Summary of
Louisiana Energy Services In-Office Review on Decommissioning Funding

Dates: May 31, 2005

Place: U.S. Department of Energy (DOE) offices
Washington, D.C.

Attendees:

C. Dean/ICF	J. Mayer/ICF
B. Smith/NRC	L. Clark/NRC
T.C. Johnson/NRC	L. Brown/DOE
R. Mascelli/DOE	S. Rossi/DOE
S. Cuevas/DOE	J. Zimmerman/DOE
G. Westerbeck/LMI	D. Galli/LMI
R. Krich/LES	J. Curtiss/W&S

Purpose:

The purpose of this in-office review was to discuss DOE's cost estimate for dispositioning depleted uranium hexafluoride (UF_6) from uranium enrichment operations.

Discussion:

After introductions, Louisiana Energy Services (LES) staff indicated that they wanted to provide additional support for the DOE cost estimate for dispositioning depleted uranium from its uranium enrichment operations. On March 1, 2005, DOE had provided LES a cost estimate for dispositioning depleted uranium, if DOE should accept, upon request from LES, depleted uranium tails for conversion and disposal. If this dispositioning path is used, the uranium enrichment facility would be required to reimburse DOE its costs. Since the March 1, 2005, letter from DOE did not provide any supporting information on how the cost estimate was prepared, staff from the DOE contractor that prepared the estimate, LMI, discussed how the estimate was prepared. The cost basis is discussed in a proprietary report prepared by LMI.

LMI staff indicated that the DOE costs were developed based on an independent review of the DOE depleted uranium conversion project and were presented in 2004 dollars, discounted according to OMB directives. In preparing the report, LMI discussed information from the Uranium Disposition Services (UDS), the DOE contractor for the conversion project. The cost estimate reviewed construction costs, operating costs, disposal costs, transportation costs, and storage costs. The construction cost estimates are based on the preliminary design; because of the absence of any operational experience, the operations costs are more speculative. Total costs of \$3.35/kg UF_6 were based on the highest estimates of 6 scenarios evaluated. These scenarios included the following:

1. Conversion at the Paducah site concurrently with existing DOE material conversion;
2. Conversion at the Portsmouth site concurrently with existing DOE material conversion;

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3. Conversion at the Paducah site after existing DOE material conversion;
4. Conversion at the Portsmouth site after existing DOE material conversion;
5. Conversion at the Paducah site with the addition of another processing line; and
6. Conversion at the Portsmouth site with the addition of another processing line.

Scenarios 2 and 4 resulted in the highest costs.

The conversion cost was based on four elements: (1) pro-rata construction costs, (2) plant operating costs, (3) recapitalization, and (4) a DOE administrative charge.

The construction costs were based on a pro-rata share of the total construction costs at the Paducah and Portsmouth conversion plants based on the UDS baseline design. The pro-rata share is the ratio of the LES conversion demand to the DOE conversion demand. Since the Paducah and Portsmouth plants have different capacities, the construction cost shares differ.

The operations costs were based on UDS information on the estimated cost of operating the conversion plants. These costs include LES' pro rata share of the costs for decommissioning the conversion plants. No credit was taken for the sale of hydrogen fluoride or calcium fluoride that would be the products of the conversion process.

Recapitalization covers replacement of equipment over the 30+ year operating life. The DOE administrative charge is allowed in DOE regulations.

Transportation costs were based on commercial transport from the proposed LES site in Lea County, New Mexico, and to the Envirocare disposal site in Clive, Utah.

Disposal costs were based on estimates obtained from the Envirocare disposal facility.

Storage costs include the costs of storing the depleted uranium cylinders at Paducah or Portsmouth and include the costs for cylinder inspection, surveillance, and maintenance. Because the storage costs are small, \$0.003/kg UF_6, the length of the storage period has no significant effects on the total costs.

The DOE cost estimate is based on the depleted uranium not being subject to Resource Conservation and Recovery Act provisions, as is the case with the current DOE inventory.

At the conclusion of the discussions, LES and DOE staffs agreed to provide the LMI report to NRC staff and to prepare the necessary documents for submittal as proprietary information. NRC staff indicated that, if the report could be provided in a timely manner, it would try to include the information in its Safety Evaluation Report for the LES project.