RAS 10909

U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of Louisiana Energy Services LP
Docket No. 70-3103-ML Official Exhibit No. LES 85
OFFERED by Applicant/Licensee Intervenor
NRC Staff Other
IDENTIFIED on 10/24/05 Witness/Panel LES Deconversion
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clerk Bethany Engel

**Department of Energy**
Washington, DC 20585

March 1, 2005

Mr. Rod Krich
Vice President, Licensing, Safety and Nuclear Engineering
Louisiana Energy Services, LP
2600 Virginia Avenue, N.W. Suite 610
Washington, D.C. 20037

RE: Conversion and Disposal of Depleted Uranium Hexafluoride (DUF6) Generated by Louisiana Energy Services, LP (LES)

Dear Mr. Krich:

The purpose of this letter is to respond to LES' inquiry, as detailed in your letter dated February 28, 2005, as to the anticipated storage, conversion and disposal costs for the DUF6 Source Material product to be generated by LES' proposed commercial uranium enrichment facility, in the event LES were to request that the Secretary accept the DUF6 for disposal.

Should the Department decide to accept, upon request, such DUF6 for conversion and disposal pursuant to authorities granted to the Department under the Atomic Energy Act or other authorities, the Department's acceptance of such material would necessitate the negotiation of an agreement for storage, conversion and disposal services that would include full recovery of the Department's costs, including a pro rata share of any capital costs, and that would include the terms and conditions under which the Department would accept title to and possession of the DUF6.

In response to the initial inquiry made by LES, the Department initiated a cost estimate for providing conversion and disposal services to depleted uranium generators. The cost estimate is based on LES' projection that it would generate approximately 7,800 metric tons of DUF6 annually, expected to begin in 2010.

The Department estimates that the cost of converting and disposing of LES' projected DUF6 inventory would be approximately $3.34 per kilogram of DUF6 in 2004 dollars. This estimated price reflects the following costs: construction (capital costs); storage of the DUF6 pending conversion; DUF6 conversion; transportation of depleted uranium to a disposal site (approximately 1900 miles); disposal of depleted uranium oxide as Low Level Radioactive Waste; and decontamination and decommissioning (D&D) of the conversion facility. For completeness, this cost estimate also includes transportation (but not packaging for transportation) of the LES DUF6 to the conversion site (approximately 1500 miles).

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LES Exhibit 85



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The following is an approximate break-out of the four principal components of the cost estimate (per kilogram of DUF6):

| | |
|---|---|
| Conversion (capital and operating costs) | $2.68 |
| Transportation | $0.11 |
| Storage | $0.003 |
| Disposal (including D&D) | $0.55 |
| TOTAL | $3.34 |

The Department's cost estimate assumes that the DUF6 would be converted, stored, and disposed of consistent with the terms and conditions of the Department's current contract for the construction and operation of the conversion facilities at the Portsmouth and Paducah Gaseous Diffusion Plants and DUF6 storage facilities. The cost estimate also assumes that acceptance of LES' DUF6 would not alter the Department's currently anticipated operating conditions and assumptions for the storage, conversion, and disposal facilities. The cost estimate further assumes that LES' DUF6 cylinders would meet Department of Transportation (DOT) transportation requirements, and accordingly the cost estimate does not include any incremental costs for meeting such DOT requirements. The cost estimate does not assume any resale or reuse of any products resulting from the conversion process. The Department's cost estimate takes into account the conversion and disposal of LES' projected inventory as well as the Department's current inventory of DUF6.

The Department's cost estimate is a long-term forecast that is subject to recalculation and change as assumptions and circumstances change and as the Department receives actual cost and performance data from the conversion project after operations begin in the year 2007. The Department understands that LES may provide the estimate contained in this letter to the Nuclear Regulatory Commission (NRC) in support of LES' decommissioning cost estimate during the license application process, and that if a license is granted that there is an established process at the NRC for a licensee to adjust its decommissioning cost estimate every three years, and that this process would account for future refinements in the cost estimate for the disposal of depleted uranium. Before accepting any DUF6, the Department would have to comply with all applicable laws, including the National Environmental Policy Act. Additionally, this letter does not commit the Department to the expenditure of funds, and any agreement for acceptance of DUF6 is subject to the negotiation of terms and conditions, must be in writing, and signed by the authorized DOE official.

If you have any questions about the cost estimate or other contents of this letter, please contact Mr. Larry Brown, Senior Advisor at (202) 586-9500.

Sincerely,

Paul M. Golan
Principal Deputy Assistant Secretary for
Environmental Management