

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 13, 1999

**TO:** G.W. Cunningham, Technical Director  
**FROM:** Paul F. Gubanc and David T. Moyle, Oak Ridge Site Representatives  
**SUBJ:** Activity Report for Week Ending August 13, 1999

Staff members Blackman, Helfrich, and Thompson were at Y-12 this week to review design and construction matters associated with the new Y-12 HEU Storage Facility and HF Supply System.

A. HF Supply System (HFSS): As discussed last week, LMES recently published its own independent assessment of the HFSS, and a preliminary list of corrective actions. These documents, as well as HFSS design details, were reviewed by the staff this week. Key highlights include:

1. LMES has announced that operation of the HFSS will be delayed until the end of the year (including LMES and DOE ORRs in November and December, respectively).
2. LMES concludes that the design of the HFSS is fundamentally sound although several features of the HFSS were not prototyped to verify their adequacy (e.g., preheaters, off-gas filters, process controls). While the HFSS testing program has revealed performance issues with the preheaters which LMES is working to understand, operational adequacy of the filters and especially the process controls will not be demonstrated until uranium is actually introduced into the HFSS. LMES is currently drafting a startup plan for this phase of the project.
3. The Y-12 Plant and project-specific plans and procedures used for the HFSS were adequate although LMES Procurement, Engineering and Quality organizations each displayed significant instances of non-adherence; especially in the areas of formality, issue closure and rigorous change control. Until this year, Operations abdicated their responsibility through non-involvement.
4. The recently created LMES Operations Assurance and Compliance office has been assigned responsibility to develop the plant-level corrective action plan over the next several weeks. The staff urged LMES to include a section on what they needed from DOE (e.g., strong technical interface) to be successful in correcting the identified problems.
5. DOE-OR stated that its project management staff has gradually, over many years, shifted away from significant technical involvement on managing construction projects though their position descriptions and procedures all assign DOE this responsibility. DOE-OR is committed to conducting an independent review of DOE's role vis-a-vis the HFSS and then extending the look to its other projects. We believe this review will reveal fundamental policy questions regarding the role and corresponding capabilities of DOE-OR in project management. (I-A, II-B)

B. Reduction Process at Y-12 Enriched Uranium Operations (EUO): The LMES Readiness Assessment (RA) for reduction is scheduled for the week of August 23 concurrent with a DOE line management readiness verification; **not** an independent DOE RA. DOE has issued Safety Evaluation Reports approving the Enriched Uranium Operations (EUO) BIO and OSR, with the exception of all sections associated with the HFSS. Consequently, LMES still does not have an approved list of safety SSCs associated with the HFSS. (II-B.2)

C. Y-12 Integrated Safety Management (ISM): Starting Monday, LMES will commence a two week independent assessment of ISM implementation at Y-12 with particular emphasis on the non-nuclear facilities and previously identified weaknesses. This will serve as their primary basis for satisfying the annual contractor ISM assessment requirement of the DEAR clause. (I-A.2)

cc: Board Members