RAS 13232

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Lawrence G. McDade, Chairman
Peter S. Lam
Richard E. Wardwell

In the Matter of	)	March 5, 2007
USEC Inc. (American Centrifuge Plant)	)	Docket No. 70-7004
	)	ASLBP No. 05-838-01-ML

INFORMATION PROVIDED BY USEC, INC. TO SUPPLEMENT NRC STAFF RESPONSE TO ATOMIC SAFETY AND LICENSING BOARD ORDER OF FEBRUARY 6, 2007 – QUESTION S2-1

I. Introduction

In its February 6, 2007 Order, the Atomic Safety and Licensing Board propounded certain questions to the NRC Staff. Among those questions was Question S2-1, which sought information regarding the sufficiency of information in USEC's license application for the American Centrifuge Project (ACP) and the adequacy of the Staff's review of the Integrated Safety Analysis (ISA) Summary prepared by USEC for that project.[1]

The NRC Staff submitted its responses to the Board's questions, including its response to Question S2-1, on February 20, 2007. Subsequently, four individual NRC Staff members

[1] In its February 6, 2007 Order, the Board directed that the Staff submit its answers by February 20, 2007 (NRC Staff) and that USEC provide any supplemental answers by February 26, 2007 (USEC), but that all answers should be provided no later than March 5, 2007. See February 6, 2007 Order at 2. USEC is providing this supplement on only one of the questions raised by the Board, which was the subject of a filing on February 26, 2007 by four individual Staff members.

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submitted supplemental information in response to that question on February 26, 2007. In their submittal, the four individuals argue that the design of the ACP is not sufficiently complete and therefore there can be no reasonable assurance that all credible accident sequences and Items Relied Upon for Safety (IROFS) have been identified as required by 10 CFR Part 70. Further, these Staff members assert that the applicant and the NRC Staff review relied on "programmatic" commitments to substitute for an adequate design.

In fact, as discussed below, USEC's License Application and ISA Summary are sufficiently complete to comply with the requirements of 10 CFR Part 70 and to permit adequate Staff review. The information regarding the ACP provided by USEC in those documents includes not only information on items traditionally viewed as "programmatic" (such as the Quality Assurance program, configuration management program, corrective action program, etc.), but also significant and detailed information on the design of plant facilities and equipment (including IROFS), the significant design features of that equipment, and how that equipment will function.

Although information about programs to be implemented during the design, construction and operation of the ACP is important in order to evaluate facility safety, USEC did **not** rely on "programmatic" information as a substitute for the technical or design information about facilities and equipment required by 10 CFR Part 70. The License Application and ISA Summary provide substantial information, in sufficient detail to permit a clear understanding of the facility, equipment, potential accident sequences and IROFS.

II. USEC's Design and ISA Summary Are Sufficiently Complete to Permit Staff Review and Licensing of the ACP

The NRC's processes for licensing uranium enrichment facilities are not premised on any requirement that the design of a facility be complete and final before a license is granted.

Instead, the Staff reviews the design features, physical parameters, administrative controls, and licensee programs to ensure that they have been described at a level of detail sufficient to conclude that, if facility design and construction is completed in conformance with the information reviewed, there is reasonable assurance that the facility will meet the applicable safety, environmental and security regulatory requirements. In particular, for facilities licensed under 10 CFR Part 70, Subpart H, the design must be completed to the point necessary to identify and describe credible accident sequences and identify and describe the IROFS relied upon to address those sequences.

The nature of this process is apparent in the regulations. For example, 10 CFR 70.65, "Additional Contents of Applications," defines the information that a license applicant must submit in an ISA Summary as follows:

> (1) A general description of the site with emphasis on those factors that could affect safety (*i.e.*, meteorology, seismology);
>
> (2) A general description of the facility with emphasis on those areas that could affect safety, including an identification of the controlled area boundaries;
>
> (3) A description of each process (defined as a single reasonably simple integrated unit operation within an overall production line) analyzed in the integrated safety analysis in sufficient detail to understand the theory of operation; and for each process, the hazards that were identified in the integrated safety analysis pursuant to §70.62(c)(1)(i)-(iii) and a general description of the types of accident sequences;
>
> (4) Information that demonstrates the licensee's compliance with the of the management measures; the requirements for criticality performance requirements of §70.61, including a description monitoring and alarms in §70.24; and, if applicable, the requirements of §70.64;
>
> (5) A description of the team, qualifications, and the methods used to perform the integrated safety analysis;

(6) A list briefly describing each item relied upon for safety [IROFS] which is identified pursuant to §70.61(e) in sufficient detail to understand their functions in relation to the performance requirements of §70.61;

(7) A description of the proposed quantitative standards used to assess the consequences to an individual from acute chemical exposure to licensed material or chemicals produced from licensed materials which are on-site, or expected to be on-site as described in §70.61(b)(4) and (c)(4);

(8) A descriptive list that identifies all items relied on for safety that are the sole item preventing or mitigating an accident sequence that exceeds the performance requirements or §70.61; and

(9) A description of the definitions of unlikely, highly unlikely, and credible as used in the evaluations in the integrated safety analysis.

10 CFR 70.65(b) (emphasis added). The Staff uses this ISA Summary as the primary basis for determining whether the applicant has complied with 10 CFR 70.61-70.65.

In sum, the regulations explicitly require general descriptions of processes, equipment and design parameters sufficient so that their functions and theory of operations can be understood. The Staff then makes a determination whether a facility so described complies with the applicable regulations in Part 70, including 10 CFR 70.61 and 70.62. It is then the responsibility of the licensee to complete the details of the design and build the facility in compliance with these descriptions, which the Staff confirms through its inspection processes. See 10 CFR 40.41(g) and 70.32(k), which provide that operation of a uranium enrichment facility may commence only after operational readiness review inspections in which the NRC "verifies through inspection that the facility has been constructed in accordance with the requirements of the license." These NRC inspections occur throughout the period of design completion and construction, and confirm that the commitments included in the license application and ISA Summary have been met.

The licensee must also maintain the ISA Summary with periodic updates as required by 10 CFR 70.72 (including an annual update to the NRC Staff), and may change the facility and the ISA Summary only if the criteria of that regulation are met. In addition, USEC has committed to provide an updated ISA Summary to the NRC Staff 180 days prior to operation of the ACP. See ACP License Application §3.1.2. If the licensee is not permitted to make a proposed change under the criteria of 10 CFR 70.72, an amendment to the license must be sought and approved by the NRC.

Note that nowhere in 10 CFR Part 70, including Subpart H, is it required that the design be complete or final prior to preparation of the ISA or the ISA Summary, or the NRC's review.

USEC agrees that all credible accident sequences for the ACP facility that could exceed the applicable performance requirements must be identified and described, and that all IROFS that will be relied upon to prevent, mitigate, or otherwise address those credible accident sequences must be identified and described. As noted in the Staff SER, the ISA Summary submitted by USEC supplied this information. The ISA Summary contains a list and description of all credible accident sequences and a list and description of all IROFS. Those IROFS were described in sufficient detail so that the Staff could reasonably conclude that if they were installed and implemented as described, they would perform their intended prevention or mitigation functions.

USEC and the Staff did not rely solely or even primarily on "programmatic" features, but specifically identified and described the IROFS and how they would function to prevent or mitigate credible accident sequences. Programmatic features such as the Quality Assurance program, the configuration management program, the corrective action program, and management and personnel qualifications provide assurance that the plant, including IROFS,

will be designed, constructed, and operated as described in the License Application and ISA Summary. However, these "programmatic" features were not relied upon as a substitute for the level of technical and design information required by 10 CFR Part 70, Appendix H. It should be noted that the list of IROFS in the ISA Summary should be read in conjunction with the descriptions of the ACP's equipment and design features to ensure a complete understanding of how the IROFS function.

Because USEC believes that this is an issue that warrants additional clarification for the Board, USEC intends to submit prefiled testimony on these matters (as contemplated in the Board's February 6, 2007 Order, issue HTS-12) by March 12, 2007.

III. Conclusion – USEC's Application and the NRC Staff Review Meet Applicable Regulations and Are Consistent With Past Regulatory Practices.

As demonstrated above, the License Application and ISA Summary submitted by USEC included the information regarding accident sequences and IROFS required by 10 CFR Part 70. Neither USEC nor the NRC Staff relied upon "programmatic" features as a substitute for the required design information. The level and detail of the Staff's review of USEC's Application and the ISA Summary is consistent with the NRC's standard approach to facility licensing, and provides reasonable assurance that the facility will comply with all applicable requirements. USEC will provide a fuller description and explanation of these matters in testimony to be filed by March 12, 2007.

Respectfully Submitted,

Dated March 5, 2007

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William E. Baer, Jr.
Morgan, Lewis & Bockius LLP
Counsel for USEC, Inc.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the "Information Provided by USEC, Inc. to Supplement NRC Staff Response to Atomic Safety and Licensing Board Order of February 6, 2007 – Question S2-1" were served this day upon the persons listed below, by e-mail and first class mail, unless otherwise noted.

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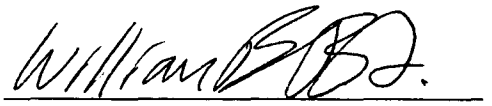

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NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney herewith enters an appearance in the captioned matter. In accordance with 10 CFR § 2.314(b), the following information is provided:

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Respectfully submitted,

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Dated: 5 March 2007

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I hereby certify that copies of the Notice of Appearance of William E. Baer, Jr." were served this day upon the persons listed below, by e-mail and first class mail, unless otherwise noted.

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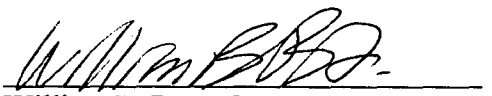

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