RAS 9244

WINSTON & STRAWN LLP

35 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60601-9703

43 RUE DU RHONE
1204 GENEVA, SWITZERLAND

CITY POINT
1 ROPEMAKER STREET
LONDON, EC2Y 9HT

1400 L STREET, N.W.
WASHINGTON, D.C. 20005-3502

(202) 371-5700

FACSIMILE (202) 371-5950

www.winston.com

333 SOUTH GRAND AVENUE
LOS ANGELES, CALIFORNIA 90071-1543

200 PARK AVENUE
NEW YORK, NEW YORK 10166-4193

21 AVENUE VICTOR HUGO
75116 PARIS, FRANCE

101 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111-5894

JAMES R. CURTISS
(202) 371-5751
jcurtiss@winston.com

January 28, 2005

DOCKETED
USNRC

January 31, 2005 (3:37pm)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

BY FEDERAL EXPRESS

Administrative Judge G. Paul Bollwerk
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Pike
Mail Stop: T-3F23
Rockville, MD 20852

Administrative Judge Paul Abramson
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Pike
Mail Stop: T-3F23
Rockville, MD 20852

Administrative Judge Charles Kelber
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Two White Flint North
11545 Rockville Pike
Mail Stop: T-3F23
Rockville, MD 20852

In the Matter of
LOUISIANA ENERGY SERVICES, L.P.
(National Enrichment Facility)
Docket No. 70-3103-ML

Dear Administrative Judges:

In accordance with the Board's Memorandum and Order (Regarding Exhibit Submission and Other Administrative Matters) of January 18, 2005, enclosed are the exhibits referenced by Louisiana Energy Services, L.P. ("LES") in rebuttal testimony filed on the same date.

Template = SECY-028

SECY-02

Exhibit 73	Excerpt from "Waste Control Specialists, Section VI, Geology Report," prepared by Cook-Joyce, Inc., and Intera, Inc. (February 2004 (includes pages 4-1 to 4-11 only)
Exhibit 74	Department of Energy, "Record of Decision for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, OH, Site," 69 Fed. Reg. 44,649 (July 27, 2004)
Exhibit 75	Department of Energy, "Record of Decision for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, KY, Site," 69 Fed. Reg. 44,654 (July 27, 2004)
Exhibit 76	Areva-Cogema, "Defluorination of depleted UF_6 – The W defluorination facility" (Sept. 26, 2004)
Exhibit 77	Letter from V. Autry, Director of Division of Waste Management, Bureau of Land and Waste Management, South Carolina Department of Health and Environmental Control, to L. Garner, Regulatory Affairs Coordinator, Starmet CMI (Apr. 1, 1999)
Exhibit 78	Letter from V. Autry, Director of Division of Waste Management, Bureau of Land and Waste Management, South Carolina Department of Health and Environmental Control, to L. Garner, Regulatory Affairs Coordinator, Starmet CMI (June 17, 1999)

Yours sincerely,

James R. Curtiss

James R. Curtiss

Enclosures

cc: Lindsay Lovejoy, Jr., Esq. (w/enclosures)
Office of the Secretary (w/enclosures)
Lisa Clark, Esq. (w/enclosures)

SECTION VI

GEOLOGY REPORT

AUGUST 2004

Prepared for:

WASTE CONTROL SPECIALISTS LLC
ANDREWS, TEXAS

Prepared by:

Cook-Joyce, Inc.
812 West Eleventh
Austin, Texas 78701

&

Intera, Inc.
9111A Research Boulevard
Austin, Texas 78758

LES Exhibit 73

4.0 ACTIVE AND INACTIVE GEOLOGIC PROCESSES

This section addresses active geologic processes in the vicinity of the facility. In discussing the "active" geologic processes, the "inactive" processes are discussed as well. Active geologic processes include flooding and submergence, faulting, seismicity, land surface subsidence, and the potential for surface erosion. Flooding is addressed by locating the facility out of a 100-year floodplain and submergence applies only to coastal zones. Faults, seismicity, land surface subsidence, and surface erosion are discussed in the following sections.

4.1 FAULTS

This section provides an analysis of faults in the vicinity of the facility at the regional and local scales. Various regulatory requirements for land disposal activities, as well as storage and processing of wastes, require delineation of all faults within the area of the facility, together with demonstrations for any such faults that:

(i) fault displacement has not occurred within Holocene time, or if fault displacement has occurred within Holocene time, that no such faults pass within 200 feet of the portion of the surface facility where treatment, storage, or disposal of wastes will be conducted;

(ii) it will not result in structural instability of the surface facility or provide for groundwater movement to the extent that there is endangerment to human health or the environment; and

(iii) disposal units will not be located near a capable fault that could cause a maximum credible earthquake larger than that which the unit could reasonably be expected to withstand.

The WCS site is situated over the north central portion of a prominent Paleozoic structural feature known as the Central Basin Platform. Significant faults are known in the deep subsurface as interpreted from petroleum exploration activities. The faults are expressed in Paleozoic rocks at depths of thousands of feet. The deep faults lose their expression as significant stratigraphic offsets after early Permian (Wolfcampian) time. All of the major faulting in the vicinity of the Central Basin Platform occurred in response to tectonic forces active before the global plate tectonic reorganization that created the North American continent. (Bally et al., 1989). The Paleozoic faults exhibit low natural microseismicity as a result of passive response to relatively low levels of tectonic stress in the trailing edge of the westward-drifting North American plate. The closest area of active regional tectonic stress and active faulting offsetting Quaternary or younger geologic deposits is the Rio Grande Rift that forms the eastern boundary of the Basin and Range Province. The Rio Grande Rift is over 200 miles west of the WCS area. There is no surface evidence of faulting within 3000 feet the WCS permitted area.

4.1.1 Regional Tectonic Setting and Faults

The WCS facility is located within the Permian Basin region of west Texas. The Permian Basin derives its name from the fact that it is underlain by extensive deposits of Permian sediments.

4.1.1.1 *Tectonic Setting*

The WCS site is situated over the north-central portion of a prominent structural feature known as the Central Basin Platform (Figure 6.4-1). The Central Basin Platform is a deep-seated horst-like structure that extends northwest to southeast from southeastern New Mexico to eastern Pecos County, Texas. The Central Basin Platform is flanked by two prominent structural depressions known as the Delaware Basin to the southwest and the Midland Basin to the northeast, and by the Val Verde Basin to the south.

From the Cambrian to late Mississippian, west Texas and southeast New Mexico experienced only mild structural deformation that produced broad regional arches and shallow depressions (Wright, 1979). The Central Basin Platform served intermittently as a slightly positive feature during the early Paleozoic (Galley, 1958). During the Mississippian and Pennsylvanian, the Central Basin Platform uplifted using ancient lines of weakness (Hills, 1985), and the Delaware, Midland, and Val Verde Basins began to form as separate basins.

Late Mississippian tectonic events uplifted and folded the platform and were followed by more intense late Pennsylvanian and early Permian deformation that compressed and faulted the area (Hills, 1963). Highly deformed local structures formed ranges of mountains oriented generally parallel to the main axis of the platform (Wright, 1979).

This period of intense, late Paleozoic deformation was followed by a long period of gradual subsidence and erosion that stripped the Central Basin Platform and other structures to near base-level (Wright, 1979). The expanding sea gradually encroached over broad eroded surfaces and truncated edges of previously deposited sedimentary strata. New layers of arkose, sand, chert pebble conglomerate and shale deposits accumulated as erosional products along the edges and on the flanks of both regional and local structures. Throughout the remainder of the Permian, the Permian Basin slowly filled with several thousand feet of evaporites, carbonates, and shales (Figure 6.4-2).

From the end of the Permian until late Cretaceous, there was relatively little tectonic activity except for periods of slight regional uplifting and downwarping. During the early Triassic, the region was slowly uplifted and slightly eroded. These conditions continued until the late Triassic, when gentle downwarping formed a large land-locked basin in which terrigenous deposits of the Dockum Group accumulated in alluvial flood plains and as deltaic and lacustrine deposits (McGowen, et al., 1979). In Jurassic time, the area was again subject to erosion.

During Cretaceous time, a large part of the western interior of North America was submerged, and the west Texas/southeastern New Mexico region was part of a large continental shelf sea in which a thick sequence of Cretaceous rocks was deposited. The Cretaceous sequence of sediments comprised a basal clastic unit (the Trinity, Antlers or Paluxy sands) and overlying shallow marine carbonates.

Uplift and southward- and eastward-retreating Cretaceous seas were coincident with the Laramide Orogeny, which formed the Cordilleran Range west of the Permian Basin. The Laramide Orogeny uplifted the region to essentially its present position, supplying sediments for the late Tertiary Ogallala Formation. The major episode of Laramide folding and faulting occurred in the late Paleocene. There have been no major tectonic events in North America since the Laramide Orogeny, except for a period of minor volcanism during the late Tertiary in northeastern New Mexico and in the Trans-Pecos area. Hills (1985) suggests that slight Tertiary movement along Precambrian lines of weakness may have opened joint channels which allowed the circulation of groundwater into Permian evaporite layers. The near-surface regional structural controls may be locally modified by differential subsidence related to groundwater dissolution of Permian salt deposits (Gustavson, 1980).

4.1.1.2 *Faults*

Two types of faulting were associated with early Permian deformation. Most of the faults were long, high-angle reverse faults with several hundred feet of vertical displacement that often involved the Precambrian basement rocks (Hills, 1985). The traces of these faults are shown on the Precambrian structure map provided in Figure 6.4-3. The second type of faulting is found along the western margin of the Central Basin Platform where long strike-slip faults, with displacements of tens of miles, are found (Hills, 1985; Bebout and Meador, 1985) (Figure 6.4-4).

The large structural features of the Permian Basin are reflected only indirectly in the Mesozoic and Cenozoic rocks, as there has been virtually no tectonic movement within the basin since the Permian (Nicholson and Clebsch, 1961). The east-west and north-south regional cross-sections provided in Figures 6.4-5 and 6.4-6 illustrate this relationship. Figure 6.4-5 shows the draping of the Permian and Triassic sediments over the Central Basin Platform structure, located approximately 7000 feet beneath the present land surface. The faults that uplifted the platform do not appear to displace the younger Permian sediments. The northernmost fault on Figure 6.4-6, located at the Matador Uplift, terminates in lower Wolfcampian sediments.

A further comparison of the structure of the Devonian Woodford Formation to the structure of the younger Upper Guadalupe Whitehorse Group (Permian) (Figures 6.4-7 and 6.4-8) indicates that the faults in the Devonian section do not continue upward into the overlying Permian Guadalupe Whitehorse Group. The regional geologic and tectonic information does not indicate the presence of significant post-Permian faulting within the regional study area, although minor post-Permian faulting in the WCS area is discussed below. In addition, the local information does not indicate Holocene displacement of faults within 3000 feet of the proposed WCS landfill site. The site-specific structural setting is discussed below.

Two regional stratigraphic cross sections constructed in the vicinity of the WCS site using oil and gas well logs are shown as Plates 6.2-2 and 6.2-3. The locations of the cross sections are shown in Figure 6.2-1. These cross sections depict the major stratigraphic units that occur within about 2000 feet below ground surface in the vicinity of the site. The stratigraphic units depicted on Plates 6.2-2 and 6.2-3 include the upper OAG unit of a few tens of feet in thickness, the underlying Triassic red beds of the Dockum Group with a thickness of 1,000 to 1,500 feet, the underlying Permian Dewey Lake Formation red beds, and the Permian evaporites of the Rustler and Salado Formations. These cross sections do not indicate the presence of significant faulting in the upper 2,000 feet of sediments within 3 to 4 miles of the WCS site. The base of the underground source of drinking water (USDW) is the bottom of the Santa Rosa Formation at about 1,400 feet below ground surface in the vicinity of the WCS facility. The Santa Rosa Formation is the lowermost formation of the Triassic Dockum Group.

4.1.1.3 *Post-Permian/Pre-Cretaceous Fault Investigation*

Faulting in a sandstone in the upper portion of the Triassic red beds of the RCRA landfill was anecdotally identified at a WCS project meeting February 11, 2004. Subsequently, photos taken in 1996 of an apparent southward-dipping reverse fault were located (Figure 6.4-9). Since regulatory criteria address the age of faults and the age of any geologic units affected or displaced by faulting, a geologic investigation of the fault was undertaken. The southeast wall of the RCRA landfill was extended about 200 feet to the southeast in May and June 2004, yielding about 60 feet of vertical geologic exposure along a length of about 400 feet. Two benches with subvertical walls were exposed.

The upper wall was approximately 25 feet high, extending about 6 feet into the Triassic red beds of the Dockum Group. The upper wall exposed caprock caliche developed on Cretaceous Antlers Formation sand and gravel, underlain by non-calichified Antlers sands and gravels, in turn underlain by the red bed clays of the Triassic Dockum Group. The upper 3 to 4 feet of the red beds have been altered from red to gray. Along the relatively sharp contact between the altered gray clay and unaltered red clay were numerous small faults with offsets ranging from a few inches to a few feet.

The lower wall was excavated an additional 30 to 35 feet into the red beds exposing a 10- to 15-foot thick sandstone layer in the upper part of the wall. The sandstone exhibited two opposing reverse faults with offsets of about 20 feet on the southward-dipping southern fault and about 3 feet on the northward-dipping northern fault (Figure 6.4-10). The southern reverse fault in the Triassic sandstone bed is the southeastern extension of the southward-dipping reverse fault in the 1996 photographs.

Geologic mapping

Geologic mapping of the upper and lower walls was completed by two field mapping teams, supervised by a senior coordinating geologist. Elevation baselines were surveyed onto both the upper and lower walls, and the walls were subdivided into five-foot square townships and ranges. Detailed geologic mapping was conducted on parts of the upper and lower walls using moveable five-foot square grids, subdivided into 25 one-foot square sections. The mapping focused on geologic contacts and distinguishable geologic features, including faults, joints, slickensides, bedding planes, partings, channels, alteration and weathering zones. The mapped geologic sections are provided in Figure 6.4-11.

The upper wall was mapped in considerably more detail than the lower wall in order to determine the youngest geologic units affected by faulting. The southern end of the upper wall, where the largest faults and offsets were observed, was mapped in the greatest detail. Parts of the upper wall were mapped by field sketching and photographic interpretation. The two faults in the lower wall were mapped in detail using the 5-foot grids, while the remainder of the lower wall was documented using photo mosaics.

Observations - Lower wall

The geologic materials exposed on the lower wall are part of the Triassic Dockum Group, specifically the Cooper Canyon Formation (Lehman, 1994b). The red beds are characteristically red and purple claystones, with interbedded discontinuous siltstone and sandstone units. As indicated above, a fine grained sandstone layer about 10 to 15 feet thick occurred in the upper third of the lower wall. The claystones were relatively plastic on excavation, drying within a week to a stiff, blocky structure.

The red beds exhibited nominally orthogonal, subvertical jointing with well-developed joints at about 0.5 to 1 foot spacing. Lower hemisphere stereonet projections of the poles to the subvertical joints show a maximum concentration at about 320° (north 40° west) with a secondary concentration at about 40° (north 40° east) (Figure 6.4-12). The subvertical joints are an expression of the orthogonal regional jointing system.

The concentration of subvertical joint directions at about 320° is partially due to bias induced by the orientation of the northeast-striking wall. If a similar length northwest-striking wall were available for measurement of subvertical joints, it is likely that the secondary concentration at about 40° would be more pronounced and the orthogonal pattern of the regional jointing system would be more obvious on the stereonet plot. There was only about 50 feet of northwest-striking wall exposed beneath the sandstone at the north end of the excavation, yielding a limited opportunity to eliminate the bias of the longer northeast-striking exposure of about 400 feet. The subvertical joints were often coated or partially coated with dark brown to purplish-black weathering products, likely manganese oxide. Slickensides on the subvertical joints were not observed.

Relatively large, continuous and 'wavy' lower-angle joints at about 30° to 60° from horizontal were also present, without an apparent well-developed spacing or repetition, as in the subvertical joints. The lower angle joints exhibited continuity over 10 to 15 feet of exposure on the lower wall, and slickensides were numerous and well developed on the wavy joints. The strike of the irregular, wavy joint planes show a maximum at about 300° (Figure 6.4-13), however the strikes of the irregular joint planes appear to be quite well distributed about the stereonet.

The sandstone exposed in the upper third of the lower wall was 10 to 15 feet in thickness. The sandstone exhibited two opposing reverse faults about 200 feet apart with apparent dips of the order of 30° to 40°. The southern reverse fault is the southeastern extension of the southward-dipping reverse fault in the 1996 photographs. The reverse fault in the southern end of the wall was south-dipping with a south-hanging-wall-up offset of about 20 feet. The reverse fault in the northern part of the wall was north-dipping with a north-hanging-wall-up offset of about 3 feet. The poles of the measured fault planes show a strike of the fault planes of about 277° to 280° (north 83° west to north 80° west) (Figure 6.4-14). Slickensides were measured on both the south and north fault planes, indicating dip slip with a compressional stress azimuth of about 15°

(north 15° east) (Figure 6.4-15). The sandstone was lower in the section on the northern third of the wall. The change in altitude may be related to possible fold development in the red beds in the vicinity of the reverse faults, or it may be depositionally-related in that the poorly developed bedding appeared to remain subhorizontal for much of the exposure.

Observations - Upper Wall

The geologic materials exposed on the upper wall include the upper 3 to 10 feet of Triassic red beds, overlain by Cretaceous Antlers Formation sands and gravels. The upper 10 to 15 feet of the Antlers Formation has been highly calichified and has developed into the characteristic caprock caliche of the Southern High Plains. The joint system in the red beds in the upper wall provided fewer subvertical joints to measure due to the limited exposure of only the upper few feet of the red beds over most of the upper wall. Of the comparatively limited number of measured subvertical joints, the strike maximum occurred at about 290° to 295° (Figure 6.4-16). The upper wall irregular, lower-angle, wavy joints with well-developed slickensides plotted similar to the lower wall irregular, low-angle, wavy joints, with a strike maximum at about 330° but also with a well distributed pole pattern throughout the stereonet (Figure 6.4-17).

There are numerous fault planes in the red beds on the upper wall. The faults in the red beds on the upper wall are very apparent, since the offsets occurred after the development of a grayish-colored altered layer approximately 3 to 4 feet thick at the top of the red beds. The sharp lower contact of the altered layer shows the offsets very well.

The faults in the red bed on the upper wall are virtually all reverse faults, with both south and north apparent dips on the fault planes. The offsets on the reverse faults range from inches to as much as several feet. The largest fault in the red beds on the upper wall, with an offset of about 4 feet, is in the southern third of the exposed wall. This fault is an upward continuation of the southern hanging-wall-up reverse fault in the sandstone on the lower wall, which shows an offset of about 20 feet. The fault appears to die out quickly in the vertical direction. The stress which caused the brittle failure and 20 feet of offset of the sandstone on the lower wall appears to be accommodated throughout the remainder of the red bed claystone/clay in the upper wall by a number of smaller faults and perhaps plastic deformation in the clays.

The faults in the red beds on the upper wall show a pattern of anastamozing slip surfaces, with many of the south- and north-dipping slip planes appearing to pair up and join into a primary slip plane with smaller dendritic slip surfaces splaying off the primary plane. The fault planes on the upper wall dip at about 30° to 40° to the northeast and southwest. Strikes of the fault planes on the upper wall show a maximum at about 284° (north 76° west) (Figure 6.4-18). Slickensides on the fault planes show dip-slip movement, with slickenside azimuths between about 340° and 30° (north 20° west and north 30° east) (Figure 6.4-19), consistent with the 15° apparent compressional stress azimuth of the faults on the lower wall.

During late Jurassic or early Cretaceous time, it appears that the upper part of the red beds was subjected to geochemically reducing conditions that altered the red bed clays from red to gray. The thickness of the altered layer is very uniform along the upper wall, which suggests that the alteration occurred while the top of the red beds were at some relatively uniform elevation, prior to faulting or folding. The reducing conditions and vertical downward advance of the alteration front suggest that the area may have been a submerged bog or shoreline with relatively stagnant, marshy conditions.

The alteration occurs to a very uniform depth marked by a sharp vertically delimited alteration front of about ¼ to ½ inch where the color of the red beds changes from gray to red. The sharp alteration front is most likely a diffusion front within the relatively impermeable clays. The uniform depth of penetration suggests matrix-dominated transport of a diffusion front, since the alteration front does not extend significantly further downward adjacent to the joints or fractures. The joints, though preferred fluid paths and perhaps marginally more transmissive than the unfractured matrix, apparently did not allow any significant additional downward penetration of alteration fluids. The joints were essentially non-transmissive to alteration fluids, likely due to the presence of swelling montmorillonite clays (Glass et al., 1973) and joint closure.

Liesegang banding between joints is very well developed within the altered layer. The liesegang banding parallels and mimics the joint surfaces in three dimensions. Alteration clearly occurred post-jointing, most likely as successive diffusion fronts moved inward from the joints from all directions under saturated conditions. The altered layer may have developed under successive, perhaps seasonal, wetting and drying conditions, with liesegang banding developing between joints as the joints swelled closed on passage of the wetting fronts.

At the top of the gray altered layer was a readily apparent parting that was present over approximately 80 to 90% of the exposed wall. The parting appears to be an erosional/depositional surface of either late Jurassic or early Cretaceous age based on the presence of some Cretaceous-aged gravels mixed into the upper portion of the zone above the parting. Above the parting are both reworked altered red beds (reworked and redeposited clays of the altered layer) as well as a second zone of alteration in the southern part of the wall where the reworked clays of the gray altered layer have apparently been further altered to a mixture of silt- to sand-sized crystalline carbonates and sulfates.

Above the reworked or reworked and altered clays are the Cretaceous-aged Antlers Formation sands and gravels. The lower part of the Antlers Formation contains numerous clasts and angular blocks of altered upper red beds or reworked altered red beds. The Antlers Formation exhibits a depositional pattern characteristic of braided streams, with a sequence of younger channels cross-cutting older channels and smaller channels a few tens of feet in width embedded within larger channel deposits. The Antlers Formation sands and gravels range from well-sorted fine to medium grained sands to poorly sorted sands and gravels with occasional cobble-sized particles. The lower few feet of the Antlers Formation is poorly to partially cemented sands and gravels apparently unaffected by the calichification process which is readily apparent in the upper parts of the section. Some of the finer sands higher in the section exposed on the upper wall appear well cemented, although the cementing may be due in part to the development of the caprock caliche.

The relationship between faulting in the Triassic red beds and the overlying Cretaceous Antlers Formation was carefully evaluated to determine if any displacement of the younger Cretaceous deposits had occurred. The Triassic red beds are separated from the overlying Cretaceous Antlers Formation sands and gravels by the distinct and mappable parting at the top of the gray altered layer of red beds. None of the observed fault planes or slip surfaces in the Triassic red beds in the extensively mapped section cross or offset the parting. In addition, the bedding in the Antlers Formation is continuous where observable and not calichified, and in particular, there are no Triassic/Cretaceous contact offsets or bedding offsets in the Cretaceous Antlers Formation above the area in the Triassic red beds where the largest displacements occur nor is there any apparent folding of the Antlers Formation in this area. Therefore, there are no indications that the Cretaceous-aged Antlers Formation was affected by the faulting in the Triassic red beds. There are clearly no geologic Formations present in the excavation younger than Triassic that are affected by faulting and there are no regulatory issues related to faulting at the WCS site. Additionally, there are no issues with respect to potential migration pathways resulting from the faulting at the WCS site. The uppermost faulting occurred completely within the Triassic red beds; which have great capacity for healing and closing fault planes and joints to fluid migration as indicated by the limited penetration of the alteration front in the red beds.

4.1.1.4 *Red Bed Ridge Development*

Faulting of any significance in the vicinity of the WCS site or the Central Basin Platform is generally considered to be Permian or earlier (Nicholson and Clebsch, 1961). Galley (1958, p.439-441) indicates that although "events associated with Laramide and several Tertiary orogenies have broken, destroyed, submerged, or obscured various segments of Paleozoic structures at the southwest edge of the Permian Basin", "Elsewhere the Paleozoic strata lie at almost the same attitudes they had attained at the end of Ochoa time, having been affected subsequently only by regional tilting and local folding or faulting of small vertical displacement." These statements indicate that the Central Basin Platform area has not been significantly disturbed by tectonic events since late Permian (Ochoa) time.

The post-Permian/pre-Cretaceous tilting, folding and faulting discussed in the previous section may have contributed to the development of the red bed ridge by creating a relatively local topographic high uplifted by the minor compressional faulting/folding of the red beds. The local geology discussed in Section 5.3 indicates that the first continuous red bed sandstone, which occurs at an approximate depth of about 225 feet below ground surface, has a south/southwestward dip of about 80 feet per mile. The south/southwestward dipping bedding may represent the southwestern limb of an anticline or monocline with the red bed ridge as the fold axis. The red bed ridge area may have been an inter-drainage topographic high since the compressional event.

halseypj@oro.doe.gov or check the Web site at *www.oakridge.doe.gov/em/ssab.*

SUPPLEMENTARY INFORMATION:

Purpose of the Board: The purpose of the Board is to make recommendations to DOE in the areas of environmental restoration, waste management, and related activities.

Tentative Agenda

8 a.m.—Introductions, overview of meeting agenda and logistics (Dave Mosby)
8:15 a.m.—Past year evaluation—Board and stakeholder survey results, what worked, what can be improved (Facilitator)
9:50 a.m.—Break
10:05 a.m.—Past year evaluation continued
10:45 a.m.—Summaries and Q&A on the most important issues to DOE, TN Department of Environment & Conservation, and EPA (Facilitator)
11:30 a.m.—Lunch
12:30 p.m.—Environmental Management Committee (Luther Gibson)
- Accomplishments and impacts
- Review FY 2004 Work Plan
- Identify issues for FY 2005
- Assignment of new issues/issues managers

1:30 p.m.—Stewardship Committee (Ben Adams)
- Accomplishments and impacts
- Review FY 2004 Work Plan
- Identify issues for FY 2005
- Assignment of new issues/issues managers

2:30 p.m.—Break
2:45 p.m.—Public Outreach Committee (Committee Chair)
- Accomplishments and impacts
- Review FY 2004 Work Plan
- Identify issues for FY 2005

3:15 p.m.—Board Finance Committee (Kerry Trammell)
- Accomplishments and impacts
- Review FY 2004 Work Plan
- Identify issues for FY 2005

3:45 p.m.—Convene Board meeting to elect officers and conduct other business as needed
- Public Comment Period

4:45 p.m.—Set date for next retreat and adjourn

Public Participation: The meeting is open to the public. Written statements may be filed with the Committee either before or after the meeting. Individuals who wish to make oral statements pertaining to agenda items should contact Pat Halsey at the address or telephone number listed above. Requests must be received five days prior to the meeting and reasonable provision will be made to include the presentation in the agenda. The Deputy Designated Federal Officer is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Each individual wishing to make public comment will be provided a maximum of five minutes to present their comments. This Federal Register notice is being published less than 15 days prior to the meeting due to programmatic issues that had to be resolved prior to the meeting date.

Minutes: Minutes of this meeting will be available for public review and copying at the Department of Energy's Information Center at 475 Oak Ridge Turnpike, Oak Ridge, TN between 8 a.m. and 5 p.m. Monday through Friday, or by writing to Pat Halsey, Department of Energy Oak Ridge Operations Office, P.O. Box 2001, EM–90, Oak Ridge, TN 37831, or by calling her at (865) 576–4025.

Issued at Washington, DC, on July 20, 2004.

Rachel M. Samuel,

Deputy Advisory Committee Management Officer.

[FR Doc. 04–17049 Filed 7–26–04; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Record of Decision for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, OH, Site

AGENCY: Department of Energy.

ACTION: Record of decision.

SUMMARY: The Department of Energy (DOE) prepared a *Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, Ohio, Site* (FEIS) (DOE/EIS–0360). The FEIS Notice of Availability was published by the U.S. Environmental Protection Agency (EPA) in the Federal Register (69 FR 34161) on June 18, 2004. In the FEIS, DOE considered the potential environmental impacts from the construction, operation, maintenance, and decontamination and decommissioning (D&D) of the proposed depleted uranium hexafluoride (DUF_6) conversion facility at three alternative locations within the Portsmouth site, including transportation of cylinders (DUF_6, normal and enriched UF_6, and empty) currently stored at the East Tennessee Technology Park (ETTP) near Oak Ridge, Tennessee, to Portsmouth; construction of a new cylinder storage yard at Portsmouth (if required) for the ETTP cylinders; transportation of depleted uranium conversion products and waste materials to a disposal facility; transportation and sale of the aqueous hydrogen fluoride (HF) produced as a conversion co-product; and neutralization of aqueous HF to calcium fluoride (CaF_2) and its sale or disposal in the event that the aqueous HF product is not sold. An option of shipping the ETTP cylinders to the Paducah, Kentucky, site has also been considered, as has an option of expanding operations by increasing throughput (through efficiency improvements or by adding a fourth conversion line) or by extending the period of operation. A similar EIS was issued concurrently for construction and operation of a DUF_6 conversion facility at DOE's Paducah site (DOE/EIS–0359).

DOE has decided to construct and operate the conversion facility in the west-central portion of the Portsmouth site, the preferred alternative identified in the FEIS as Location A. Groundbreaking for construction of the facility will commence on or before July 31, 2004, as anticipated by Public Law (Pub. L.) 107–206. Cylinders currently stored at the ETTP site will be shipped to Portsmouth; a new cylinder yard will be constructed, if necessary, based on the availability of storage yard space when the cylinders are received. The aqueous HF produced during conversion will be sold for use, pending approval of authorized release limits, as appropriate.

ADDRESSES: The FEIS and this Record of Decision (ROD) are available on the DOE National Environmental Policy Act (NEPA) Web site at *http://www.eh.doe.gov/nepa* and on the Depleted UF_6 Management Information Network Web site at *http://web.ead.anl.gov/uranium.* Copies of the FEIS and this ROD may be requested by e-mail at *Ports_DUF6@anl.gov,* by toll-free telephone at 1–866–530–0944, by toll-free fax at 1–866–530–0943, or by contacting Gary S. Hartman, Oak Ridge Operations Office, U.S. Department of Energy, SE–30–1, P.O. Box 2001, Oak Ridge, Tennessee 37831.

FOR FURTHER INFORMATION CONTACT: For information on the conversion facility construction and operation, contact Gary Hartman at the address listed above. For general information on the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance (EH–42), U.S. Department of Energy, 1000 Independence Avenue, SW.,

LES Exhibit 74

Washington, DC 20585, 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

I. Background

The United States has produced DUF_6 since the early 1950s as part of the process of enriching natural uranium for both civilian and military applications. Production took place at three gaseous diffusion plants (GDPs), first at the K–25 site (now called ETTP) at Oak Ridge, Tennessee, and subsequently at Paducah, Kentucky, and Portsmouth, Ohio. The K–25 plant ceased enrichment operations in 1985, and the Portsmouth plant ceased enrichment operations in 2001. The Paducah GDP continues to operate.

Approximately 250,000 t (275,000 tons) of DUF_6 is presently stored in about 16,000 cylinders at Portsmouth and about 4,800 cylinders at ETTP. The majority of the cylinders weigh approximately 12 t (14 tons) each, are 48 inches (1.2 m) in diameter, and are stored on outside pads. DOE has been looking at alternatives for managing this inventory. Also in storage are 3,200 cylinders at Portsmouth and 1,100 cylinders at ETTP that contain enriched UF_6 or normal UF_6 (collectively called "non-DUF_6" cylinders) or are empty. [The non-DUF_6 cylinders would not be processed in the conversion facility.] The Portsmouth FEIS considers the shipment of all ETTP cylinders to Portsmouth, as well as the management of both the Portsmouth and ETTP non-DUF_6 cylinders at Portsmouth.

As a first step, DOE evaluated potential broad management options for its DUF_6 inventory in a *Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride* (DUF_6 PEIS) (DOE/EIS–0269) issued in April 1999. In the PEIS Record of Decision (64 FR 43358, August 10, 1999), DOE decided to promptly convert the DUF_6 inventory to a more stable uranium oxide form and stated that it would use the depleted uranium oxide as much as possible and store the remaining depleted uranium oxide for potential future uses or disposal, as necessary. In addition, DOE would convert DUF_6 to depleted uranium metal, but only if uses for metal were available. DOE did not select specific sites for the conversion facilities but reserved that decision for subsequent NEPA review. Today's Record of Decision announces the outcome of that site-specific NEPA review. DOE is also issuing today a separate but related ROD announcing the siting of a DUF_6 conversion facility at Paducah, Kentucky.

Congress enacted two laws that directly addressed DOE's management of its DUF_6 inventory. The first law, Pub. L. 105–204, signed by the President in July 1998, required the Secretary of Energy to prepare a plan to commence construction of, no later than January 31, 2004, and to operate an on-site facility at each of the GDPs at Paducah, Kentucky, and Portsmouth, Ohio, to treat and recycle DUF_6, consistent with NEPA. The second law, Pub. L. 107–206, signed by the President on August 2, 2002, required that no later than 30 days after enactment, DOE must award a contract for the scope of work described in its Request for Proposals (RFP) issued in October 2000 for the design, construction, and operation of a DUF_6 conversion facility at each of the Department's Paducah, Kentucky, and Portsmouth, Ohio, gaseous diffusion sites. It also stipulated that the contract require groundbreaking for construction to occur no later than July 31, 2004, at both sites.

In response to these laws, DOE issued the *Final Plan for the Conversion of Depleted Uranium Hexafluoride as Required by Public Law 105–204* in July 1999, and awarded a contract to Uranium Disposition Services (UDS) for construction and operation of two conversion facilities on August 29, 2002, consistent with NEPA.

On September 18, 2001, DOE published a Notice of Intent (NOI) in the **Federal Register** (66 FR 48123) announcing its intention to prepare an EIS for the proposed action to construct, operate, maintain, and decontaminate and decommission two DUF_6 conversion facilities: One at Portsmouth and one at Paducah. Following the enactment of Pub. L. 107–206, DOE reevaluated the appropriate scope of its site-specific NEPA review and decided to prepare two separate EISs, one for the plant proposed for the Paducah site and a second for the Portsmouth site. This change in approach was announced in the **Federal Register** on April 28, 2003 (68 FR 22368).

The two draft conversion facility EISs were mailed to stakeholders in late November 2003, and a Notice of Availability was published by the EPA in the **Federal Register** on November 28, 2003 (68 FR 66824). Comments on the draft EISs were accepted during a 67-day review period that ended on February 2, 2004. DOE considered these comments and prepared two FEISs. The Notice of Availability for the two FEISs was published by the EPA in the **Federal Register** (69 FR 34161) on June 18, 2004.

II. Purpose and Need for Agency Action

DOE needs to convert its inventory of DUF_6 to more stable chemical form(s) for use or disposal. This need follows directly from (1) the decision presented in the August 1999 ROD for the PEIS, namely, to begin conversion of the DUF_6 inventory as soon as possible, and (2) Pub. L. 107–206, which directs DOE to award a contract for construction and operation of conversion facilities at both the Paducah site and the Portsmouth site.

III. Alternatives

No Action Alternative. Under the no action alternative, conversion would not occur. Current cylinder management activities (handling, inspection, monitoring, and maintenance) would continue: Thus the status quo would be maintained at Portsmouth and ETTP indefinitely.

Action Alternatives. The proposed action evaluated in the FEIS is to construct and operate a conversion facility at the Portsmouth site for conversion of the Portsmouth and ETTP DUF_6 inventories into depleted uranium oxide (primarily triuranium octaoxide [U_3O_8]) and other conversion products. The FEIS review is based on the conceptual conversion facility design proposed by the selected contractor, UDS. The UDS dry conversion process is a continuous process in which DUF_6 is vaporized and converted to a mixture of uranium oxides (primarily U_3O_8) by reaction with steam and hydrogen in a fluidized-bed conversion unit. The hydrogen is generated from anhydrous ammonia (NH_3). The depleted U_3O_8 powder is collected and packaged for disposition in bulk bags (large-capacity, strong, flexible bags) or the emptied cylinders to the extent practicable. Equipment would also be installed to collect the aqueous HF (also called HF acid) co-product and process it into HF at concentrations suitable for commercial resale. A backup HF acid neutralization system would convert up to 100% of the HF acid to CaF_2 for sale or disposal in the future, if necessary. The conversion products would be transported to a disposal facility or to users by truck or rail. The conversion facility will be designed with three parallel processing lines to convert 13,500 t (15,000 tons) of DUF_6 per year, requiring 18 years to convert the Portsmouth and ETTP inventories.

Three alternative locations within the site were evaluated, Locations A (preferred), B, and C. The proposed action includes the transportation of the cylinders currently stored at the ETTP site to Portsmouth. In addition, an option of transporting the ETTP cylinders to Paducah was considered, as was an option of expanding conversion facility operations.

Alternative Location A (Preferred Alternative). Location A is the preferred location identified in the FEIS for the conversion facility and is located in the west-central portion of the site, encompassing 26 acres (10 ha). This location has three existing structures that were formerly used to store containerized lithium hydroxide monohydrate. The site was rough graded, and storm water ditch systems were installed. This location was identified in the RFP for conversion services as the site for which bidders were to design their proposed facilities.

Alternative Location B. Location B is in the southwestern portion of the site and encompasses approximately 50 acres (20 ha). The site has two existing structures built as part of the gas centrifuge enrichment project that was begun in the early 1980s and was terminated in 1985. USEC is currently in the process of developing and demonstrating an advanced enrichment technology based on gas centrifuges. A license for a lead test facility to be operated at the Portsmouth site was issued by the U.S. Nuclear Regulatory Commission (NRC) in February 2004. The lead facility would be located in the existing gas centrifuge buildings within Location B. In addition, USEC announced in January 2004 that it planned to site its American Centrifuge Facility at Portsmouth, although it did not identify an exact location. Therefore, Location B might not be available for construction of the conversion facility.

Alternative Location C. Location C is in the southeastern portion of the site and has an area of about 78 acres (31 ha). This location consists of a level to very gently rolling grass field. It was graded during the construction of the Portsmouth site and has been maintained as grass fields since then.

Under the action alternatives, DOE evaluated the impacts from packaging, handling, and transporting depleted uranium oxide conversion product (primarily U_3O_8) from the conversion facility to a low-level waste (LLW) disposal facility that would be (1) selected in a manner consistent with DOE policies and orders and (2) authorized to receive the conversion products by DOE (in conformance with DOE orders), or licensed by the NRC (in conformance with NRC regulations), or an NRC Agreement State agency (in conformance with state laws and regulations determined to be equivalent to NRC regulations). Assessment of the impacts and risks from on-site handling and disposal at an LLW disposal facility has been deferred to the disposal site's site-specific NEPA or licensing documents. While the FEIS presents the impacts from transporting the DUF_6 conversion products to both the Envirocare of Utah, Inc., facility and the Nevada Test Site (NTS), DOE plans to decide the specific disposal location(s) for the depleted U_3O_8 conversion product after additional NEPA review, as necessary. Accordingly, DOE will continue to evaluate its disposal options and will consider any further information or comments relevant to that decision. DOE will give a minimum 45-day notice before making its specific disposal decision and will provide any additional NEPA analysis for public review and comment.

The following alternatives were considered but not analyzed in detail in the FEIS: Use of Commercial Conversion Capacity, Sites Other Than Portsmouth, Alternative Conversion Processes, Long-Term Storage and Disposal Alternatives, Transportation Modes Other Than Truck and Rail, and One Conversion Plant Alternative.

IV. Summary of Environmental Impacts

The FEIS evaluated potential impacts from the range of alternatives described above. The impact areas included human health and safety, air quality, noise, water and soil, socioeconomics, ecological resources, waste management, resource requirements, land use, cultural resources, environmental justice, and cumulative impacts. In general, the impacts are low for both the no action and the proposed action alternatives. Among the three alternative locations considered at the Portsmouth site for the conversion facility, there are no major differences in impacts that would make one location clearly environmentally preferable. The discussion below summarizes the results of the FEIS impact analyses, highlighting the differences among the alternatives.

Human Health and Safety—Normal Operations and Transportation. Under all alternatives, it is estimated that potential exposures of workers and members of the general public to radiation and chemicals would be well within applicable public health standards and regulations. UDS would confirm, prior to conversion or at the initiation of the conversion operations, that polychlorinated biphenyl (PCB) releases to the workplace from the paint coating of some cylinders manufactured prior to 1978 would be within applicable Occupational Safety and Health Administration (OSHA) limits. Transportation by rail would tend to cause fewer impacts than by truck primarily because of exhaust emissions from the trucks and the higher number of shipments for trucks than for rail. The option of converting the aqueous HF to CaF_2 and transporting the CaF_2 to a disposal facility would result in increased shipments. The impacts associated with transportation of uranium oxide product to a disposal facility in the western United States by truck would be about the same if bulk bags are used or two filled cylinders are loaded onto a truck. If only one cylinder is loaded onto a truck, the impacts would be higher because of the increased number of shipments.

Human Health and Safety—Accidents. DOE has extensive experience in safely storing, handling, and transporting cylinders containing UF_6 (depleted, normal, or enriched). In addition, the chemicals used or generated at the conversion facility are commonly used for industrial applications in the United States, and there are well-established accident prevention and mitigative measures for their storage and transportation.

Under all alternatives, it is possible that accidents could release radiation or chemicals to the environment, potentially affecting both the workers and members of the general public. It is also possible that, similar to other industrial facilities, workers could be injured or killed as a result of on-the-job accidents unrelated to radiation or chemical exposure. Similarly, during transportation of materials, both crew members and members of the public may be injured or killed as a result of traffic accidents.

Three kinds of accidents have the largest possible consequences: (1) Those involving the DUF_6 cylinders during storage and handling under all alternatives, (2) those involving chemicals used or generated by the conversion process at the conversion site (in particular NH_3 and aqueous HF) under the action alternatives, and (3) those occurring during transportation of chemicals and cylinders under the action alternatives, The severity of the consequences from such accidents would depend on weather conditions at the time of the accident, and, in the case of the transportation accidents, the location of the accident, and could be significant. However, those accidents would have a low estimated probability of occurring, making the risk low. (Risk is determined by multiplying the consequences by the probability of occurrence).

Under the no action alternative, the risks associated with cylinder storage and handling would continue to exist as long as the cylinders are there. However, under the action alternatives, the risks associated with both the cylinder accidents and the chemical accidents would decline over time and disappear at the completion of the conversion project.

In comparing truck versus rail transportation, even though the consequences of rail accidents are generally higher (because of the larger cargo load per railcar than per truck), the accident probabilities tend to be lower for railcars than for trucks. As a result, the risks of accidents would be about the same under either option.

Air Quality and Noise. Under the action alternatives, the total (modeled plus background value) concentrations due to emissions of most criteria pollutants—such as sulfur dioxide, nitrogen oxides, and carbon monoxide—would be well within applicable air quality standards. For construction, the primary concern would be particulate matter (PM) released from near-ground-level sources. Total concentrations of PM_{10} and $PM_{2.5}$ (PM with an aerodynamic diameter of 10 μm or less and 2.5 μm or less, respectively) at the construction site boundaries would be close to or above the standards because of the high background concentrations. On the basis of maximum background values from 5 years of monitoring at the nearest monitoring station, exceedance of the annual $PM_{2.5}$ standard would be unavoidable because the background concentration already exceeds the standard. Construction activities would be conducted so as to minimize further impacts on ambient air quality.

Water and Soil. During construction of the conversion facility, concentrations of any potential contaminants in soil, surface water, or groundwater would be kept well within applicable standards or guidelines by implementing storm water management, sediment and erosion controls, and good construction practices. During operations, no impacts would be expected because no contaminated liquid effluents are anticipated.

Socioeconomics. Under the action alternatives, construction and operation of the conversion facility would create more jobs and personal income in the vicinity of the Portsmouth site than would be possible under the no action alternative. The number of jobs would be approximately 190 direct and 280 total during construction, and 160 direct and 320 total during operations.

Ecology. For the action alternatives, the total area disturbed during conversion facility construction would be up to 65 acres (26 ha). Although vegetation communities in the disturbed area would be impacted by a loss of habitat, impacts could be minimized (*e.g.*, by appropriate placement of the facility within each location), and negligible long-term impacts to vegetation and wildlife are expected at all locations. Impacts to wetlands could be minimized, depending on where exactly the facility was placed within each location and by maintaining a buffer near adjacent wetlands during construction. During construction, trees with exfoliating bark (such as shagbark hickory or dead trees with loose bark) that can be used by the Indiana bat (federal- and state-listed as endangered) as roosting trees during the summer would be saved if possible.

Waste Management. Under the action alternatives, waste generated during construction and operations would have negligible impacts on the Portsmouth site waste management operations, with the exception of possible impacts from disposal of CaF_2. If the aqueous HF were not sold but instead neutralized to CaF_2, it is currently unknown whether (1) the CaF_2 could be sold, (2) the low uranium content would allow the CaF_2 to be disposed of as nonhazardous solid waste, or (3) disposal as LLW would be required. The low level of uranium contamination expected (*i.e.*, less than 1 ppm) suggests that sale or disposal as nonhazardous solid waste would be most likely. Waste management for disposal as nonhazardous waste could be handled through appropriate planning and design of the facilities. If the CaF_2 had to be disposed of as LLW, it could represent a potentially large impact on waste management operations.

The U_3O_8 produced during conversion would amount to about 5% of Portsmouth's annual projected LLW volume.

Cylinder Preparation at ETTP. The cylinders at ETTP will require preparation for shipment by either truck or rail. Three cylinder preparation options were considered for the shipment of noncompliant cylinders: cylinder overpacks, shipping "as-is" under a U.S. Department of Transportation (DOT) exemption, and use of a cylinder transfer facility (there are no current plans to build such a facility at ETTP). The operational impacts (*e.g.*, storage, handling, and maintenance of cylinders) from any of the options would be small and limited primarily to external radiation exposure of involved workers. If a decision was made to construct and operate a transfer facility at ETTP in the future, additional NEPA review would be conducted.

Conversion Product Sale and Use. The conversion of the DUF_6 inventory produces products having some potential for reuse. These products include aqueous HF and CaF_2, which are commonly used as commercial materials. DOE is currently pursuing the establishment of authorization limits (allowable concentration limits of uranium) in these products to be able to free-release them to commercial users. In addition, there is a small potential for reuse of the depleted uranium oxide product.

D&D Activities. D&D impacts would be primarily from external radiation to involved workers and would be a small fraction of allowable doses. Wastes generated during D&D operations would be disposed of in an appropriate disposal facility and would result in low impacts in comparison with projected site annual generation volumes.

Cumulative Impacts. The FEIS analyses indicated that no significant cumulative impacts at either the Portsmouth or the ETTP site and its vicinity would be anticipated due to the incremental impacts of the proposed action when added to other past, present, and reasonably foreseeable future actions.

Option of Expanding Conversion Facility Operations. The throughput of the Portsmouth facility could be increased either by making process efficiency improvements or by adding an additional (fourth) process line. The addition of a fourth process line at the Portsmouth facility would require the installation of additional plant equipment and would result in a nominal 33% increase in throughput compared with the current base design. This throughput increase would reduce the time necessary to convert the Portsmouth and ETTP DUF_6 inventories by about 5 years. The construction impacts presented in the FEIS would be the same if a fourth line was added, because the analyses in the FEIS used a footprint sized to accommodate four process lines. In general, a 33% increase in throughput would not result in significantly greater environmental impacts during operations than with three parallel lines. Although annual impacts in certain areas might increase up to 33% (proportional to the throughput increase), the estimated annual impacts during operations would remain well within applicable guidelines and regulations, with collective and cumulative impacts being quite low.

The conversion facility operations could be extended to process any additional DUF_6 for which DOE might assume responsibility by operating the facility longer than the currently anticipated 18 years. With routine facility and equipment maintenance and periodic equipment replacements or upgrades, it is believed that the conversion facility could be operated safely beyond this time period. If operations were extended beyond 18 years and if the operational characteristics (*e.g.*, estimated releases of contaminants to air and water) of the facility remained unchanged, it is expected that the annual impacts would be essentially unchanged.

V. Environmentally Preferred Alternative

In general, the FEIS shows greater impacts for the no action alternative than for the proposed action of constructing and operating the conversion facility mainly because of the relatively higher radiation exposures of the workers from the cylinder management operations and cylinder yards and because the cylinders and associated risk would remain if no action occurred. However, considering the uncertainties in the impact estimates and the magnitude of the impacts, the differences are not considered to be significant. The no action alternative has the potential for groundwater contamination with uranium over the long-term; this adverse impact is not anticipated under the proposed action alternatives. Beneficial socioeconomic impacts would be higher for the action alternatives than for the no action alternative.

The impacts associated with transportation of materials among sites would be comparable whether the transportation is by truck or rail.

With all alternatives, there is the potential for some high-consequence accidents to occur. The risks associated with such accidents can only be completely eliminated when the conversion of the DUF_6 inventory has been completed.

Although there are some differences in impacts among the three alternative locations for the conversion facility, these differences are small and well within the uncertainties associated with the methods used to estimate impacts. In general, because of the relatively small risks that would result under all alternatives and the absence of any clear basis for discerning an environmental preference, DOE concludes that no single alternative analyzed in depth in the FEIS is clearly environmentally preferable compared to the other alternatives.

VI. Comments on Final EIS

The Final EIS was mailed to stakeholders in early June 2004, and the EPA issued a Notice of Availability in the **Federal Register** on June 18, 2004. The entire document was also made available on the World Wide Web. Two comment letters were received on the DUF_6 Conversion Facility Final EISs. The State of Nevada indicated that it had no comments on the Final EISs and that the proposal was not in conflict with state plans, goals, or objectives. The U.S. Environmental Protection Agency, Region 5 in Chicago, stated that the Portsmouth Final EIS adequately address its concerns, and that it concurs with the Preferred Alternative and has no further concerns.

Decision

I. Bases for the Decision

DOE considered potential environmental impacts as identified in the FEIS (including the information contained in the classified appendix); cost; applicable regulatory requirements; Congressional direction as included in Pub. L. 105–204 and Pub. L. 107–206; agreements among DOE and the States of Ohio, Tennessee, and Kentucky concerning the management of DUF_6 currently stored at the Portsmouth, ETTP, and Paducah sites, respectively; and public comments in arriving at its decision. In deciding among the three alternative locations at the Portsmouth site for the conversion facility, DOE considered environmental factors, site preparation requirements affecting construction, availability of utilities, proximity to cylinder storage areas, and potential impacts to current or planned site operations. DOE has determined that Location A is the best alternative. DOE believes that the decision identified below best meets its programmatic goals and is consistent with all the regulatory requirements and public laws.

II. Decision

DOE has decided to implement the actions described in the preferred alternative from the FEIS at Location A. This decision includes the following actions:

• DOE will construct and operate the conversion facility at Location A within the Portsmouth site. Construction will commence on or before July 31, 2004, as intended by Congress in Pub. L. 107–206.

• DUF_6 cylinders currently stored at ETTP will be shipped to Portsmouth for conversion; a new cylinder yard will be constructed, if necessary, based on the availability of storage yard space when the cylinders are received.

• All shipments to and from the sites, including the shipment of UF_6 cylinders (DUF_6 and non-DUF_6) currently stored at ETTP to Portsmouth, will be conducted by either truck or rail, as appropriate. Cylinders will be shipped in a manner that is consistent with DOT regulations for the transportation of UF_6 cylinders.

• Although efficiency improvements can be accomplished, which would increase the conversion facility's throughput and decrease the operational period, DOE has decided not to add the fourth processing line to the conversion facility at this time.

• Current cylinder management activities (handling, inspection, monitoring, and maintenance) will continue, consistent with the Depleted Uranium Hexafluoride Management Plan included in the Ohio EPA Director's final findings and orders effective February 1998 and March 2004, which cover actions needed to meet safety and environmental requirements, until conversion could be accomplished.

• The aqueous HF produced during conversion will be sold for use, pending approval of authorized release limits as appropriate. If necessary, CaF_2 will be produced and reused, pending approval of authorized release limits, or disposed of as appropriate.

• The depleted U_3O_8 conversion product will be reused to the extent possible or packaged for disposal in emptied cylinders at an appropriate disposal facility. DOE plans to decide the specific disposal location(s) for the depleted U_3O_8 conversion product after additional appropriate NEPA review. Accordingly, DOE will continue to evaluate its disposal options and will consider any further information or comments relevant to that decision. DOE will give a minimum 45-day notice before making the specific disposal decision and will provide any supplemental NEPA analysis for public review and comment.

III. Mitigation

On the basis of the analyses conducted for the FEIS, the DOE will adopt all practicable measures, which are described below, to avoid or minimize adverse environmental impacts that may result from constructing and operating a conversion facility at Location A. These measures are either explicitly part of the alternative or are already performed as part of routine operations.

• The conversion facility will be designed, constructed, and operated in accordance with the comprehensive set of DOE requirements and applicable regulatory requirements that have been established to protect public health and the environment. These requirements encompass a wide variety of areas, including radiation protection, facility design criteria, fire protection, emergency preparedness and response, and operational safety requirements.

- Cylinder management activities will be conducted in accordance with applicable DOE safety and environmental requirements, including the Cylinder Management Plan.
- Temporary impacts on air quality from fugitive dust emissions during reconstruction of cylinder yards or construction of any new facility will be controlled by the best available practices, as necessary, to comply with the established standards for PM_{10} and $PM_{2.5}$.
- During construction, impacts to water quality and soil will be minimized through implementing storm water management, sediment and erosion controls, and good construction practices consistent with the Soil, Erosion, and Sediment Control Plan and Construction Management Plan.
- If live trees with exfoliating bark are encountered on construction areas, they will be saved if possible to avoid destroying potential habitat for the Indiana bat.

Issued in Washington, DC, this 20th day of July, 2004.

Paul M. Golan,

Principal Deputy Assistant Secretary for Environmental Management.

[FR Doc. 04–17048 Filed 7–26–04; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Record of Decision for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, KY, Site

AGENCY: Department of Energy.

ACTION: Record of decision.

SUMMARY: The Department of Energy (DOE) prepared a Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, Kentucky, Site (FEIS) (DOE/EIS–0359). The FEIS Notice of Availability was published by the U.S. Environmental Protection Agency (EPA) in the Federal Register (69 FR 34161) on June 18, 2004. In the FEIS, DOE considered the potential environmental impacts from the construction, operation, maintenance, and decontamination and decommissioning (D&D) of the proposed depleted uranium hexafluoride (DUF_6) conversion facility at three alternative locations within the Paducah site, including transportation of depleted uranium conversion products and waste materials to a disposal facility; transportation and sale of the aqueous hydrogen fluoride (HF) produced as a conversion co-product; and neutralization of aqueous HF to calcium fluoride (CaF_2) and its sale or disposal in the event that the aqueous HF product is not sold. An option of shipping the East Tennessee Technology Park (ETTP) cylinders to the Paducah site has also been considered, as has an option of expanding operations by increasing efficiency or extending the period of operation. A similar EIS was issued concurrently for construction and operation of a DUF_6 conversion facility at DOE's Portsmouth, Ohio, site (DOE/EIS–0360).

DOE has decided to construct and operate the conversion facility in the south-central portion of the Paducah site, the preferred alternative identified in the FEIS as Location A. Groundbreaking for construction of the facility will commence on or before July 31, 2004, as anticipated by Public Law (Pub. L.) 107–206. The aqueous HF produced during conversion will be sold for use, pending approval of authorized release limits, as appropriate.

ADDRESSES: The FEIS and this Record of Decision (ROD) are available on the DOE National Environmental Policy Act (NEPA) Web site at *http://www.eh.doe.gov/nepa* and on the Depleted UF_6 Management Information Network Web site at *http://web.ead.anl.gov/uranium*. Copies of the FEIS and this ROD may be requested by e-mail at *Pad_DUF6@anl.gov*, by toll-free telephone at 1–866–530–0944, by toll-free fax at 1–866–530–0943, or by contacting Gary S. Hartman, Oak Ridge Operations Office, U.S. Department of Energy, SE–30–1, P.O. Box 2001, Oak Ridge, Tennessee 37831.

FOR FURTHER INFORMATION CONTACT: For information on the conversion facility construction and operation, contact Gary Hartman at the address listed above. For general information on the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance (EH–42), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

I. Background

The United States has produced DUF_6 since the early 1950s as part of the process of enriching natural uranium for both civilian and military applications. Production took place at three gaseous diffusion plants (GDPs), first at the K–25 site (now called ETTP) at Oak Ridge, Tennessee, and subsequently at Paducah, Kentucky, and Portsmouth, Ohio. The K–25 plant ceased enrichment operations in 1985, and the Portsmouth plant ceased enrichment operations in 2001. The Paducah GDP continues to operate.

Approximately 440,000 t (484,000 tons) of DUF_6 is presently stored at Paducah in about 36,200 cylinders. The majority of the cylinders weigh approximately 12 t (14 tons) each, are 48 inches (1.2 m) in diameter, and are stored on outside pads. DOE has been looking at alternatives for managing this inventory. Also in storage at Paducah are approximately 1,940 cylinders of various sizes that contain enriched UF_6 or normal UF_6 (collectively called "non-DUF_6" cylinders) or are empty. [The non-DUF_6 cylinders would not be processed in the conversion facility.]

As a first step, DOE evaluated potential broad management options for its DUF_6 inventory in a Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride (DUF_6 PEIS) (DOE/EIS–0269) issued in April 1999. In the PEIS Record of Decision (64 FR 43358, August 10, 1999), DOE decided to promptly convert the DUF_6 inventory to a more stable uranium oxide form and stated that it would use the depleted uranium oxide as much as possible and store the remaining depleted uranium oxide for potential future uses or disposal, as necessary. In addition, DOE would convert DUF_6 to depleted uranium metal, but only if uses for metal were available. DOE did not select specific sites for the conversion facilities but reserved that decision for subsequent NEPA review. Today's Record of Decision announces the outcome of that site-specific NEPA review. DOE is also issuing today a separate but related ROD announcing the siting of a DUF_6 conversion facility at Portsmouth, Ohio.

Congress enacted two laws that directly addressed DOE's management of its DUF_6 inventory. The first law, Public Law 105–204, signed by the President in July 1998, required the Secretary of Energy to prepare a plan to commence construction of, no later than January 31, 2004, and to operate an on-site facility at each of the GDPs at accordance with the comprehensive set of DOE requirements and applicable regulatory requirements that have been established to protect public health and the environment. These requirements encompass a wide variety of areas, including radiation protection, facility design criteria, fire protection, emergency preparedness and response, and operational safety requirements.

- Cylinder management activities will be conducted in accordance with applicable DOE safety and environmental requirements, including the Cylinder Management Plan.
- Temporary impacts on air quality from fugitive dust emissions during reconstruction of cylinder yards or construction of any new facility will be controlled by the best available practices, as necessary, to comply with the established standards for PM_{10} and $PM_{2.5}$.
- During construction, impacts to water quality and soil will be minimized through implementing storm water management, sediment and erosion controls, and good construction practices consistent with the Soil, Erosion, and Sediment Control Plan and Construction Management Plan.
- If live trees with exfoliating bark are encountered on construction areas, they will be saved if possible to avoid destroying potential habitat for the Indiana bat.

Issued in Washington, DC, this 20th day of July, 2004.

Paul M. Golan,

Principal Deputy Assistant Secretary for Environmental Management.

[FR Doc. 04-17048 Filed 7-26-04; 8:45 am]

BILLING CODE 6450-01-P

DEPARTMENT OF ENERGY

Record of Decision for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, KY, Site

AGENCY: Department of Energy.

ACTION: Record of decision.

SUMMARY: The Department of Energy (DOE) prepared a Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, Kentucky, Site (FEIS) (DOE/EIS-0359). The FEIS Notice of Availability was published by the U.S. Environmental Protection Agency (EPA) in the Federal Register (69 FR 34161) on June 18, 2004. In the FEIS, DOE considered the potential environmental impacts from the construction, operation, maintenance, and decontamination and decommissioning (D&D) of the proposed depleted uranium hexafluoride (DUF_6) conversion facility at three alternative locations within the Paducah site, including transportation of depleted uranium conversion products and waste materials to a disposal facility; transportation and sale of the aqueous hydrogen fluoride (HF) produced as a conversion co-product; and neutralization of aqueous HF to calcium fluoride (CAF_2) and its sale or disposal in the event that the aqueous HF product is not sold. An option of shipping the East Tennessee Technology Park (ETTP) cylinders to the Paducah site has also been considered, as has an option of expanding operations by increasing efficiency or extending the period of operation. A similar EIS was issued concurrently for construction and operation of a DUF_6 conversion facility at DOE's Portsmouth, Ohio, site (DOE/EIS-0360).

DOE has decided to construct and operate the conversion facility in the south-central portion of the Paducah site, the preferred alternative identified in the FEIS as Location A. Groundbreaking for construction of the facility will commence on or before July 31, 2004, as anticipated by Public Law (Pub. L.) 107-206. The aqueous HF produced during conversion will be sold for use, pending approval of authorized release limits, as appropriate.

ADDRESSES: The FEIS and this Record of Decision (ROD) are available on the DOE National Environmental Policy Act (NEPA) Web site at *http://www.eh.doe.gov/nepa* and on the Depleted UF_6 Management Information Network Web site at *http://web.ead.anl.gov/uranium*. Copies of the FEIS and this ROD may be requested by e-mail at *Pad_DUF6@anl.gov*, by toll-free telephone at 1-866-530-0944, by toll-free fax at 1-866-530-0943, or by contacting Gary S. Hartman, Oak Ridge Operations Office, U.S. Department of Energy, SE-30-1, P.O. Box 2001, Oak Ridge, Tennessee 37831.

FOR FURTHER INFORMATION CONTACT: For information on the conversion facility construction and operation, contact Gary Hartman at the address listed above. For general information on the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance (EH-42), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, 202-586-4600, or leave a message at 1-800-472-2756.

SUPPLEMENTARY INFORMATION:

I. Background

The United States has produced DUF_6 since the early 1950s as part of the process of enriching natural uranium for both civilian and military applications. Production took place at three gaseous diffusion plants (GDPs), first at the K-25 site (now called ETTP) at Oak Ridge, Tennessee, and subsequently at Paducah, Kentucky, and Portsmouth, Ohio. The K-25 plant ceased enrichment operations in 1985, and the Portsmouth plant ceased enrichment operations in 2001. The Paducah GDP continues to operate.

Approximately 440,000 t (484,000 tons) of DUF_6 is presently stored at Paducah in about 36,200 cylinders. The majority of the cylinders weigh approximately 12 t (14 tons) each, are 48 inches (1.2 m) in diameter, and are stored on outside pads. DOE has been looking at alternatives for managing this inventory. Also in storage at Paducah are approximately 1,940 cylinders of various sizes that contain enriched UF_6 or normal UF_6 (collectively called "non-DUF_6" cylinders) or are empty. [The non-DUF_6 cylinders would not be processed in the conversion facility.]

As a first step, DOE evaluated potential broad management options for its DUF_6 inventory in a Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride (DUF_6 PEIS) (DOE/EIS-0269) issued in April 1999. In the PEIS Record of Decision (64 FR 43358, August 10, 1999), DOE decided to promptly convert the DUF_6 inventory to a more stable uranium oxide form and stated that it would use the depleted uranium oxide as much as possible and store the remaining depleted uranium oxide for potential future uses or disposal, as necessary. In addition, DOE would convert DUF_6 to depleted uranium metal, but only if uses for metal were available. DOE did not select specific sites for the conversion facilities but reserved that decision for subsequent NEPA review. Today's Record of Decision announces the outcome of that site-specific NEPA review. DOE is also issuing today a separate but related ROD announcing the siting of a DUF_6 conversion facility at Portsmouth, Ohio.

Congress enacted two laws that directly addressed DOE's management of its DUF_6 inventory. The first law, Public Law 105-204, signed by the President in July 1998, required the Secretary of Energy to prepare a plan to commence construction of, no later than January 31, 2004, and to operate an on-site facility at each of the GDPs at

LES Exhibit 75

Paducah, Kentucky, and Portsmouth, Ohio, to treat and recycle DUF_6, consistent with NEPA. The second law, Public Law 107–206, signed by the President on August 2, 2002, required that no later than 30 days after enactment, DOE must award a contract for the scope of work described in its Request for Proposals (RFP) issued in October 2000 for the design, construction, and operation of a DUF_6 conversion facility at each of the Department's Paducah, Kentucky, and Portsmouth, Ohio, gaseous diffusion sites. It also stipulated that the contract require groundbreaking for construction to occur no later than July 31, 2004, at both sites.

In response to these laws, DOE issued the *Final Plan for the Conversion of Depleted Uranium Hexafluoride* as Required by Public Law 105–204 in July 1999, and awarded a contract to Uranium Disposition Services (UDS) for construction and operation of two conversion facilities on August 29, 2002, consistent with NEPA.

On September 18, 2001, DOE published a Notice of Intent (NOI) in the Federal Register (66 FR 48123) announcing its intention to prepare an EIS for the proposed action to construct, operate, maintain, and decontaminate and decommission two DUF_6 conversion facilities: One at Portsmouth and one at Paducah. Following the enactment of Public Law 107–206, DOE reevaluated the appropriate scope of its site-specific NEPA review and decided to prepare two separate EISs, one for the plant proposed for the Paducah site and a second for the Portsmouth site. This change in approach was announced in the Federal Register on April 28, 2003 (68 FR 22368).

The two draft conversion facility EISs were mailed to stakeholders in late November 2003, and a Notice of Availability was published by the EPA in the Federal Register on November 28, 2003 (68 FR 66824). Comments on the draft EISs were accepted during a 67-day review period that ended on February 2, 2004. DOE considered these comments and prepared two FEISs. The Notice of Availability for the two FEISs was published by the EPA in the Federal Register (69 FR 34161) on June 18, 2004.

II. Purpose and Need for Agency Action

DOE needs to convert its inventory of DUF_6 to more stable chemical form(s) for use or disposal. This need follows directly from (1) the decision presented in the August 1999 ROD for the PEIS, namely, to begin conversion of the DUF_6 inventory as soon as possible, and (2) Public Law 107–206, which directs DOE to award a contract for construction and operation of conversion facilities at both the Paducah site and the Portsmouth site.

III. Alternatives

No Action Alternative. Under the no action alternative, conversion would not occur. Current cylinder management activities (handling, inspection, monitoring, and maintenance) would continue; thus the status quo would be maintained at Paducah indefinitely.

Action Alternatives. The proposed action evaluated in the FEIS is to construct and operate a conversion facility at the Paducah site for conversion of the Paducah DUF_6 inventory into depleted uranium oxide (primarily triuranium octaoxide [U_3O_8]) and other conversion products. The FEIS review is based on the conceptual conversion facility design proposed by the selected contractor, UDS. The UDS dry conversion process is a continuous process in which DUF_6 is vaporized and converted to a mixture of uranium oxides (primarily U_3O_8) by reaction with steam and hydrogen in a fluidized-bed conversion unit. The hydrogen is generated from anhydrous ammonia (NH_3). The depleted U_3O_8 powder is collected and packaged for disposition in bulk bags (large-capacity, strong, flexible bags) or the emptied cylinders to the extent practicable. Equipment would also be installed to collect the aqueous HF (also called HF acid) co-product and process it into HF at concentrations suitable for commercial resale. A backup HF acid neutralization system would convert up to 100% of the HF acid to CaF_2 for sale or disposal in the future, if necessary. The conversion products would be transported to a disposal facility or to users by truck or rail. The conversion facility will be designed with four parallel processing lines to convert 18,000 t (20,000 tons) of DUF_6 per year, requiring 25 years to convert the Paducah inventory.

Three alternative locations within the site were evaluated, Locations A (preferred), B, and C. In addition, an option of transporting the ETTP cylinders to Paducah rather than to Portsmouth was considered, as was an option of expanding conversion facility operations.

Alternative Location A (Preferred Alternative). Location A is the preferred location for the conversion facility. It is located south of the administration building and its parking lot, immediately west of and next to the primary location of the DOE cylinder yards and east of the main plant access road. This location is an L-shaped tract consisting mostly of grassy field. However, the southeastern section is a wooded area. A drainage ditch crosses the northern part of the site, giving the cylinder yard storm water access to Kentucky Pollution Discharge Elimination System (KPDES) Outfall 017. This location is about 35 acres (14 ha) in size and was identified in the RFP for conversion services as the site for which bidders were to design their proposed facilities.

Alternative Location B. Location B is directly south of the Paducah maintenance building and west of the main plant access road. The northern part of this location is mowed grass and has a slightly rolling topography. The southern part has a dense covering of trees and brush, and some high-voltage power lines cross it, limiting its use. This location has an area of about 59 acres (23 ha).

Alternative Location C. Location C is east of the Paducah pump house and cooling towers. It has an area of about 53 acres (21 ha). Dykes Road runs through the center of this location from north to south. Use of the eastern half of this location could be somewhat limited because several high-voltage power lines run through this area.

Under the action alternatives, DOE evaluated the impacts from packaging, handling, and transporting depleted uranium oxide conversion product (primarily U_3O_8) from the conversion facility to a low-level waste (LLW) disposal facility that would be (1) selected in a manner consistent with DOE policies and orders and (2) authorized to receive the conversion products by DOE (in conformance with DOE orders), or licensed by the U.S. Nuclear Regulatory Commission (NRC) (in conformance with NRC regulations), or an NRC Agreement State agency (in conformance with state laws and regulations determined to be equivalent to NRC regulations). Assessment of the impacts and risks from on-site handling and disposal at an LLW disposal facility has been deferred to the disposal site's site-specific NEPA or licensing documents. While the FEIS presents the impacts from transporting the DUF_6 conversion products to both the Envirocare of Utah, Inc., facility and the Nevada Test Site (NTS), DOE plans to decide the specific disposal location(s) for the depleted U_3O_8 conversion product after additional NEPA review, as necessary. Accordingly, DOE will continue to evaluate its disposal options and will consider any further information or comments relevant to that decision. DOE will give a minimum 45-day notice before making its specific disposal decision and will provide any additional NEPA analysis for public review and comment.

The following alternatives were considered but not analyzed in detail in the FEIS: Use of Commercial Conversion Capacity, Sites Other Than Paducah, Alternative Conversion Processes, Long-Term Storage and Disposal Alternatives, Transportation Modes Other Than Truck and Rail, and One Conversion Plant Alternative.

IV. Summary of Environmental Impacts

The FEIS evaluated potential impacts from the range of alternatives described above. The impact areas included human health and safety, air quality, noise, water and soil, socioeconomics, ecological resources, waste management, resource requirements, land use, cultural resources, environmental justice, and cumulative impacts. In general, the impacts are low for both the no action and the proposed action alternatives. Among the three alternative locations considered at the Paducah site for the conversion facility, there are no major differences in impacts that would make one location clearly environmentally preferable. The discussion below summarizes the results of the FEIS impact analyses, highlighting the differences among the alternatives.

Human Health and Safety—Normal Operations and Transportation. Under all alternatives, it is estimated that potential exposures of workers and members of the general public to radiation and chemicals would be well within applicable public health standards and regulations. UDS would confirm, prior to conversion or at the initiation of the conversion operations, that polychlorinated biphenyl (PCB) releases to the workplace from the paint coating of some cylinders manufactured prior to 1978 would be within applicable Occupational Safety and Health Administration (OSHA) limits. Transportation by rail would tend to cause fewer impacts than by truck primarily because of exhaust emissions from the trucks and the higher number of shipments for trucks than for rail. The option of converting the aqueous HF to CaF_2 and transporting the CaF_2 to a disposal facility would result in increased shipments. The impacts associated with transportation of uranium oxide product to a disposal facility in the western United States by truck would be about the same if bulk bags are used or two filled cylinders are loaded onto a truck. If only one cylinder is loaded onto a truck, the impacts would be higher because of the increased number of shipments.

Human Health and Safety—Accidents. DOE has extensive experience in safely storing, handling, and transporting cylinders containing UF_6 (depleted, normal, or enriched). In addition, the chemicals used or generated at the conversion facility are commonly used for industrial applications in the United States, and there are well-established accident prevention and mitigative measures for their storage and transportation.

Under all alternatives, it is possible that accidents could release radiation or chemicals to the environment, potentially affecting both the workers and members of the general public. It is also possible that, similar to other industrial facilities, workers could be injured or killed as a result of on-the-job accidents unrelated to radiation or chemical exposure. Similarly, during transportation of materials, both crew members and members of the public may be injured or killed as a result of traffic accidents.

Three kinds of accidents have the largest possible consequences: (1) Those involving the DUF_6 cylinders during storage and handling under all alternatives, (2) those involving chemicals used or generated by the conversion process at the conversion site (in particular NH_3 and aqueous HF) under the action alternatives, and (3) those occurring during transportation of chemicals and cylinders under the action alternatives. The severity of the consequences from such accidents would depend on weather conditions at the time of the accident, and, in the case of the transportation accidents, the location of the accident, and could be significant. However, those accidents would have a low estimated probability of occurring, making the risk low. (Risk is determined by multiplying the consequences by the probability of occurrence).

In comparing truck versus rail transportation, even though the consequences of rail accidents are generally higher (because of the larger cargo load per railcar than per truck), the accident probabilities tend to be lower for railcars than for trucks. As a result, the risks of accidents would be about the same under either option.

Under the no action alternative, the risks associated with cylinder storage and handling would continue to exist as long as the cylinders are there. However, under the action alternatives, the risks associated with both the cylinder accidents and the chemical accidents would decline over time and disappear at the completion of the project.

Air Quality and Noise. Under the action alternatives, the total (modeled plus background value) concentrations due to emissions of most criteria pollutants—such as sulfur dioxide, nitrogen oxides, and carbon monoxide—would be well within applicable air quality standards. For construction, the primary concern would be particulate matter (PM) released from near-ground-level sources. Total concentrations of PM_{10} and $PM_{2.5}$ (PM with an aerodynamic diameter of 10 μm or less and 2.5 μm or less, respectively) at the construction site boundaries would be close to or above the standards because of the high background concentrations. Accordingly, construction activities would be conducted so as to minimize further impacts on ambient air quality.

Water and Soil. During construction of the conversion facility, concentrations of any potential contaminants in soil, surface water, or groundwater would be kept well within applicable standards or guidelines by implementing storm water management, sediment and erosion controls, and good construction practices. During operations, no impacts would be expected because no contaminated liquid effluents are anticipated.

Socioeconomics. Under the action alternatives, construction and operation of the conversion facility would create more jobs and personal income in the vicinity of the Paducah site than would be possible under the no action alternative. The number of jobs would be approximately 190 direct and 290 total during construction, and 160 direct and 330 total during operations.

Ecology. For the action alternatives, the total area disturbed during conversion facility construction would be up to 45 acres (18 ha). Although vegetation communities in the disturbed area would be impacted by a loss of habitat, impacts could be minimized (*e.g.*, by appropriate placement of the facility within each location), and negligible long-term impacts to vegetation and wildlife are expected at all locations. Impacts to wetlands could be minimized, depending on where exactly the facility was placed within each location and by maintaining a buffer near adjacent wetlands during construction. Construction of the conversion facility in the eastern portion of Location C could impact potential habitat for cream wild indigo (state-listed as a species of special concern) and compass plant (state-listed as threatened). For construction at all three locations, potential impacts to forested areas could be avoided if temporary construction areas were placed in previously disturbed locations. During construction, trees with exfoliating bark (such as shagbark hickory or dead trees with loose bark) that can be used by the Indiana bat (federal- and state-listed as endangered) as roosting trees during the summer would be saved if possible.

Waste Management. Under the action alternatives, waste generated during construction and operations would have negligible impacts on the Paducah site waste management operations, with the exception of possible impacts from disposal of CaF_2. If the aqueous HF were not sold but instead neutralized to CaF_2, it is currently unknown whether (1) the CaF_2 could be sold, (2) the low uranium content would allow the CaF_2 to be disposed of as nonhazardous solid waste, or (3) disposal as LLW would be required. The low level of uranium contamination expected (*i.e.*, less than 1 ppm) suggests that sale or disposal as nonhazardous solid waste would be most likely. Waste management for disposal as nonhazardous waste could be handled through appropriate planning and design of the facilities. If the CaF_2 had to be disposed of as LLW, it could represent a potentially large impact on waste management operations.

The U_3O_8 produced during conversion would amount to about 80% of Paducah's annual projected LLW volume.

Option of Shipping ETTP Cylinders to Paducah. The cylinders at ETTP would require preparation for shipment by either truck or rail. Three cylinder preparation options were considered for the shipment of noncompliant cylinders: cylinder overpacks, shipping "as-is" under a U.S. Department of Transportation (DOT) exemption, and use of a cylinder transfer facility (there are no current plans to build such a facility at ETTP). The operational impacts (*e.g.*, storage, handling, and maintenance of cylinders) from any of the options would be small and limited primarily to external radiation exposure of involved workers. The annual impacts from conversion operations at Paducah would remain the same, however the conversion period would be approximately 3 years longer. If a decision was made to construct and operate a transfer facility at ETTP in the future, additional NEPA review would be conducted.

Conversion Product Sale and Use. The conversion of the DUF_6 inventory produces products having some potential for reuse. These products include aqueous HF and CaF_2, which are commonly used as commercial materials. DOE is currently pursuing the establishment of authorization limits (allowable concentration limits of uranium) in these products to be able to free-release them to commercial users. In addition, there is a small potential for reuse of the depleted uranium oxide product.

D&D Activities. D&D impacts would be primarily from external radiation to involved workers and would be a small fraction of allowable doses. Wastes generated during D&D operations would be disposed of in an appropriate disposal facility and would result in low impacts in comparison with projected site annual generation volumes.

Cumulative Impacts. The FEIS analyses indicated that no significant cumulative impacts at the Paducah site and its vicinity would be anticipated due to the incremental impacts of the proposed action when added to other past, present, and reasonably foreseeable future actions.

Option of Expanding Conversion Facility Operations. The throughput of the Paducah facility could be increased by making process efficiency improvements. Such an increase would not be expected to significantly change the overall environmental impacts when compared with those of the current plant design.

The conversion facility operations could be extended to process any additional DUF_6 for which DOE might assume responsibility by operating the facility longer than the currently anticipated 25 years. With routine facility and equipment maintenance and periodic equipment replacements or upgrades, it is believed that the conversion facility could be operated safely beyond this time period. If operations were extended beyond 25 years and if the operational characteristics (*e.g.*, estimated releases of contaminants to air and water) of the facility remained unchanged, it is expected that the annual impacts would be essentially unchanged.

V. Environmentally Preferred Alternative

In general, the FEIS shows greater impacts for the no action alternative than for the proposed action of constructing and operating the conversion facility mainly because of the relatively higher radiation exposures of the workers from the cylinder management operations and cylinder yards and because the cylinders and associated risk would remain if no action occurred. However, considering the uncertainties in the impact estimates and the magnitude of the impacts, the differences are not considered to be significant. The no action alternative has the potential for groundwater contamination with uranium over the long-term; this adverse impact is not anticipated under the proposed action alternatives. Beneficial socioeconomic impacts would be higher for the action alternatives than for the no action alternative.

The impacts associated with transportation of materials among sites would be comparable whether the transportation is by truck or rail.

With all alternatives, there is the potential for some high-consequence accidents to occur. The risks associated with such accidents can only be completely eliminated when the conversion of the DUF_6 inventory has been completed.

Although there are some differences in impacts among the three alternative locations for the conversion facility, these differences are small and well within the uncertainties associated with the methods used to estimate impacts. In general, because of the relatively small risks that would result under all alternatives and the absence of any clear basis for discerning an environmental preference, DOE concludes that no single alternative analyzed in depth in the FEIS is clearly environmentally preferable compared to the other alternatives.

VI. Comments on Final EIS

The Final EIS was mailed to stakeholders in early June 2004, and the EPA issued a Notice of Availability in the Federal Register on June 18, 2004. The entire document was also made available on the World Wide Web. Two comment letters were received on the DUF_6 Conversion Facility Final EISs. The State of Nevada indicated that it had no comments on the Final EISs and that the proposal was not in conflict with state plans, goals, or objectives. The U.S. Environmental Protection Agency, Region 5 in Chicago, stated that the Portsmouth Final EIS adequately address its concerns, and that it concurs with the Preferred Alternative and has no further concerns.

Decision

I. Bases for the Decision

DOE considered potential environmental impacts as identified in the FEIS (including the information contained in the classified appendix); cost; applicable regulatory requirements; Congressional direction as included in Public Law 105–204 and 107–206; agreements among DOE and the States of Ohio, Tennessee, and Kentucky concerning the management of DUF_6 currently stored at the Portsmouth, ETTP, and Paducah sites, respectively; and public comments in arriving at its decision. In deciding among the three alternative locations at the Paducah site for the conversion facility, DOE considered environmental factors, site preparation requirements affecting construction, availability of utilities, proximity to cylinder storage areas, and potential impacts to current or planned site operations. DOE has determined that Location A is the best alternative. DOE believes that the decision identified below best meets its programmatic goals and is consistent with all the regulatory requirements and public laws.

II. Decision

DOE has decided to implement the actions described in the preferred alternative from the FEIS at Location A. This decision includes the following actions:

- DOE will construct and operate the conversion facility at Location A within the Paducah site. Construction will commence on or before July 31, 2004, as intended by Congress in Public Law 107–206.
- All shipments to and from the conversion site, including any potential shipments of non-DUF_6 cylinders currently stored at ETTP to Paducah, will be conducted by either truck or rail, as appropriate. Cylinders will be shipped in a manner that is consistent with DOT regulations for the transportation of UF_6 cylinders.
- Current cylinder management activities (handling, inspection, monitoring, and maintenance) will continue, consistent with the Cylinder Project Management Plan for Depleted Uranium Hexafluoride, effective October 2003, which cover actions needed to meet safety and environmental requirements, until conversion could be accomplished.
- The aqueous HF produced during conversion will be sold for use, pending approval of authorized release limits as appropriate. If necessary, CaF_2 will be produced and reused, pending approval of authorized release limits, or disposed of as appropriate.
- The depleted U_3O_8 conversion product will be reused to the extent possible or packaged for disposal in emptied cylinders at an appropriate disposal facility. DOE plans to decide the specific disposal location(s) for the depleted U_3O_8 conversion product after additional appropriate NEPA review. Accordingly, DOE will continue to evaluate its disposal options and will consider any further information or comments relevant to that decision. DOE will give a minimum 45-day notice before making the specific disposal decision and will provide any supplemental NEPA analysis for public review and comment.

III. Mitigation

On the basis of the analyses conducted for the FEIS, the DOE will adopt all practicable measures, which are described below, to avoid or minimize adverse environmental impacts that may result from constructing and operating a conversion facility at Location A. These measures are either explicitly part of the alternative or are already performed as part of routine operations.

- The conversion facility will be designed, constructed, and operated in accordance with the comprehensive set of DOE requirements and applicable regulatory requirements that have been established to protect public health and the environment. These requirements encompass a wide variety of areas, including radiation protection, facility design criteria, fire protection, emergency preparedness and response, and operational safety requirements.
- Temporary impacts on air quality from fugitive dust emissions during reconstruction of cylinder yards or construction of any new facility will be controlled by the best available practices, as necessary, to comply with the established standards for PM_{10} and $PM_{2.5}$.
- During construction, impacts to water quality and soil will be minimized through implementing storm water management, sediment and erosion controls, and good construction practices consistent with the Soil, Erosion, and Sediment Control Plan and Construction Management Plan.
- If live trees with exfoliating bark are encountered on construction areas, they will be saved if possible to avoid destroying potential habitat for the Indiana bat.

Issued in Washington, DC this 20th day of July 2004.

Paul M. Golan,

Principal Deputy Assistant Secretary for Environmental Management.

[FR Doc. 04–17050 Filed 7–26–04; 8:45 am]

BILLING CODE 6450–01–U

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP04–368–000]

El Paso Natural Gas Company; Notice of Request for Authorization

July 2, 2004.

Take notice that on June 25, 2004, El Paso Natural Gas Company (El Paso), P.O. Box 1087, Colorado Springs, Colorado 80904, filed in Docket No. CP04–368–000, a request pursuant to section 157.216(b) and 157.208(b) of the Commission's Regulations (18 CFR 157.214) to abandon, by removal, its 7.1 mile 10¾ inch diameter Nevada Loop Line (Line No. 2112), and replace two segments of its 16 inch diameter Nevada Loop Line (Line No. 2121), totaling 17.2 miles, located in Mohave County, Arizona, all as more fully set forth in the application on file with the Commission and open for public review.

Any questions regarding this application should be directed to Robert T. Tomlinson, Director, Regulatory Affairs, El Paso Natural Gas Company, P.O. Box 1087, Colorado Springs, Colorado, 80944, at (719) 520–3788.

This filing is available for review at the Commission or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or call toll-free at (866) 208–3676, or for TTY, contact (202) 502–8659. Protests, comments and interventions may be filed electronically via the Internet in lieu of paper; see, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-Filing" link. The Commission strongly encourages interveners to file electronically.

Any person or the Commission's staff may, within 45 days after issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to section 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefore, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request

Defluorination of depleted UF6
The W defluorination facility

September 27th, 2004

Specifications of output products

Contaminants in U_3O_8 Product Main Impurities	Spec.	Routine Quantity
Free Fluorine	none	none
F as UO_2F_2	0.4%	0.1%

Contaminants in HF Product ppm Main Impurities	Spec.	Routine Quantity
Uranium	5	< 1
odium	10	7.4
Chromium	3	0.1
Nickel	3	0.1
Lead	10	0.5
Chlorides	50	<10
Sulfur Dioxide	100	15

Ms. Lynne D. Garner
Regulatory Affairs Coordinator
Starmet CMI
P.O. Box 1366
365 Metal Drive, Hwy. 80
Barnwell, SC 29812

April 1, 1999

Dear Ms. Garner:

This is in response to your letters dated September 23, 1998, October 27, 1998 and subsequent submittal which addressed additional information regarding your request to dispose of calcium fluoride (CaF_2) process waste with uranium concentration of ≤ 30 pCi/gm as non-regulated waste at a solid waste landfill. The Department has completed the review of your request and it is understood that the CaF_2 inventory currently in the facility has been sampled and appropriately classified. Likewise, as per your letter dated October 27, 1998, it is understood that the solid waste landfill facility is cognizant of the characteristics of the waste.

Approval is provided to dispose of the CaF_2 materials which meet the acceptance criteria of ≤ 30 pCi/gm as non-regulated waste at a solid waste landfill. Concurrence is provided to the Starmet Procedure WM-001, Rev. 1, "Calcium Fluoride Waste Inventory Control and Sampling Protocol" dated February 4, 1999. Be advised that sampling of the materials to meet disposal criteria must strictly adhere to and be in accordance with the manner outlined in the procedure. It is expected that in the event that the sample does not meet the specified acceptance criteria, the resampling protocol established in the procedure must be complied with.

Our office recommends that records of sampling and results of analysis be maintained in accordance with the requirements of the regulations and be made available during the routine facility inspection.

If you have any questions concerning these matters, please contact our office.

Very truly yours,

Virgil R. Autry, Director
Division of Radioactive Waste Management
Bureau of Land and Waste Management

CAF_2 .CMI/JS

D H E C
ROMOTE PROTECT PROSPER
500 Bull Street
'olumbia, SC 29201-1708

June 17, 1999

Ms. Lynne D. Garner
Regulatory Affairs Coordinator
Starmet, CMI
P.O. Box 1366
Barnwell, South Carolina 29812

Dear Ms. Garner:

This letter is in reference to the waste material that Starmet, CMI has considered for disposal at the Waste Control Specialists (WCS) Facility in Texas. We understand that in your discussions with the Texas Natural Resource Conservation Commission (TNRCC), the waste is acceptable for disposal at the WSC Facility. The Department exempts the Starmet generated calcium fluoride, surface contaminated metal and other uranium containing waste from the requirements of disposal at the licensed disposal facility under the following conditions.

1. The maximum concentration of uranium in the waste shall not exceed 0.05% by weight or 250 pCi/gm. Waste containing other licensed radionuclides is not acceptable for disposal at WCS.

2. Written approval must be obtained from the TNRCC that the waste is acceptable for disposal at WCS. A copy of the approval must be forwarded to the Department.

3. The waste must meet the WCS acceptance criteria.

4. Starmet shall report the volume and activity of waste disposed of at WCS in the monthly inventory report.

5. The waste must be disposed of at the WCS Texas Facility unless otherwise approved by the Department.

LES Exhibit 78

If you have questions concerning this approval, please do not hesitate to contact our office at (803) 896-4240.

Very truly yours,

Virgil R. Autry, Director
Division of Radioactive Waste Management
Bureau of Land and Waste Management

STAR1/HJP/aw

cc: Alice Rogers, TNRCC