April 9, 2004

MEMORANDUM TO: Joseph G. Giitter, Chief
Special Projects Branch
Division of Fuel Cycle Safety
And Safeguards

THRU: Brian W. Smith, Chief /RA
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

FROM: Rex G. Wescott /RA/
Senior Fire Protection Engineer
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

SUBJECT: MARCH 18, 2004,CONFERENCE CALL WITH LOUISIANA ENERGY SERVICES REGARDING POTENTIAL FIRE SAFETY CONCERNS ASSOCIATED WITH THE NATIONAL ENRICHMENT FACILITY LICENSE APPLICATION

A telephone conference was held on March 18, 2004, with representatives of Louisiana Energy Services (LES) to obtain information prior to preparing a request for additional information (RAI). The U.S. Nuclear Regulatory Commission (NRC) participants were Timothy Johnson and Rex Wescott. The LES representatives were Scott Tyler, John Crowler, Rod Krich, and Michael Kennedy. A summary of the conference call is attached.

Docket No: 70-3103

Attachment: Conference Call Summary

cc: W. Szymanski/DOE C. Claiborne/Jal D. Holmberg/Lea County W. Floyd/NM
R. Krich/Exelon M. Newman/Hobbs J. Brown/Eunice R. Ratliff/Texas
J. Curtiss/W&S T. Harris/Lovington M. Marriotte/NIRS J. Clift/ Hartsville
P. Miner/USEC B. Richman/Tatum CO'Claire/Ohio L. Chaney/CNIC
J. Ferland/LES G. Hackler/Andrews Derrith Watchman-Moore/NM

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DATE	4/06 /04		4/06 /04		4/08 /04		4/09 /04	

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LES Conference Call Summary (March 18, 2004)

Topics addressed in this call where:

(1) Building construction classification;
(2) On-site fire brigade;
(3) Fomblin oil;
(4) Cold traps;
(5) Process solvents;
(6) Control room fire protection;
(7) Chemical and environmental laboratory explosions;
(8) Various components of items relied on for safety (IROFS) 36; and
(9) Protection of fire barriers.

Building construction classification. In the LES application, safety related buildings are classified in accordance with the New Mexico Building Code. National Fire Protection Association (NFPA) 801 referenced in the Standard Review Plan (SRP) suggests that buildings containing radioactive processes meet the requirements of buildings classified in NFPA 220. The applicant stated that the requested information had been developed and will be provided to NRC.

On-site fire brigade. The facility will be protected, in part, by an on-site fire brigade organized and trained in accordance with NFPA 600. According to LES, this fire brigade will be qualified for incipient fire fighting and will rely on 1.5 inch hoses connected to stand pipes and portable fire extinguishers. It will not use mobile apparatus or large diameter hose. It will be augmented by assistance from nearby fire departments. LES stated that a baseline needs assessment will be prepared to further specify facility fire protection needs.

Fomblin oil. Fomblin oil is used for lubrication of pumps in the UF_6 process system. It is a highly fluorinated oil which will not react with UF_6. According to the applicant, this oil is known in Europe as Tyreno and is classified as non-combustible and non-flammable with no listed flashpoint or firepoint.

Cold traps. The staff was concerned that some gases dissolved in the UF_6 might be explosive when condensed in the cold traps. LES stated that light and intermediate gases will be listed in the RAI response. However, the applicant stated that the gases are neither combustible nor explosive.

Process solvents. The staff was concerned that use of process solvents could cause the collection of explosive or combustible gases in the cold traps and/or present a fire hazard where stored. The applicant stated that no solvents will be used in the process.

Attachment

Control room fire protection. The staff was concerned that a fire in the control room could lead to release of UF_6 due to lack of process control. The applicant stated that the control room is protected by automatic detection and portable fire extinguishers. The applicant also stated that no fire sequences in the control room were found to result in chemical or radioactive releases, including spurious actuations.

Chemical and environmental laboratory explosions. Hydrogen is used in both the chemical and the environmental laboratories. In the environmental laboratory, hydrogen is contained in a small tank within the laboratory. In the chemical laboratory, hydrogen is delivered from a tank outside the laboratory. The applicant stated that neither laboratory contains enough material to exceed the 10 CFR 70.61(c) threshold consequences in the event of an explosion.

Various components of IROFS36. IROFS36 is a collection of eleven fire protection administrative controls that are used in 17 fire related event sequences. For some sequences, it appears that more than one IROFS36 controls may be required. The applicant stated that to clarify the accident analysis, the components of IROFS36 will be clearly identified in each accident sequence. In addition, factors such as margin and management measures, including periodic surveillances, will be factored into the IROFS.

Protection of fire barriers. The staff was concerned about protection of fire barriers (IROFS35) which are credited with protecting areas containing radioactive material from fires propagating in from other areas. Although combustible loading controls and other measures are often employed in the area to be protected, they are not mentioned on the originating side for a propagating fire scenario. The applicant stated that factors such as safety margin, combustible loading controls, and other measures to protect the fire barriers will be considered under the configuration design control program which will be listed as an IROFS.

The information obtained from the telephone conversation was used to help develop the RAIs for fire protection. RAI questions related to all of the above concerns except process solvent were developed. The process solvent concern is, in part, redundant to the cold trap concern and an RAI question specific to process solvents is no longer needed. The information obtained in the applicant's response to the RAIs will be used in the development of the staff Safety Evaluation Report.