Document D0023

Ernie Fletcher
Governor

LaJuana S. Wilcher
Secretary

Commonwealth of Kentucky
Environmental & Public Protection Cabinet
Department for Environmental Protection
Division of Waste Management
14 Reilly Road
Frankfort KY 40601-1190

February 2, 2004

Mr. William E. Murphie, Manager
U.S. Department of Energy
Portsmouth Paducah Project Office
1017 Majestic Place Drive
Suite 200
Lexington KY 40513

Mr. Glenn E. VanSickle, Paducah Manager of Projects
Bechtel Jacobs Company LLC
761 Veterans Avenue
Kevil, Kentucky 42053

RE: Draft Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexaflouride Conversion Facility at the Paducah, Kentucky, Site
DOE/EIS-0359

Dear Mr. Murphie and Mr. VanSickle:

The Division of Waste Management (Division) has completed its review of the DUF6 Environmental Impact Statement (EIS) received on November 24, 2003. Several concerns were identified during the review. The Division's comments are outlined in the attached pages. Also attached separately are comments from the Cabinet for Health Safety (CHS). Please edit the draft EIS consistent with the enclosed comments.

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Mr. Murphie,
Mr. VanSickle
Page 2
January 30, 2004

We look forward to the submittal of a revised EIS. Please contact Lori Veal at (502) 564-6716 if you have any questions or need additional information.

Sincerely,

Michael V. Welch, P.E., Manager
Hazardous Waste Branch

MVW/lmv

Attachment

c: Randy McDowell, OLS-Frankfort
Mike Welch, DWM-Frankfort
Lori Veal, DWM-Frankfort
Tuss Taylor, DWM-Frankfort
DWM Reading file # 1190
DOE Reading file

Draft Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexaflouride Conversion Facility at the Paducah, Kentucky Site, Paducah, Kentucky

Specific Comments:

1. **Summary, Section S.1.1.2, Page S-5 and S-6:** This section outlines the development of concern over DOE's DUF6 inventory beginning in 1995. The 3rd paragraph describes an agreement reached in 1998 between DOE and Ohio EPA (OEPA) that resulted in the implementation of a DUF6 management plan governing the storage of DUF6 cylinders at Portsmouth. The 4th paragraph discusses a consent order entered into in 1999 by DOE and the Tennessee Department of Environment and Conservation (TDEC) regarding the implementation of a UF6 management plan for cylinders stored at ETTP, as well as removal or conversion of DUF6 cylinders at ETTP. An addition must be included in this section to discuss the Agreed Order signed by DOE and Kentucky Department for Environmental Protection in October 2003 regarding the implementation of a DUF6 management plan for cylinders stored at PGDP, as well as other issues associated with the proposed DUF6 conversion facility at Paducah. D0023-1

2. **Section 1.1.2, Page 1-4 and 1-5:** See Specific Comment #1 above. D0023-2

3. **Summary, Section S.5.2.2, Page S-30:** Impacts from a certain type of accident were investigated by DOE but not included in the draft EIS due to security concerns. The document states that a classified appendix will be provided to proper state and local officials for review and comment. Please identify which "proper state and local officials" will review the classified appendix. D0023-3

4. **Summary, Section S.5.2.2, Page S-31:** Current UDS facility design includes the storage and use of anhydrous NH_3 for production of hydrogen for the conversion process. Conversion facility scenarios involving the accidental release of NH_3 were evaluated. However, the document states that the use of natural gas for hydrogen production is being investigated, which would eliminate the need for NH_3. DOE must define in the EIS the specific process and products that will be utilized in the conversion facility in order to complete a relevant evaluation of environmental impacts. D0023-4

5. **Summary, Section S.5.19, Page S-45:** Please clarify the statement that the land used to dispose of conversion products would be an "irreversible and irretrievable" commitment of resources. The Kentucky Division of Waste Management (KDWM) does not agree with the designation of this land as an "irreversible and irretrievable resource" or the limitations implied regarding any natural resources damages that could occur due to construction and operation of the conversion facility. D0023-5

6. **Section 1.1.1, Page 1-4:** The first paragraph describes the agreement between DOE and USEC signed in June 2002 to transfer ownership of up to 23,300 tons DUF6 from USEC to DOE between 2002 and 2006. A clear determination must be made with regards to who will be responsible for management of these cylinders. The EIS must be revised to indicate if DOE plans to manage these cylinders under the 2003 DUF6 Agreed Order between Kentucky and DOE. D0023-6

7. **Section 2.4.2.3, Page 2-30:** This section outlines safety considerations related to cylinder transportation. The highest risk is shown to be associated with accidents involving NH_3 or HF shipments. Please include consideration of risks associated with shipping UF_6 cylinders from ETTP to the selected conversion sites. D0023-7

8. **Section 3.1.5.1, Page 3-15:** The sixth paragraph states "In 2000, the maximum uranium concentration from DOE outfalls was 0.09 mg/L. This value is below the derived concentration guide of 600 pCi/L." Please state these values in common units in order to provide a clear comparison between the contamination level and the regulatory limit. D0023-8

9. **Section 5.1.1.1, Page 5-3:** Table 5.1-1 lists frequency of inspections, monitoring, and maintenance for cylinders for 2003-2007. This section must provide clarification that inspection and maintenance activity schedules will be consistent with requirements of the 2003 DUF6 Agreed Order between Kentucky and DOE. D0023-9

10. **Section 5.2.1.4, Page 5-28:** This section discusses wastewater that will be produced during construction, treated prior to release, and discharged to a KPDES permitted outfall or to an existing sewer. It is further stated that dilution will occur once the discharge reaches Bayou Creek and the Ohio River, and therefore contamination of surface water from the discharge will be negligible. This section must be edited to state that the discharge will meet KPDES limits **at the outfall**, regardless of how much dilution is expected to occur downstream. D0023-10

11. **Section 5.2.2.3.1, Page 59:** This section indicates that fugitive dust emission concentrations from conversion will approach the National Ambient Air Quality Standards NAAQS for PM2.5. Elaborate on emission control methods, operational restrictions, or monitoring that will be implemented to assure that the NAAQS are not exceeded. D0023-11

12. **Section 5.2.2.4.1, Page 5-65:** The EIS maintains there will be no process wastewater discharge from the facility during conversion and that all blowdown water would be circulated back into the process with no planned discharges. Thus impacts on surface water are assumed to be negligible. The EIS must address the possibility and impacts of an accidental or emergency discharge of process water or blowdown water that could affect surface water. Please specify the distance to potential receiving waters and possible contaminants of concern. D0023-12

13. **Section 5.2.2.4.1, Page 5-65:** The third paragraph describes an accident scenario in which an earthquake would cause the rupture of an aboveground pipeline carrying liquid HF from the conversion building to the storage building. The scenario assumes that "because response and cleanup would occur within a relatively short time after the release (i.e. days or weeks), the HF would have little time to migrate into the soil. Removal of the contaminated soil would prevent any problems of contamination of either surface or groundwater resources. Therefore, there would be no impacts to surface water or groundwater from this type of accident." If cleanup was impeded by adverse weather conditions, then stormwater runoff and/or infiltration could transport contaminants to surface water or groundwater within a short time. This section must be edited to consider the possibility that such an accident could endanger surface water and groundwater quality. D0023-13

14. **Section 5.2.2.4.1, Page 5-65:** Define the origin and expected constituents of the "sanitary wastewater" that is proposed to be treated in the wastewater treatment plant and discharged to Bayou Creek. D0023-14

15. **Section 5.2.4, Page 5-89:** This section discusses the impacts associated with the use and potential sale of conversion byproducts. However, the discussion fails to consider time periods for storage of the byproducts before disposal or reuse. Estimates of storage times must be given along with consideration of how storage of the conversion products may impact human health and the environment. D0023-15

16. **Section 5.2.4, Page 5-90:** This section does not provide an adequate description of cylinders that might be transported from ETTP to Paducah for conversion. DOE must provide more information regarding contents and contaminants of cylinders compared to the cylinders currently stored at PGDP along with assessment of potential environmental impacts. D0023-16

17. **Section 5.9, Page 5-118:** This section fails to adequately address impacts from future decommissioning and decontamination (D&D) of the facility. Further details must be provided regarding disposal of waste from D&D of the facility, since portions of the waste would likely be classified as hazardous or mixed waste. D0023-17

General Comments:

1. The EIS states that no hazardous wastes will be disposed of or treated on site at the conversion facility, nor will any hazardous wastes that are generated during conversion be stored on site for more than 90 days. Therefore, UDS assumes that no hazardous waste permit will be required. Since DOE does not treat DUF6 as a hazardous waste, the EIS does not evaluate the need to have a hazardous waste permit for converting/treating the DUF6. In addition, the no action alternative considers only LLW and LLMW that would be generated during construction from maintenance of cylinder yards and cylinder painting and scraping operations. It does not consider management of the DUF6 itself as a mixed waste. The Division disagrees with these assumptions, based on Condition 7 in the 2003 DUF6 Agreed Order which states: "The Cabinet (Natural Resources and Environmental Protection Cabinet) alleges that the DUF6 generated by DOE and USEC is a "Waste" as defined by KRS 224.010(31) and is subject to the waste determination requirement in KRS 224.46-510". D0023-18[2]

2. The EIS proposes that if the HF conversion by-product cannot be sold to the chemical industry, it will be converted to CaF_2 for sale or disposal. Generation of large volumes of CaF_2 would have significant impacts on transportation and waste management plans. DOE has not determined whether CaF_2 would need to be disposed of as a non-hazardous solid waste, or a LLW. Additionally, DOE has not determined whether CaF_2 would be considered DOE waste if the conversion was performed by a private commercial enterprise. DOE must edit the EIS to adequately address these issues. D0023-19

3. Comments previously issued by KDWM for the PEIS should be considered applicable to this EIS. KDWM requests that DOE respond to these comments as relevant to the EIS. D0023-20

4. The EIS should be expanded to discuss the potential to accept DUF_6 cylinders from USEC due to continued conversion operations at PGDP, and due to cylinder transport from ETTP. The EIS should discuss the impacts of longer operation and the potential need to increase the size of the Paducah Facility to deal with the additional DUF_6 cylinders. In addition, specify where additional cylinders would be stored in the event that cylinders are transported from ETTP to Paducah for conversion. D0023-21

[2]Comment withdrawn by the Kentucky Division of Waste Management on March 12, 2004 (Hatton 2004).

ERNIE FLETCHER
GOVERNOR

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JAMES W. HOLSINGER, JR., M.D.
SECRETARY

MEMORANDUM

To: **Lori Veal,**
Kentucky Division of Waste Management

From: **Robert L. Johnson, Manager**
Radiation Health & Toxic Agents Branch

Date: **January 29, 2004**

Subject: **REVIEW PADUCAH DUF6 DRAFT ENVIRONEMNTAL IMPACT STATEMENT**

The Radiation Health and Toxic Agents Branch (RHTAB) has completed a preliminary review of the Paducah Draft DUF6 Environment Impact Statement for the HF and CaF2 separation process. The RHTAB's comments are attached and will be further clarified with comment from UK .

Cc: Eric Scott. REMS
Steve Hampson, UK
Tuss Taylor, NREPC

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PADUCAH DEIS Comments
January 29, 2003
Page One

1. **Verification of Compliance with the DOE Public Dose Limit, page E-10, second paragraph.** Please provide a copy of the basis for presumption of compliance decision and how the DOE demonstrated compliance with the a public dose limit of 100 mrem TEDE in a year by limiting the maximally exposed member of the public to 25 mrem.. I have not had the opportunity to review any position determination related to this method of compliance verification and would be interested in reviewing the document before agreeing to the general process identified in the Draft environmental Impact Statement. D0023-22

2. **Characterization of HF and CaF2 Produced during conversion, Page E-5, third paragraph, and Page E.4.1, first paragraph.** Both references indicate Framatome Advanced Nuclear Power, Inc. (ANP) is licensed by the Nuclear Regulatory Commision (NRC). I question DOE's capability to commercially market HF and CaF2 developed during conversion without licensing due to the amount of Uranium present in bulk, even though depleted Uranium. Further research will be required. D0023-23

Document D0024

Central Midwest Interstate Low-Level Radioactive Waste Commission
1035 Outer Park Drive ❖ Springfield, IL 62704 ❖ 217/785-9982

January 29, 2004

OFFICIAL FILE COPY
AMESQ
Log No. 142098
Date Received FEB 3 2004
File Code

Gary S. Hartman
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

Re: The U.S. Department of Energy's Draft Environmental Impact Statements for the Construction and Operation of Depleted Uranium Hexafluoride Conversion Facilities at the Paducah, KY and Portsmouth, OH Sites

Dear Mr. Hartman:

The Central Midwest Interstate Low-Level Radioactive Waste Commission is concerned about the safe management of low-level radioactive waste within the borders of the two-state compact region of Illinois and Kentucky. While the Commission acknowledges that the DUF_6 addressed in these Draft Environmental Impact Statements (DEIS's) is federal waste not subject to the Commission's jurisdiction, it is concerned for its safe management nonetheless and offers these comments on the two DEIS's. Unless specifically noted, the comments contained in this letter apply to both DEIS's.

D0024-1

Section 2.2.4 of the DEIS's states "It is unknown how many DUF_6 cylinders do not meet DOT transportation requirements." This section should reference the LLNL report *Depleted Uranium Management Program; the Engineering Analysis Report for the Long-Term Management of Depleted Uranium Hexafluoride* which estimates that half to all of the DUF_6 cylinders at the ETTP do not meet Department of Transportation (DOT) requirements. Failure to do so might indicate that DOE is trying to understate the magnitude of the effort

Dr. Edward S. Ford, Chairman ❖ Gary N. Wright, Secretary-Treasurer ❖ Philip J. Rock, Commissioner ❖ Marcia S. Marr, Executive Director

Gary S. Hartman
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January 29, 2004

required to render the East Tennessee Technical Park (ETTP) cylinders roadworthy or the need to seek a variance from DOT. D0024-1 (cont.)

As part of the transportation analysis, the DEIS's do not address the impacts to local first-responders who would respond to any transportation accident. Both DEIS's indicate that there will be a significant number of DUF_6 and UF_6 shipments from the ETTP to either Portsmouth or Paducah, possible DUF_6 shipments from Paducah to Portsmouth, and possible DUF_6 shipments from a yet to be developed enrichment facility to one or both of the conversion facilities. D0024-2

The analysis presented exposure scenarios for both low and high consequence accident events. Various assumptions must have been made regarding the nature of these events and the amount of material released to the environment. However, the DEIS's are silent with regard to how these events are managed from a practical perspective. Police, emergency medical personnel and firefighters respond to traffic accidents. What were the assumptions of their ability in terms of training, experience and available resources to deal with these potential accidents? D0024-3

The DEIS's are silent with respect to the need for providing assistance to these first responders. DOE should commit to provide assistance in the form of training and equipment for local first responders along the transportation routes selected for DUF_6 and UF_6 shipments. Without this assistance, some of the low-consequence events could become high-consequence with significant impact to public health and the environment.

DOE has provided "training the trainer" assistance to the Commonwealth of Kentucky, which had the net effect of training over 500 first responders in Kentucky. However, these responders are not physically equipped to respond to a potential transportation accident. DOE needs to provide direct financial assistance to local governments so they may purchase the equipment necessary to respond in case of an accident. Since these shipments would be "campaigned", the specific transportation routes would be defined such that the appropriate governmental entities can be easily identified. In addition, DOE should consider providing this assistance to local governments and first responders located along designated routes for the shipment of hazardous conversion products. D0024-4

Gary S. Hartman
Page 3
January 29, 2004

The DOE should also schedule the DUF_6 and UF_6 shipments such that they would travel in convoys of approximately 10 trucks. This would allow Kentucky to more effectively manage its resources and escort these shipments through the state. D0024-5 With DOE acknowledging that half to all of the canisters at the ETTP do not meet DOT standards, it is incumbent on the state to ensure that these shipments are properly inspected prior to traveling on Kentucky roadways. D0024-6

The Commission thanks the DOE for the opportunity to provide comment on these DEIS's. Any question you may have pertaining to these comments may be directed to Michael Klebe, Illinois Emergency Management Agency, at 217-785-9986.

Sincerely,

Edward S. Ford
Chairman

Document D0025

JAN. 30. 2004 42AM ORDER SERVICE NO. 883 P. 2

MITCH McCONNELL
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SUBCOMMITTEE ON FOREIGN OPERATIONS
CHAIRMAN
RULES AND ADMINISTRATION

January 30, 2004

Mr. Gary Hartman
DOE-ORO Cultural Resources Management Coordinator
DOE Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-2001

RE: DOE/EIS-0359
Draft Environmental Impact Statement for Construction of a Depleted Uranium Hexafluoride Conversion Facility in Paducah, Kentucky

Dear Mr. Hartman:

I understand that DOE is in the process of collecting comments on the Draft Environmental Impact Statement (DOE/EIS-0359) for the construction of the congressionally mandated depleted uranium hexaflouride (DUF_6) conversion facility in Paducah, Kentucky. This is an important step in the process of issuing a Record of Decision to finalize the EIS, which is critical to ensure that the construction of this important facility can begin on time. D0025-1

You may be aware that I sponsored Public Law 105-204 and provisions in Public Law 107-206 that require DOE to construct and operate DUF_6 conversion facilities in Paducah, Kentucky and Portsmouth, Ohio. More specifically, P.L. 107-206 expressly requires that construction of these facilities begin by July 31, 2004, and continue expeditiously thereafter. In recognition of the "two plant" mandate, DOE has completed Draft Environmental Impact Statements for both locations. The Draft EIS for Paducah assesses environmental risks associated with the construction and operation of the facility, related maintenance, and D&D, as well as materials and waste transportation issues.

Each of the sites under consideration for the Paducah conversion plant lie within the confines of the Paducah Gaseous Diffusion Plant reservation, where DOE currently maintains nearly 40,000 aging cylinders of DUF_6. Congress has directed DOE to process this DUF_6 into materials more suitable for long-term storage, use, or disposal. This will remove from Paducah the existing DUF_6 inventory, which currently poses significant inspection, maintenance, and security challenges. D0025-2

It is long past time to remove the environmental and public health threats this waste poses to our citizens. I respectfully urge the DOE to finalize the EIS and issue a Record of Decision so that construction can begin on the Paducah DUF_6 Conversion Facility by the deadline mandated by Congress. D0025-3

Sincerely,

MITCH McCONNELL
UNITED STATES SENATOR

MM/bdb

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FEB-02-2004 16:42 FROM:US EPA REGION 5 312 353 5374 TO:630 252 4611 P.2

Document D0026

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FEB 0 2 2004

REPLY TO THE ATTENTION OF

B-19J

Mr. Gary Hartman
DOE-ORO Cultural Resources Management Coordinator
U.S. Department of Energy- Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

Subject: Comments on the Draft Environmental Impact Statement for the Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility.

Dear Mr. Hartman:

The U.S. Environmental Protection Agency Region 5 (U.S. EPA) has reviewed the Department of Energy Draft Environmental Impact Statement (DEIS) for the Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, Ohio site. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. The CEQ's number for this DEIS is 030540.

The proposed action is to convert the Department of Energy's Depleted Uranium Hexafluoride (DUF_6) inventory at the Portsmouth site to Triuranium Octaoxide (U_3O_8). The EIS assessed the potential environmental impacts from the following construction activities: 1) Construction, operation, maintenance, and decontamination and decommissioning (D&D) of the proposed conversion facility; 2) Transportation of uranium conversion products and waste materials to a disposal facility; 3) Transportation and sale of the hydrogen fluoride (HF) conversion co-product; and 4) Neutralization of HF and Calcium Fluoride (CaF_2) and its sale or disposal in the event that the HF co-product is not sold.

Potential environmental impacts were assessed by examining all of the activities required to implement each alternative. Potential long-term impacts from cylinder breaches occurring at Portsmouth and East Tennessee Technology Park (ETTP) were also estimated. For each alternative, potential impacts to workers, members of the general public, and the environment were estimated for both normal operations and potential accidents.

Because of the chemical and radioactive nature of the materials processed and produced and the fact that the conversion facility would be built on a previously disturbed industrialized site, the potential impact to the health of workers and the public is one of the areas of primary

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concern.

The No Action alternative is the storage of DUF_6 cylinders indefinitely in the yards at the Portsmouth and ETTP sites with the continued cylinder surveillance and maintenance activity. Impacts were evaluated through the year 2039 and potential long-term (beyond 2039) impacts were also evaluated.

Three action alternatives, besides the No Action Alternative, were evaluated. The only difference in alternatives was the location of the plant within the Portsmouth site.

Alternative A, the preferred alternative, has three existing structures that were formerly used to store chemicals. The site has already been environmentally disturbed; therefore no new impacts will be likely to occur.

Alternative location B was considered, but a gas centrifuge plant is now going to be constructed at the site, so that location is not a viable alternative anymore.

Alternative location C consists of a gently rolling grass field and would cause more environmental disturbances than the preferred alternative.

Our comments about the project as described in the DEIS include:

- The three Administrative Consent Orders governing environmental restoration at the Porthsmouth plants should be discussed in the FEIS;

- The cumulative impacts of constructing and operating the newly announced centrifuge facility for uranium enrichment should be discussed in the context of the DUF_6 facility;

- The FEIS should describe DOE's confidence that adequate off-site disposal capacity will exist to accept wastes from the DUF_6 process;

- Transportation of wastes should be more thoroughly discussed;

- The FEIS should be explicit that the Radionuclide National Emissions Standards for Hazardous Air Pollutants (NESHAPS) for DOE facilities will apply to the DUF_6 facility;

- Calculations provided and models cited should use consistent units.

U.S. EPA rates "A," the preferred alternative, **EC-2, Environmental Concerns - Insufficient Information.** Please see the enclosure for a description of U.S. EPA's ratings. An EC-2 rating indicates that our review has identified potential environmental impacts of the proposal that should be avoided to fully protect the environment, and that more information should be provided to fully assess the impacts of the proposal. Our detailed comments are included in an additional enclosure. D0026-8

We appreciate the opportunity to review the DEIS. Please send only three copies of the final EIS to this office at the same time it is officially filed with our Washington, D.C. Office. If

you have any questions, please call Joana Bezerra at (312) 886-6004, or send email to bezerra.joana@epa.gov.

Sincerely,

Kenneth A. Westlake
Chief, Environmental Planning and Evaluation Branch
Office of Strategic Environmental Analysis

Enclosures (2): Summary of Rating Definitions and Followup Action
Detailed Comments

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS sate, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment

USEPA Comments on the Depleted Uranium Hexafluoride Conversion Facility DEIS in Portsmouth, Ohio. **February 2, , 2004**

The Final EIS should indicate that environmental restoration activities at the Portsmouth Gaseous Diffusion Plants (PORTs) are governed by three Administrative Consent Orders: 1) the 1989 Ohio EPA Consent Decree; 2) the 1997 Three Party Administrative Order on Consent (U.S. EPA, Ohio EPA and DOE); and 3) the 1999 Ohio EPA Administrative Order for Integration. A summary and overview of these and other legal orders relevant to PORTs should be provided. D0026-1

On January 12, 2004, USEC, Inc., announced that a new American Centrifuge uranium enrichment plant (ACEP) will be constructed and operated at Portsmouth. The summary section of the Final EIS should address the potential cumulative effects of that new plant will have on the overall environmental impacts of the DUF_6 facility. D0026-2

If the conversion facility will have a role beyond processing the current inventory of DUF_6 and non-DUF_6 cylinders, the Final EIS should address the conversion facility's potentially longer operation period and processing capacity. The EIS should also address the potential for facility upgrades that would accommodate increased processing capacity should the need arise. The concern is whether the EIS is comprehensive enough to accommodate future upgrades to the conversion facility, without having to revisit the NEPA process again. D0026-3

Disposal facilities each have unique waste acceptance criteria (WAC) that dictate what can be accepted for disposal. For what is currently known about the two representative disposal facilities (Envirocare and NTS - Nevada Test Site), and the anticipated profiles of the conversion products (depleted U_3O_8, CaF_2, emptied cylinders), the Final EIS should describe the level to which DOE is confident that the representative disposal facilities have both the WAC limits and the physical capacity to accept what will be an enormous quantity of conversion product waste. D0026-4

The Draft EIS suggested that 2,200 railcar shipments could be sent to NTS. Rail access to NTS and its existing disposal areas currently does not exist. The Final EIS should offer additional discussion of the transportation process and related impacts. D0026-5

When regulatory compliance assurances are provided throughout this document, the Radionuclide National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Radionuclide Emissions for United States Department of Energy (USDOE) Owned or Operated Facilities, found at 40 CFR 61, Subpart H, are not always adequately identified. This outside oversight and compliance demonstration helps to provide the public with the knowledge they are adequately protected under this regulation as long as compliance can be clearly demonstrated. D0026-6

Measurement of parameters in calculations and models cited must be in consistent units to avoid confusion and to better assess the conservatism and adequacy of the methodologies used for evaluating the relative risks for this project. D0026-7

FROM :USEC TO : 630 252 4611 2004,02-02 15:38 #391 P.02/05

Document D0027

USEC
A Global Energy Company

February 2, 2004

Gary S. Hartman
DOE-ORO Cultural Resources Management Coordinator
U.S. Department of Energy - Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

RE: DEIS for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, Ohio Site (DOE/EIS - 0360)

Dear Mr. Hartman:

Attached please find specific comments on the referenced DEIS.

As a general comment, United States Enrichment Corporation (USEC) and the DOE-PORTS office have worked together to address issues at the Portsmouth Gaseous Diffusion Plant (PORTS) for more than 10 years. They coordinate many of their activities to assure appropriate site reporting and response to the various environmental authorities. This close coordination has benefited both DOE and USEC and has assured compliance with applicable environmental requirements. We would be glad to arrange for a meeting at PORTS to discuss the impacts the UDS Conversion Facility may have upon other activities at PORTS and to include those facilities in our coordination of activities affecting the site. D0027-1

Thank you for the opportunity to make these comments.

Sincerely,

T. Michael Taimi
Director, Environmental Affairs

Attachment

USEC Inc.
6903 Rockledge Drive, Bethesda, MD 20817-1818
Telephone 301-564-3200 Fax 301-564-3201 http://www.usec.com

FROM :USEC TO : 630 252 4611 2004,02-02 15:39 #391 P.04/05

USEC
A Global Energy Company

February 2, 2004

Gary S. Hartman
DOE-ORO Cultural Resources Management Coordinator
U.S. Department of Energy - Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

RE: DEIS for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, Kentucky Site (DOE/EIS - 0359)

Dear Mr. Hartman:

Attached please find specific comments on the referenced DEIS.

As a general comment, United States Enrichment Corporation (USEC) and the DOE-GDP office have worked together to address issues at the Paducah Gaseous Diffusion Plant (PGDP) for more than 10 years. They coordinate many of their activities to assure appropriate site reporting and response to the various environmental authorities. This close coordination has benefited both DOE and USEC and has assured compliance with applicable environmental requirements. We would be glad to arrange for a meeting at PGDP to discuss the impacts the UDS Conversion Facility may have upon other activities at PGDP and to include those facilities in our coordination of activities affecting the site. D0027-1 (cont.)

Thank you for the opportunity to make these comments.

Sincerely,

T. Michael Taimi
Director, Environmental Affairs

Attachment

USEC Inc.
6903 Rockledge Drive, Bethesda, MD 20817-1818
Telephone 301-564-3200 Fax 301-564-3201 http://www.usec.com

Draft Environmental Impact Statement comments for *Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility* at the Portsmouth, Ohio, Site

1. Section 2.5 - USEC concurs with the DOE's preferred location (Location A) to construct and operate the proposed DUF6 conversion facility. D0027-2
2. General Comment - Reference to any USEC Advanced Technology siting decisions for the American Centrifuge need to reflect that the siting decision has been made and that PORTS has been selected. D0027-3
3. Section 3.1.3.2 - The Title V air permit for USEC operations has been issued and was effective August 21, 2003. D0027-4
4. Table 6.1 States: "The DUF6 conversion facility would not discharge industrial process wastewater. Therefore, an NPDES Permit for Process Water Discharge would not be required." It is possible that a facility with a wet scrubber, water-cooled heat exchangers, and water spray cooling may have a process wastewater stream. Sanitary water use from daily activity and shower rooms will require discharge through a NPDES permitted treatment process such as the onsite USEC operated process. It is likely that UDS will be required to obtain a NPDES permit that will require an internal monitored outfall before discharging into the USEC X-6619 permitted sewage treatment plant. D0027-5
5. Section 3.1.6.2 states "greater biological diversity exists upstream of the plant discharges than downstream." This is not consistent with the following Ohio EPA reports that state: "aquatic habitat quality in Little Beaver Creek declines upstream of PORTS discharges due to low and/or intermittent water flow." D0027-6
   - *Biological, Fish Tissue and Sediment Quality in Little Beaver Creek, Big Beaver Creek, Big Run Creek and West Ditch, Piketon Ohio.* May 24, 1993, OEPA Technical Report EAS/1993-5-2
   - *Biological and Water Quality Study of Little Beaver Creek and Big Beaver Creek – 1997*, June 4, 1998, OEPA Technical Report MAS/1998-5-1
6. General Comment: There is no specific reference as to how waste material with radionuclides other then uranium will be addressed. In particular, heels material is likely to contain TRU, and long-lived thorium isotopes (^{228}Th, ^{230}Th, ^{232}Th). The EIS needs to address containment and contamination control of this material. D0027-7
7. General Comment: There is no specific reference to how Radionuclide NESHAPs will be implemented. UDS needs to consider how they will quantify their radionuclide emissions and how they will coordinate their annual reporting with other site residents. Currently the Radionuclide NESHAPs dose limit applies to the site as a whole. If UDS pursues a "go it alone" approach, then USEC and DOE will be UDS's public and UDS will be USEC and DOE's public for whom dose needs to be determined. D0027-8
8. Table 6.1 States: "UDS will prepare and submit an Annual Hazardous Chemical Inventory Report each year, if hazardous chemicals have been stored at the DUF6 conversion facility site in amounts that exceed threshold quantities during the preceding year." Chemical threshold quantities are derived from the aggregate of all Reservation residents. Currently DOE provides USEC a monthly chemical inventory list of materials managed by various DOE Sub-Contractors resident on site. USEC compiles the lists monthly to determine if a threshold quantity has been exceeded. USEC then files the Annual Hazardous Chemical Inventory Report for the site. D0027-9

DOE/EIS 359 Comments

Section	Comment/Recommendation	
General Comments	HF production is discussed in several areas but emissions are not addressed. USEC's current air pollution permit contains limits on HF emissions that utilize the full allocation for the site. The EIS should address how HF emissions are to be treated or include a zero emission plant design.	D0027-10
	There is no specific reference as to how waste material that includes radionuclides and long-lived thorium isotopes other than uranium will by handled. USEC experience indicates transuranics and technetium may remain in the heel material after transfer of UF_6 from the cylinder, especially in cylinders that were previously used for handling of reactor returns. The EIS should address waste material containing transuranics and technetium.	D0027-11
	There is no specific reference to how radionuclide NESHAPs will be implemented. Currently radionuclide NESHAPs dose limit applies to the site as a whole. If UDS pursues a stand-alone approach, then USEC and DOE will be UDS's "public" and UDS will be USEC's and DOE's "public" when calculating and reporting dose to the public. The EIS should address the method of compliance with 40 CFR 61 regulations.	D0027-12
	Reference to any USEC Advanced Technology siting decisions for the American Centrifuge should reflect that the siting decision has been made and that the Portsmouth Gaseous Diffusion Plant site has been selected.	
S.5.4, Table 5.6, 3.1.3.3	The EIS indicates emissions of particulate matter from construction activities may exceed ambient air quality standards. Control measures will be applied to minimize the particulate emissions. The EIS should address any air or water quality impacts from applying the particulate matter control measures.	D0027-13
Fig. 2.2-2	Process descriptions indicate the addition of nitrogen and ammonia to the systems but do not mention whether NOx will be generated in significant quantities. The EIS should discuss the impact of introduction of nitrogen bearing compounds.	D0027-14
S.5.16	The cumulative radiological exposure as compared to the DOE limit is discussed but there is no mention of exposure compared to 40 CFR 61 and 40 CFR 190 limits. The EIS should discuss compliance with EPA limits on radiological exposure.	D0027-15
3.1.3.2	USEC does not have a Title V Permit. Sentence should be revised to so indicate.	D0027-16
3.1.9, 5.3.2	USEC does not manage the DOE DUF_6 cylinders and therefore does not handle waste generated from those processes. Delete these references.	D0027-17
5.2.1.4.1	The EIS indicates water is used during construction and that wastewater will be treated at the wastewater treatment plant. The wastewater treatment plant is not shown in process schematics. The EIS should be specific on where the wastewater will be treated and indicate on process drawings.	D0027-18
Table 5.2-15	This Table mentions 24 hour concentrations of HF associated with operations of the facility. The KDEP standard is base on a 12-hour concentration. The EIS should discuss compliance during normal operation and during accident conditions with the KDEP 12-hour limit.	D0027-19
Table 5.2-19 and Table 5.6-3	The amount of fuel and natural gas listed in these tables are not included in the general process discussions of air emissions and permitting. The EIS should discuss this issue.	D0027-20
Table 6-1	This Table indicates UDS will prepare an Annual Hazardous Chemical Inventory report each year. Chemical threshold quantities are derived from the aggregate of all residents on the DOE Reservation. Currently DOE provides USEC a monthly chemical inventory list of materials managed by various DOE sub-contractors on site. USEC then compiles the list to determine if a threshold quantity has been exceeded. The EIS method should address the current practices and how compliance will be demonstrated for the site.	D0027-21
	This Table indicates the DUF_6 conversion plant will not discharge process wastewater and therefore will not need a NPDES permit. USEC experience has been that a wet scrubber, water-cooled heat exchangers and water spray cooling will have a process waste stream. The EIS should address how these waste streams are to be treated or indicate a discharge permit will be required.	D0027-22

2/2/04 VJS