Document D0028

LOC INC
Oak Ridge Reservation
Local Oversight Committee

February 2, 2004

Gary Hartman
U.S. Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831

Subject: Draft Environmental Impact Statements (DEIS) for the construction and Operation of Depleted Uranium Hexafluoride (DUF6) Conversion Facilities at the Paducah, KY and Portsmouth, OH sites (DOE/EIS-0359 and -0360)

Dear Mr. Hartman:

The Citizens' Advisory Panel (CAP) of the Oak Ridge Reservation Local Oversight Committee, Inc. (LOC) concurs with the preferred alternatives presented for the two DEISs. D0028-1

The CAP's special concern is the removal of the DUF6 cylinders from East Tennessee Technology Park (ETTP). We are pleased that this action is to be completed by 2008 prior to the deadline imposed by the Tennessee Department of Conservation and Environment Commissioner's order and so that the accelerated cleanup of ETTP can be accomplished in a timely manner. D0028-2

The cumulative impact portion of the Portsmouth DEIS should be updated to reflect the decision to site the centrifuge plant at Site B. D0028-3

We are pleased to have the opportunity to comment on these documents. If you have any questions, feel free to contact the LOC office at 483-1333.

Sincerely,

Norman A. Mulvenon

Norman A. Mulvenon
Chair, LOC Citizens' Advisory Panel

cc: LOC Register
LOC Board
LOC CAP
Steve McCracken, Assistant Manager for EM, DOE ORO
William Murphie, Manager, Portsmouth Paducah Project Office
John Owsley, Director, TDEC DOE-O
Pat Halsey, FFA Coordinator, DOE ORO
Amy Fitzgerald, City of Oak Ridge
David Mosby, Chair, ORSSAB

Document D0029

From: Vina Colley [vcolley@earthlink.net]
Sent: Tuesday, February 03, 2004 4:50 PM
To: DUF6_Ports
Subject: Testimony for the record..

Thank you for the opportunity to testify about the DU conversion plant. *Facility Accidents Involving Radiation or Chemical Release* on page 2-29 (2.4.2.2.2) DOE/EIS-0360 Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility dated December 2003. D0029-1

Under the alternative, it is possible that human-error could cause an accidental release of more deadly radiation and toxic chemicals into the environment affecting both the workers and the general public. For the Piketon,OakRidge and any other plant to ship these cylinders off-site and continue moving these cylinders around, whether by train or by truck, not only provides the terrorists with a moving target as well as increases the threat of nuclear terrorism. We shouldn't ship these potential "dirty bombs" of poisonous hazards waste cylinders because there will be unnecessary risks of exposure to the workers and the public. . D0029-2

Many of these cylinders contain plutonium (PU) and Neptunium NEP in them any many other Transuranic elements. Past history has also revealed shoddy record keeping at the Piketon plant. We find the records on these cylinders often disappear or the government simply fails to follow necessary safety precautions, which can cause even more serious problems once these depleted uranium (DU) cylinders become heated up. D0029-3

Furthermore, where will we put all the toxic waste? How many more people will ultimately be contaminated with PU and NEP and many other daughter products? Who will want to store such nuclear waste? And how much more waste from these potential "dirty bombs" will be left over, which further increases the threat of nuclear terrorism? The scope of this work is to push forward into unknown territory. Performance at the Piketon plant over the past 50 years has been based solely on government secrecy and lies. Recent statements being made by government contractors vying to build two new plants at Piketon is also base on similar lies that we've all heard before.

Telling local schools teachers, media and all local business owners that these new jobs will be safe and better than before is simply another LIE! The truth is we the people of the United States are engaged in a war on terrorism. The government has even lied to us about why we were going to war against Iraq (there were no weapons of mass destruction in Iraq). We are Americans and we have the right to know the truth about health hazards and other potential threats that the promise of these new jobs will bring with them into Piketon, into each of our communities, even into our very own backyards! D0029-4

Many of you know what serious harm will come from the DU conversion plant or from the Centrifuge, but some of you don't. If the Piketon community will still be operating a nuclear waste storage facility then everyone in the Piketon community should be told the truth that the Portsmouth Gaseous Diffusion will be a conversion waste storage plant. In the end you can expect to find little work, but more toxic, hazardous chemicals coming through our area and contaminating our community. We might suggest that as a sign of good faith that the government buys up the homes leading into the plant if they still intend to build these two hazards plants. D0029-5

It is high time for the DOD/DOE to abandon their Nazi mentality and remember their crimes against humanity. Thousand of American workers that you lied too became made sick as if Piketon was a Nazi concentration camp and we were your holocaust victims. The ghosts of thousands of former plant workers and eventually the ghosts of those who are now dying after deadly exposures from the Portsmouth Gaseous Diffusion plant will certainly come back to haunt you in the end. Not only here, but at other DOE/DOD site across this country! If you don't believe in God and the Day of Judgment, the Devil and hell, you and your families will have an eternity to think about your crimes against humanity. D0029-6

Cancer and heart problems around the Portsmouth Gaseous Diffusion plant are extremely high. Thousands of community residents have not been given any compensation for their cancers or other radiation-induced illnesses, either. Like the Nazis, you shall stand before God Almighty with their blood on your hands too.

Additional threats that the Piketon plant poses include several earthquake tremors (at least 5-7 on the scale) that we have had. We live in a flood plain zone. Tornados have also been known to touch down within a couple miles from the Portsmouth Gaseous Diffusion plant, too. Any of these so-called "acts of God" can certainly cause the Piketon nuclear facility to explode like Chernobyl. D0029-7

Two aquifers beneath the Piketon nuclear plant supplies our groundwater. One is shallow and the other aquifer is D0029-8

deep. DOE reports the shallow aquifer is contaminated, with (TCE)***trichloroethylene*** being the main contaminant of concern. The other aquifer is not of sufficient volume to be a source of drinking water. DOE maintains that no groundwater has migrated offsite, which we know to be a bare face lie. Arguments similar to these were used at the Pantex plant in Texas, where a shallow"perched" aquifer was supposedly confined, but has since been found to be leaking into the much larger Ogallala aquifer, despite DOE's earlier false assurances to the American public that all is safe. (TCE) trichoroeyhylene is contaminating the Ogallala Aquifer, which was outlined in the Radioactive Waste Management Associate groundwater report February 2002 on groundwater movement of the Portsmouth Gaseous Diffusion Plant. D0029-8 (cont.)

Below is a few reason that the Portsmouth Gaseous diffusion should be investigated before we bring more nuclear jobs to Piketon, Ohio. DOE/DOD haven't even address the off site problems from the past 50 years of production yet. D0029-9

The report of Groundwater Movement at the Portsmouth Gaseous Diffusion Plant by Marilynn dela Merced, Beat Hintermann and Marvin Resnikoff for the Uranium Enrichment Project and PRESS February 2002 should be thoroughly investigated before anyone should begin pushing the idea of creating more dirty jobs for the area..We will need to have independent scientists looking at the problems here first in order to hold someone within the U.S. government, within the Piketon nuclear plant accountable before beginning construction of the Depleted Uranium Hexafluoride Conversion Facility at Piketon, Ohio. D0029-10
We will also need to look much closer at the on site and off site contamination problems from the past 50 years of productions at the Piketon plant, too.
POTENTIAL COMMUNITY HEALTH THREAT POSED BY RADIATION IN CREEK FLOWING FROM PORTSMOUTH GASEOUS DIFFUSION PLANT IN PIKETON, OH. Dr. Paschenko has collected over 100 samples of water and soil around the plant, which will be analyzed in SSGR's laboratory in the coming months. However, in the first stage of analysis, Paschenko discovered levels of beta activity in samples of foam that were at least 100 times higher than normal background radiation levels. This foam was collected in a creek that flows from the plant grounds along border of the community residents. We need more time to bring others into Piketon for additional independent studies in order to hold DOE and other government officials accountable. D0029-11

Members of (PRESS) Portsmouth/ Piketon Residents for Environmental Safety and Security have asked the Ohio Environmental Protection Agency (OEPA) and the company managing the Portsmouth Gaseous Diffusion plant many times to please post warning signs along the creeks that surround the Portsmouth Gaseous Diffusion plant located in Piketon, Ohio. Still to this day THERE ARE NO SIGNS! This alone is hard core evidence that clearly proves the OEPA blatant disregard for the value of human life and raises some serious concerns about their role as protectors of environmental safety. D0029-12

(PRESS) Portsmouth/Piketon Residents for Environmental Safety and Security have only used documents from the Portsmouth Gaseous Diffusion plants to publicly present every story about the problems at the Piketon, Ohio plant. Stories about the "Plutonium" which the company managing the Portsmouth Gaseous Diffusion plant consistently denies having on site, for example. Workers nationally at the DOE/DOD plants now have a compensation bill called EEOICPA. This bill is paying some cancer victims but not all cancer victims nor all illness. PRESS is asking for an audit and investigation of the Portsmouth Gaseous Diffusion Plant as well. If the recent findings of Sergie Paschenko, a well known Russia physicist, are validated community concern will quickly escalate. D0029-13
Once again this will provide additional hard-core evidence of the OEPA blatant disregard for the value of human life. Residents of the local community have not been informed that they have problems.
Furthermore, the site alert/alarms have not been sounded at the time of negative release of gases. On March 7, 1978 a 14 ton cylinder filled with liquid uranium hexafluoride was being hauled to a cooling site by straddle and lift cylinders. The cylinder lost over 21,00.00 lbs of uranium hexafluoride passing through a hole in the cylinder. The alarm should have sounded, but didn't! Again in August of 1980 the Cleveland Plain Dealer reported that: 2,500 pounds of uranium was lost down the west drainage ditch, which also collected "essentially all the uranium that precipitated from the plume". About 1,500 pounds of uranium escaped from the ditch into the nearby Scioto River.
The Cleveland Plain Dealer reported that at least 43 workers were known to have become contaminated. Goodyear officials speculated that most of the URANIUM HEX-A-FLUORIDE reacted with moisture in the air (FORMING HYDROGEN FLUORIDE - A POTENT ACID CAPABLE OF EATING THROUGH GLASS AND URANYL FLUORIDE) another uranium compound. In 1992 while moving and painting the Deplete Uranium cylinders a valve was D0029-14
broken. This cause more material to become airborne. Again there were NO ALARMS for community awareness.

Below are a few reports of the many off-site problems. The Portsmouth Gaseous Diffusion in Piketon, Ohio scored 54.6 for the NPL superfund. A minimum score of 28.5 score suggests it should have be placed on the Superfund. Portsmouth has never been placed on the NPL listing. D0029-15

Columbus Dispatch Feb 7, 1993
Michael B. Lafferty reported that the fish in streams surrounding the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio have elevated levels of radiation according to an Ohio Environmental Protection Agency (EPA). The report was written in April of 1992 but was not released until the Dispatch asked for a copy for his story in 1993. The report stated the most comprehensive state evaluation of radiation and chemical pollution surround the nuclear fuels plant. Further example suggests the Plant's uranium hexafluoride is concentrated into a more radioactive form for use as fuel in reactors like those on submarines. Bomb grade uranium was process from 1954 until at least 1991or 92.

The dispatch further reported that tissue from fish around the plant have elevated levels of radiation. Stream sediments also displayed radiation levels FIVE TIMES above the acceptable levels. There were also increased levels of arsenic, cadmium, chromium and mercury.

At one measured site on Little Beaver Creek in Southern Ohio. The total uranium levels were twice the level at which normally corrective action are required.

In total, the test samples were collected at 18 sites in the Scioto River , Big Beaver and Little Beaver Creeks, Big Run and at the water course referred to in the report as Nursing home road. D0029-16

The EPA representative said in the 90's that there was a strong indication that radioactive and chemical pollutants would cause future problems. Biologists have been concerned about the uranium and heavy metals found in Little Beaver Creek. Most of the year, particularly during summer, wastewater from the plant supplies almost all flow into the streams.The EPA report also said they found radioactivity may be the results of the radioactive isotope potassium 40, which is considered an abnormally RADIOACTIVE substance that accumulates in bones like Strontium-90. Radiation could be the result of widespread technetium 99 contamination at the Portsmouth Plant, too. Bernie Counts speculated the heavy metals may be suppressing some insect populations as well.

Finally, the EPA report says heavy metals in the sediments were also at high concentration levels. The highly elevated concentrations of chromium, (about 72 parts per million) and also mercury (0.24 parts per million) were found where BiG Beaver Creek empties into the Scioto River and then into the OHIO RIVER, which is a primary source of drinking water for millions of unwitting Americans residing in cities further downstream, from Cincinnati all the way to New Orleans!

Vina Colley former worker and president of PRESS and National Advocate co-chair for National Nuclear Workers For Justice..

Document D0030

February 2, 2004

Gary Hartman
U.S. Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

Public Comment in the matter of:
Draft Depleted Uranium Hexafluoride (DUF-6) Conversion Facility EISs

Comment Period Ends:
February 2, 2004

Please include the following questions and comments as part of the permanent file.

Charles Jurka
RT 3, Box 265A
Golconda, IL 62938

Vicki Jurka
RT 3,Box 265A
Golconda, IL 62938

Questions and Comments:

1. Pages 2-19 & 20: A proposed enrichment facility in New Mexico is attempting to broker a deal giving DOE responsibility for conversion of their DUF-6; for services similiar to those DOE provides USEC. This DEIS (Paducah) bases its assumptions on a 25 year operational period with a maximum 20,000 tons/yr (DUF-6) throughput. Should USEC and the New Mexico company divide future conversion needs between Paducah and Portsmouth, many of the already marginal assumptions, regarding human health and the environment, would become invalid either in terms of time, throughput, or both. Rumors persist that plans are already underway to increase the capacity of the Paducah conversion plant beyond the four parallel conversion lines. D0030-1

2. Page 4-11 (last para.): Many hypersensitive individuals were "created" due to an initiating dose that changed their normal immune response. D0030-2

3. Page 4-11 (last para.): A pregnant woman exposed during an "accidental" release may show no adverse response herself; inatead passing the toxic effect to the fetus. D0030-3

4. Page F9 (F.1.2): When addressing the chemical impacts of hydrogen fluoride, on human health, one important aspect, not considered in this DEIS (Paducah), is the propensity of inhaled HF to damage the heart and arteries once absorbed into the blood stream. For instance, the latent effects, for the general public, from the action of HF (fluoride) on the heart and vascular system could be considerable when calculating a dose of 0.02mg/kg-d (168 hours per week) over a 25 year period. Low doses of fluoride entering D0030-4

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the body, over a long period of time, might also produce arthritic conditions from the calcifying action on joints.

Also unclear is whether total regionally-emitted "fluoride" was considered when determining potential dose to the general public. One might expect that the coal buring plants, identified in Table 3.1-2 (page 3-7), would be additional regional-sources of fluoride emissions as well as PGDP and the Honeywell plant in Metropolis, Illinois. Further, in this instance, an important consideration should be the extent and duration of past fluoride exposure, for general public, living within 10 miles of PGDP. It is also unclear as to whether the HF dose-rate of 0.02mg/kg-d applies to all of the general public residing within the targeted 50 mile radius or to public in an unidentified radius. One would expect the impact to be greater the closer one lives to the plant. D0030-4 (cont.)

Low doses of fluoride entering the body over a long period of time might also produce generational effects.

5. Page 5-63: "Total maximum estimated concentrations for PM 2.5 would approach NAAQS and SAAQS..." What is the anticipated composition (metal, chemical, radiological) of that PM 2.5 (microns), expected to be released to air during normal plant operations? The character of the respirably sized particle is important when considering its potential to adversely impact human health. For instance, respirably sized particles of U_3O_8 could represent a significant pathway for radiation exposure if inhaled into the lungs or absorbed into the gastrointestional tract, through contaminated foodstuff. The health risk for PM 2.5 does not alone lie in the airborne levels but also in the duration that particle remains in the body and the effect it has on cell structure and activity. Also, due to the size of the particle and the anticipated high-release levels this DEIS (Paducah) should have assessed a terrain dispersion model that included cumulative levels of particulates and their re-entrainment. D0030-5

6. Page B-7 (B.5): "...potential impacts of any TRU and Tc contamination would be the greatest in cases involving accidents during...handling of the cylinders and during the management of wastes associated with the cleaning and disposition of empty cylinders." (B-9) "...doses...attributed to TRU and Tc-99 found in the heels...can be relative high compared to uranium doses." Page 2-36 (2.4.2.8) "Current USD plans are to leave the heels in the emptied cylinders...and either (1) crush the cylinders..." Page 2-14 (2.2.2.6) This section presents an option for compacting and sectioning emptied cylinders still containing heels.

The option to crush and section cylinders in the manner presented on page 2-36 provides no explanation as to whether protective measures were incorporated into that process ; that would protect workers from exposure to "free" TRU or grouted TRU. This DEIS (Paducah), in general, fails to consider worker health with respect to handling cylinders. D0030-6

Page B-6 (B.4) "...UDS is now planning to fill the emptied cylinders with the depleted U_3O_8 product..." We agree this would be the preferred option and suggest the heels be stabilized with grout prior to refilling. We do disagree however that the U_3O_8 is "product": it is waste. Also, if the crush and cut option is still valid, this DEIS needs to present a clearer

view as to how the TRU in the heels will be contained during processing. D0030-6 (cont.)

7. Page E-7 (E 3.1): Does the figure of 70% include all the aqueous hydrogen produced at both conversion plants? D0030-7

8. The nominal wall thickness for DUF-6 cylinders is 312 mils.. Ultrasonic measurements for the thickness of cylinders in storage at ETT and Paducah have shown that corrosive actions have reduced that thickness, in many instances,to less thanhalf. DOE guidance recommends that a minimum cylinder wall thickness of 250 mils is "required" for safe handling and transporting cylinders. Studies have determined 3mils per year would be a normal rate of corrosive reduction in cylinders. At that rate, cylinders over 25 years old would already have wall thicknesses below the"safe level" of 250 mils, thus presenting a hazard when handling and shipping. Further, previous inspections of cylinders stored on the ground have found that areas in contact with the ground experienced greater corrosion rates. Other cylinders have not been inspected to assess wall thickness due to the storage configuration. It is our opinion that this DEIS (Paducah) has not adequately considered the conditions of the cylinders and the associated risk(s). D0030-8

9. Page F-21 (F.3.1): In the past river transportation was explored as an economical option for transporting cylinders from ETT. This DEIS did not analyse the risks associated with that mode of transportation. D0030-9

10. Will the calcium fluoride produced at the conversion plant be a granular form or a fine powder? D0030-10

11. The Depleted UF-6 Final PEIS expresses Hydrogen Fluoride in terms of anhydrous while this DEIS (Paducah) expresses it as aqueous. Please explain the reason for this change. D0030-11

12. Perhaps we overlooked it, but we do not recall any information in this DEIS (Paducah) detailing annual use, storage, or transportation of anhydrous ammonia. It is apparent that anhydrous ammonia (page 2-12, 2.2.2.3) is an important component of the conversion process that will pose its own set of hazards.

    Page 5-117 (Table 5.6-2): 10,000 tons of nitrogen gas (N_2) will be consumed annually during the conversion facility operations" (Paducah). Page 2-12 (2.2.2.3): "Nitrogen...a purging gas and is released to the atmosphere...the clean off-gas stream." D0030-12

    Pages 5-59 through 61 (5.2.2.3.1): We are unsure as to whether all nitrogen referenced as an off-gas is a by-product of hydrogen generation from anhydrous ammonia. We are also unsure as to whether all 10,000 tons are expected to be released to air. Another uncertainity is whether this excess nitrogen, free for oxidation, was included in total NO_x emissions from conversion facility operations.

13. Page 5-65 (5.2.2.4.1): Water withdrawn from the Ohio River would approximate 57 million gallons per year. 4,000 gal/d would be released to surface water with the remainder of the withdrawn-water recirculated back D0030-13

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into the process. Assuming this were true, there would be an enormous net water gain somewhere in the system or a lot of potentially contaminated water would be vented as steam from the cooling towers and other plant processes. This DEIS (Paducah) needs to better account for water usage/ disposal. D0030-13 (cont.)

14. Page 5-69 (line 11): incorectly references Table 5.2-18 for Table 5.2-17 D0030-14

15. Page 3-15 (3.1.5.1): This sets the current water use at "approximately 15 million gal/d." However, a January 9, 2004 report entitled Paducah Water Balance Analysis (PGDP,CAB-Water Task Force) sets the total average water flow in at 11.9 million gal/d.

    Page 3-15 (3.1.5.1): This states that"during most of the year, most of the flow in both streams (Bayou & Little Bayou) is derived from plant effluents" and that the average discharge to the Ohio River...is about 4.1 million gal/d. However, the Paducah Water Balance Analysis puts the water flow out (accounted for) at 10.54 million gal/d. D0030-15

    In this draft DEIS (Paducah) the difference in the ratio of water in to water out is significant. Since the Water Balance-water flow in figure is reflective of the unaccounted for (DEIS) water out this DEIS needs to reconcile water in/water out with water use/ water disposal.

16. The ATSDR Public Health Assessment for Paducah Gaseous Diffusion Plant... May 2002 (pg. 52), identifies thallium as "the contaminant of concern" found in surface water at PGDP. While this DEIS (Paducah) discusses PCB and Uranium as surface water/sediment contaminants, it fails to consider thallium; a significant pollutant, injurious to human health. D0030-16

17. The combined effect of pollutants is frequently understated in documents such as this (DEIS). One of the reasons often provided is the lack of studies regarding additive, synergistic, or cummulative actions. However, the synergistic interaction of airborne hydrogen fluoride with sulfur dioxide has been well researched. This DEIS (Paducah) anticipates the release of HF to air from the DUF-6 conversion facility (page 5-61, Table 5.2-15) and describes fairly high sulfur dioxide emission levels from major sources around the Paducah site (page 3-7, Table 3.1-2).This DEIS has not considered the greater adverse-effects expected from the synergistic action of these two pollutants. D0030-17

18. Page 5-69 (re: on site disposal): The permitted life of the on-site C-746-U landfill is less that the expected 25 years of conversion operations. The Acclerated Clean-up Plan waste volumes for PGDP also exceed the permitted capacity of that landfill. The C-746-U landfill is owned by DOE. If Uranium Disposition Services, LLC is a private/stand alone company, ultimately responsible for products produced as well as waste generated, disposal in the C-746-U landfill should be fee based, identical to any similiar landfill. THE C-746-U LANDFILL IS A VERY CONTENUOUS COMMUNITY ISSUE. D0030-18

19. Past "self regulation" of PGDP, by DOE, has ultimately created an extreme example of a Superfund site that will remain a toxic legacy for generations to come. Uranium Disposition Services, LLC (Paducah) should be the owner/ operator of the conversion facility;responsible for all air, water,and land permits. D0030-19

Thank you

Document D0031

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

BETSY L. CHILD
COMMISSIONER

PHIL BREDESEN
GOVERNOR

January 30, 2004

Gary S. Hartman
U.S. Department of Energy
Oak Ridge Operations
PO Box 2001
Oak Ridge, TN 37831

RE: Depleted Uranium Hexafluoride EIS

Dear Mr. Hartman:

Please find enclosed the comments on the Draft Environmental Impact Statements concerning the facilities at Paducah and Portsmouth. I am writing to emphasize two points. The Department of Energy is under a final Order regarding the depleted uranium hexaflouride (DUF6) cylinders at the East Tennessee Technology Park in Oak Ridge. That Order requires that all of the cylinders be removed by December 31, 2009. All actions of the Department of Energy, in regard to the cylinders, should be consistent with that deadline, including the statements in the Environmental Impact Statement. The other issue is that at this time we support the option of over-packing any cylinders that do not meet DOT transportation requirements. We do not view any other option as having been adequately studied or evaluated in a NEPA process.

D0031-1

D0031-2

Sincerely,

Karen H. Stachowski

Karen Stachowski
Deputy Commissioner

Encls.

Cc: John Owsley

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Document D0032

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DOE OVERSIGHT DIVISION
761 EMORY VALLEY ROAD
OAK RIDGE, TENNESSEE 37830-7072

January 23, 2004

Gary S. Hartman
U.S. Department of Energy
Oak Ridge Operations
PO Box 2001
Oak Ridge, TN 37831

Dear Mr. Hartman

Draft Environmental Impact Statement (DEIS) for a proposal to Construct, Operate, Maintain, and Decontaminate and Decommission a Depleted Uranium Hexafluoride (DUF6) Conversion Facility at Portsmouth, Ohio and another at Paducah, Kentucky, DOE/EIS 0359 and DOE/EIS 0360, respectively

The Tennessee Department of Environment and Conservation, DOE Oversight Division (TDEC/DOE-O), has reviewed the above subject documents in accordance with the requirements of the National Environmental Policy Act (NEPA) and associated regulations of 40 CFR 1500-1508 and 10CFR 1021 as implemented. The Tennessee Emergency Management Agency also concurs in these comments.

General Comments:

The state of Tennessee concurs with the proposed action for managing the ETTP cylinder inventory. We defer comments on siting and operational alternatives at DOE Paducah and DOE Portsmouth to the commonwealth of Kentucky and the state of Ohio respectively. D0032-1

We do not expect to compromise environmental quality in another state in order to benefit our own. We will continue to talk about UF_6 with Ohio and Kentucky like we have for the past several years. D0032-2

The DEIS documents were reviewed with the Tennessee Consent Order No.97-0378-H0023 Part IX of the Uranium Hexafluoride Management Plan in focus, which states *"By (July 31, 1999), DOE shall issue its record of decision (ROD) for the final Programmatic Environmental Impact Statement for Alternative Strategies for the long-term management and Use of Depleted Uranium Hexafluoride (PEIS). Unless DOE selects the no action alternative in the ROD, DOE* D0032-3

shall either remove all known DUF_6 cylinders and their contents from ETTP or complete the conversion of the contents of the cylinders by (December 31,2009). In this event, DOE may undertake additional National Environmental Policy Act reviews (EAs/EISs) in order to implement the alternative selected in the ROD. Within 60 days of completing any such further NEPA reviews as may be necessary to implement the selected long-term management strategy, DOE shall submit a plan containing schedules for activities that will ensure removal of all known DUF_6 cylinders and their contents from ETTP or conversion of the contents of such cylinders will be completed by December 31, 2009. The schedule contained in the plan shall be considered an enforceable provision of this Agreement." These documents should state that DOE shall submit this schedule within 60 days of completing this EIS. Any associated references (summaries, etc) should be changed accordingly. D0032-3 (cont.)

Specific Comments:

Section 1, Introduction, 2.1 No Action Alternative, 2.4.1 General: Both EIS's evaluate a no action alternative that assumes continued storage of cylinders at Portsmouth, Paducah, and ETTP. These documents should state that the Tennessee Consent Order requires conversion or removal of UF_6 cylinders from ETTP by the end of 2009 because DOE did not select the no action alternative in the PEIS ROD of April 1999. D0032-4

Section 1.2.1, Table 1.1-1 Inventory of DOE UF_6 Cylinders Considered in This [sic] EIS: The tables list the proposed action for shipment of all ETTP cylinders to Portsmouth. According to the table this includes 584 empty cylinders. Most of these empty cylinders have already been shipped to NTS. Some empty 48-inch cylinders remaining at ETTP will probably be shipped to Portsmouth. The table is footnoted to show that the numbers are as of April 30, 2003. Updated data should be used in the final Portsmouth and Paducah documents. D0032-5

Section 2.2.4 Preparation and Transportation of ETTP Cylinders, Pg. 2-18; Section 5.2.4 Cylinder Preparation Impacts at ETTP. The statement is made in 2.2.4 that "It is unknown exactly how many DUF_6 cylinders do not meet DOT transportation requirements." In 5.2.4, the evaluation referenced in the DUF_6 PEIS (DOE 1999a) indicates that 50% to 100% of the ETTP inventory would not meet DOT requirements. The current documents should be updated to show the number of DUF_6 cylinders that will be shipped initially without extra preparation such as overpacks or transfer of contents. D0032-6

Section 2.2.5, Preparation and Transportation of ETTP Cylinders to Portsmouth, Page S-21, Second Paragraph, Line 8: There are "no current plans" for a new cylinder transfer facility at ETTP. If such a facility was to be further considered, the state of Tennessee would expect to be notified through the NEPA process of such plans as soon as they reach the stage of serious consideration. Due to the nature of the operation (purging of deteriorating cylinders, and subsequent refilling of more substantial cylinders) the environmental risk posed by this type of facility to the environment of the state of Tennessee and the East Tennessee Technology Park has the potential to be substantial. The state of Tennessee requires that the cylinders be shipped in a DOT-compliant manner using over-pack containers, if necessary. This applies even if the cylinders are shipped by a different mode of transportation to Paducah. D0032-7

Section 2.3.5, Other Transportation Modes, Page 2-25: Due to the difficulties cited by the document with air and barge transportation, it appears that these modes of transportation are not being seriously considered. If this situation changes, the state would expect adequate NEPA review in order to assess risks associated with those methods. D0032-8

Section 2.4.2.3, Human Health and Safety – Transportation: – This section shows the two highest potential accidents to involve either NH_3 or HF shipments. It should be expanded to show that there is also transportation risk connected with shipping UF_6 cylinders from ETTP to the selected conversion sites. D0032-9

Section 3.2.7.1 Radiation Environment, Page 3-56, Line 3: states that *"radiation exposure of the general public MEI (Maximally Exposed Individual) is estimated to be 6.7 mrem/yr. This dose is about 7% of the maximum dose limit of 100 mrem/yr set for the general public (DOE 1990) and much smaller than the average dose from natural background radiation in the state of Tennessee. The actual radiation exposure of the general public would be much lower that the estimated maximum value."* The state would like to point out that these dose estimates to the general public provided by the document are very scenario-dependent. The state's UF6 Cylinder Yard Monitoring Project recorded a 2002 direct gamma dose of 9,539 mrem/yr at the fence line of the K-1066-L yard. While the state's dose measurement in this instance is the result of continuous monitoring (twenty four hours per day, 365 days) and reflects direct gamma dose only, the relative openness of the ETTP site to co-located workers from private companies, and the plans to further open the ETTP site to the public leave many previous assumptions about dose estimates in question. D0032-10

Section 5.2.3.1.1 Radiological Impacts, Page 5-61, Fourth Paragraph, Line 2 states that *"for the first 2 years, because of receiving, inspecting and putting the ETTP cylinders into storage position, the potential radiation exposures are expected to be greater than in following years."* This should be changed to reflect the fact that only ANSI-N14.1 compliant cylinders will be shipped during the first 2 years and the total shipping campaign will take approximately twice that long resulting in higher potential radiation exposures for a longer time period. D0032-11

If you have any questions concerning these comments, please contact me at (865) 481-0995.

Sincerely

John A. Owsley
Director

Jao742.99

Document D0033

Ruby English
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February 3, 2004

Gary S. Hartman
U. S. Department of Energy
Oak Ridge Operations
PO Box 2001
Oak Ridge, TN 37831

Public Comment in the Matter of: ***Draft Environmental Impact Statement***
Construction and Operation of a Depleted Uranium
Hexafluoride Conversion Facility

Comment Period was Extended to: February 4, 2004 by Department of Energy D0033-1

Please include the following comments as part of the permanent record.

Thank you for allowing me the opportunity to comment on such an important topic. The construction of a DUF6 Conversion Facility to be located at Paducah, KY. As you know, I am a neighbor of the Paducah Gaseous Diffusion Plant and have always tried to comment on topics you have let me know about and I always try to do it in a civilized manner. D0033-2

I understand about the conversion plant being built here and employing some of the workers that will be laid off when USEC closes. Since this is a rural community and the high paying jobs are not around here this plant would be good for the few people that will be successful in securing those positions. But, I also understand that when all or most of the current and former workers begin developing health problems then that will be another story. D0033-3

The continued storage of the current DUF6 cylinders indefinitely will eventually cause you more of a problem if these are not moved and disposed of due to continued exposure. There are more accidents at the Paducah Gaseous Diffusion Plant each year than is reported. One day this plant will cause and accident that will affect this whole area if these cylinders are not cleaned up. Then, I look at the health aspect for the neighborhood and wonder how much more The Department of Energy is going to put on us. D0033-4

So money wise this plant will be a good thing. Health-wise this plant addition will only cause more health problems for the neighborhood and the community. D0033-5

Transportation will be another problem, because, you will not only clean-up the cylinders at the Paducah site, but, you will be shipping in cylinders from other locations. These cylinders will be traveling on our roads and rails and possibly down our rivers. There could be accidents and then this would endanger the public. Hexaflouride is dangerous to our health. I also want to know about the disposal of the cylinders as to where they will go. My concern is in the landfill behind my house. Is that the plan? D0033-6

I also want to know about the waste from the DUF6 plant being built in New Mexico by Louisiana Energy Systems. Is the Department of Energy going to be responsible for waste that is produced from this plant. If so will they be shipped to Paducah? From everything that I am reading it seems the plan is for the EPA to lower the standards for the landfills and then DOE will dispose of material in these landfills that should never be put there. This has already happened at the Paducah Site and I am sure it could and will happen again. I don't really know what else to say, because, I think decisions and agreements have already been made and any thing else I could say would not make much difference. I hope that you will seriously consider and think about the decisions you make that at least take the thought of what is good for the neighborhood and the worker's. I know you have to make money, but please don't do it at the expense of human life. There has already been more than enough lives taken due to health problems caused by the misguided management that has been at this plant in the past. Please do something good for the community and build and operate a clean plant. The imaginary fences are not there and the contaminants don't stop at the fence either. The landfills are already leaking, so any additional dumping will only endanger us that much more. D0033-7 D0033-8 D0033-9

This Paducah Site will become a dumping ground for all waste good or bad that other locations will want to ship to Paducah if you let them. So, let me know what your decision will be and May God Bless. D0033-10

Sincerely,

Ruby English

Ruby English
PGDP Neighbor and
ACT Chairperson

Document D0034

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

February 2, 2004

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Mr. 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: EPA Review and Comments on
Draft Environmental Impact Statement (DEIS)
Construction and Operation of a Depleted Uranium Hexafluoride
Conversion Facility at the Paducah, KY site
CEQ No. 030541

Dear Mr. Hartman:

The U.S. Environmental Protection Agency (U.S. EPA) Region 4 reviewed the subject Draft Environmental Impact Statement (DEIS) pursuant to Section 309 of the Clean Air Act and Section 102 (2)(C) of the National Environmental Policy Act (NEPA). The purpose of this letter is to provide the Nuclear Regulatory Commission (NRC) with EPA's comments regarding potential impacts of the proposed construction and operation of a depleted uranium hexafluoride conversion facility at the Paducah, Kentucky site.

DOE's proposed action is to design, construct, and operate a conversion facility for converting depleted uranium hexafluoride (DUF_6) to a more stable chemical form (depleted triuranium octaoxide, U_3O_8) at the Paducah, KY site. The resulting conversion products would be suitable for beneficial use or for disposal.

The DEIS assesses the potential environmental impacts of the following activities: 1) construction, operation, maintenance, and decontamination and decommissioning (D&D) of the proposed conversion facility; 2) conversion to depleted U_3O_8 based on the proposed Uranium Disposition Services, LLC (UDS) technology; 3) transportation of uranium conversion products and waste to a disposal facility; 4) transportation and sale of the hydrogen fluoride (HF) conversion co-product and 5) neutralization of HF to CaF_2 and its sale or disposal in the event that the HF product is not sold.

Potential environmental impacts were assessed by examining all of the activities required to implement each alternative. For each alternative, potential impacts to workers, the public, and the environment were estimated for both normal operations and potential accidents. The No Action alternative is the storage of DUF_6 cylinders indefinitely, with continued cylinder surveillance and maintenance. The action alternatives included three potential locations for siting the proposed conversion facility. Location A was identified as the preferred location.

When regulatory compliance is discussed in 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, in 40, CFR 61, Subpart H, is not always adequately referenced. Please include this information in the FEIS. D0034-1

The EIS should include information regarding the capability and capacity for the two disposal facilities mentioned in the DEIS, namely Envirocare and the Nevada Test Site (NTS), to accept the proposed waste products from the Paducah conversion facility. The disposal facilities must meet both the Waste Acceptance Criteria (WAC) limits, as well as have the physical capacity to accept the proposed quantity of conversion product waste. D0034-2

Based on the review of the DEIS, the project received a rating of "EC-1," meaning that some environmental concerns exist regarding aspects of the proposed project. Because of the chemical and radioactive nature of the materials processed and produced, safety measures and prevention of potential impacts to on-site workers and public health are areas of primary concern. Specifically, protecting the environment and human health involves the need for appropriate operation and safety measures, monitoring, short-term storage, packaging, and transportation and sale or disposal of conversion products.

Ongoing radiological monitoring will be required during operation of this facility. Also, appropriate short-term storage of radioactive wastes on-site is required in order to prevent impacts to workers, the public, and the environment. With regard to LLW disposal, the DEIS covers the impacts from the transporting of conversion products to both the Envirocare of Utah, Inc. facility, and Nevada Test Site (NTS) from the proposed conversion facility in Paducah. Construction of the facility could potentially result in minor impacts to wetlands. Overall, the impacts as defined in the DEIS appear to be within acceptable limits. D0034-3

Thank you for the opportunity to comment on this document. We look forward to reviewing the Final EIS. If we can be of further assistance, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

Heinz Mueller

Heinz J. Mueller, Chief
NEPA Program Office

Enclosure: Summary of Rating Definitions and Follow up Action

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