarterly water level measurements shall resume. If water is present, grab samples for trichloroethylene and technetium-99 shall be taken at each of the piezometers during quarterly sampling as described in Condition #2.

   If the piezometers are damaged, the Director shall evaluate the existing data to determine if sufficient information has been collected. If the Director determines that additional information is required, the piezometers shall be repaired or replaced by the Permittee.

5. The equipment listed in Attachment 8 of the Technical Application shall be maintained in good condition and inspected and operated as described in Attachment 9 of the Technical Application.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

6. An explosive gas monitoring program shall be conducted at least quarterly. Permanent monitors shall be installed and set to alarm at 25% of the Lower Explosive Limit (LEL) at facility structures in accordance with 401 KAR 48:070, Section 10 and 48:090, Section 4. In the event that methane levels exceed 25% of the LEL at the landfill or 100% of the LEL at the property boundary, the procedures described in 401 KAR 48:090(4)(5) shall be followed.

7. A Safety and Communication Plan shall be implemented as described in 401 KAR 48:070, Section 12.

8. The leachate collection system shall include leachate storage tanks capable of storing at least fifteen (15) days of leachate. The tanks and associated piping shall be inspected biweekly. A quarterly log of the quantity, concentration, method and place of disposal of leachate shall be maintained.

   The concentration of the leachate shall be determined in accordance with 401 KAR 48:300, Section 10(3). In addition to these parameters, the Permittee shall analyze the leachate for trichloroethylene, technetium 99, total uranium, gross alpha, and gross beta. If the concentration of each contaminant listed in 401 KAR 48:300, Section 11(3)(a) and (b) has not exceeded its Maximum Contaminant Level (MCL) for four (4) consecutive quarters, the Director may allow annual sampling to replace quarterly sampling. Quarterly sampling shall continue for the constituents listed in 401 KAR 48:300, Section 11(3)(f), regardless of the detected concentration. For those contaminants that do not have an MCL, quarterly sampling may be reduced to annual sampling after four (4) consecutive quarters of not detecting a significant increase over background concentration.

9. Waste entering the landfill shall be inspected in accordance with 401 KAR 48:090, Section 2. Records of inspections shall be kept in a daily log and shall be made available for review upon request by Cabinet representatives.

10. Access to the landfill shall be restricted by a fence and locking gates. Warning signs as described in 401 KAR 48:090(14) shall be posted.

11. The working face of the landfill shall be maintained as described in 401 KAR 48:090, Section 9.

12. A quarterly report shall be submitted to the Cabinet in accordance with 401 KAR 47:190, Section 8 and shall include the following information.

    Certification of a new liner, cap, leachate collection system or hydrological system;
    Volume of waste received and source of waste;
    Results of methane monitoring;
    Quantity of leachate removed and method of treatment.

SOLID WASTE DISPOSAL FACILITY PERMIT - Continued

13. The closure cap shall be constructed to comply with 401 KAR 48:080 and as described in Attachment 26 of the technical application. The closure plan outlined in Attachment 27 of the technical application shall be followed in closing the facility.

14. The Permittee shall comply with applicable provisions of the McCracken County Solid Waste Management Plan.

15. Solid waste accepted at this landfill shall be limited to the following wastes, as described in the Executive Summary portion of the Administrative Application. Only wastes generated by the Department of Energy at the Paducah Gaseous Diffusion Plant shall be accepted.

    Residential Wastes
    Construction/Demolition Wastes
    Commercial/Construction Wastes
    Industrial Wastes
    Institutional/Medical Wastes

    Solid waste that exhibits radioactivity above de minimis levels shall not be placed in the landfill.

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

RECEIVED

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

cc: DMC
T. Wheeler
C. Jones
G. Van Sickle
M. Gage
D. Gominski
J. Farrell
J. Morgan
R. Forsee
S. Davis

January 4, 2002

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

SENT BY FAX AND CERTIFIED MAIL #7000 1670 0000 7826 1074

RE: Approval of C-746-U Solid Waste Landfill Groundwater Monitoring Plan / Work Plan for the Abandonment and Replacement of Monitoring Wells
Paducah Gaseous Diffusion Plant, Paducah, Kentucky
Pending Application Number 073-00045 LC1 MOGW3
Permit Number 073-00045
McCracken County

Dear Mr. Seaborg:

The Division of Waste Management has approved your C-746-U Solid Waste Landfill Groundwater Monitoring Plan, Paducah Gaseous Diffusion Plant, Paducah, Kentucky (Pending Application Number 073-00045 LC1 MOGW3), received December 7, 2001, with revisions received December 17, 2001.

The revised permit for your contained 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).

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
Attachment

EDUCATION PAYS
Printed on Recycled Paper
An Equal Opportunity Employer M/F/D

Cc: Gary Vander Boegh Attachment
Carl R. Froede, Jr., USEPA Region 4
Jeff Crane, USEPA Region 4
Michael V. Welch, Hazardous Waste Branch
Ronald D. Gruzesky, Solid Waste Branch
Charles W. Ritchie, Solid Waste Branch
Tony Hatton, Hazardous Waste Branch
Todd Mullins, Hazardous Waste Branch
Randy McDowell, Office of Legal Services
Paducah Regional Office Attachment
Madisonville Regional Office
DWM File# 073-00045 LC1 MOGW3 Attachment
Reading File
West File