

In the Matter of USEC Inc. (American Centrifuge Plant)

Docket No. 70-7004-ML Official Board No. USEC 12

OFFERED by: Applicant/Licensee Intervenor _____

NRC Staff _____ Other _____

IDENTIFIED on 3/13/07 Witness/Panel _____

Action Taken: ADMITTED REJECTED WITHDRAWN

Reporter/Clerk _____

RAS 13430

March 27, 2007 (11:30am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

USEC EXHIBIT 12

Docket No. 70-7004-ML

The table below cross-references the requirements for information to be provided by the licensee in an ISA Summary with the information supplied by USEC in its ISA Summary for the ACP. As can be seen, the ISA Summary supplied by USEC provides all the information required by 10 CFR Part 70, Subpart H.

Requirement / Applicable Guidance (10 CFR Part 70/ NUREG-1520)	Acceptable Documentation (per NUREG 1520)	Applicable Section of USEC ISA Summary
<p>General description of the site:</p> <p>10 CFR 70.65(b)(1),</p> <p>NUREG-1520 § 3.4.3.2(1).</p>	<p>The site description in the ISA Summary focuses on those factors that could affect safety, such as</p> <ul style="list-style-type: none"> ◆ geography ◆ meteorology ◆ seismology ◆ demography ◆ nearby industrial facilities & transportation routes. 	<p>The site description in the ISA Summary provides detailed site information including:</p> <ul style="list-style-type: none"> ◆ geography- § 1.1 ◆ meteorology- § 1.3 ◆ seismology- § 1.6 ◆ demography- § 1.2 ◆ nearby industrial facilities & transportation routes.- § 1.7.
<p>General description of the facility:</p> <p>10 CFR 70.65(b)(2),</p> <p>NUREG-1520 § 3.4.3.2(2).</p>	<p>The facility description in the ISA Summary focuses on features that could affect potential accidents and their consequences, including facility:</p> <ul style="list-style-type: none"> ◆ location ◆ design information ◆ arrangement of buildings. 	<p>The facility description in the ISA Summary provides information regarding features that could affect potential accidents and their consequences, including</p> <ul style="list-style-type: none"> ◆ facility location and arrangement of buildings- § 2.1.1 ◆ design information- §§2.2-2.3.
<p>Description of facility processes, hazards, and types of accident sequences:</p> <p>10 CFR 70.65(b)(3),</p> <p>NUREG-1520 § 3.4.3.2(3).</p>	<p>This description must include a list of the hazards (and interactions of hazards) for each process and the accident sequences that could result from such hazards and for which unmitigated consequences could exceed the performance requirements of 10 CFR 70.61. The process description in the ISA Summary addresses each process that was analyzed as part of the ISA. Specific areas reviewed include</p> <ul style="list-style-type: none"> ◆ basic process function and 	<p>The ISA Summary provides thorough descriptions of facility processes, hazards, and types of accident sequences, including:</p> <ul style="list-style-type: none"> ◆ basic process function and theory- § 3.2 to § 3.5 ◆ functions of major components and their operation - § 3.6 ◆ process design and equipment - § 3.7, § 3.14, ◆ process operating ranges and limits - § 3.6 to § 3.8

TEMPLATE = SECY-028

SECY-02 USEC EXHIBIT 12

Requirement / Applicable Guidance (10 CFR Part 70/ NUREG-1520)	Acceptable Documentation (per NUREG 1520)	Applicable Section of USEC ISA Summary
	<p>theory</p> <ul style="list-style-type: none"> ◆ functions of major components and their operation, ◆ process design and equipment, ◆ process operating ranges and limits. 	<ul style="list-style-type: none"> ◆ hazards (and interactions of hazards) for each process and the accident sequences that could result from such hazards-§ 6; Appendix B, Appendix C
<p>Demonstration of compliance with 10 CFR 70.61 performance requirements:</p> <p>10 CFR 70.65(b)(6),</p> <p>NUREG-1520 § 3.4.3.2(4) and (6).</p>	<p>For each applicable process, this section presents the following information that should be developed in the ISA to demonstrate compliance with the performance criteria of 10 CFR 70.61:</p> <ul style="list-style-type: none"> ◆ postulated consequences and comparison to the consequence levels identified in 10 CFR 70.61 ◆ inventory and release path factors supporting the results of the consequence evaluation ◆ information showing how the applicant established the likelihoods of accident sequences that could exceed the performance requirements of 10 CFR 70.61 ◆ information describing how designated IROFS protect against accident sequences that could exceed the performance requirements of 10 CFR 70.61 ◆ information on management measures applied to the IROFS 	<p>The following ISA Summary sections demonstrate compliance with the performance criteria of 10 CFR 70.61:</p> <ul style="list-style-type: none"> ◆ postulated consequences and comparison to the consequence levels identified in 10 CFR 70.61-Tables 6.1-1 through 6.1-4; Appendix C, Appendix D ◆ inventory and release path factors supporting the results of the consequence evaluation- § 5; Appendix D ◆ information showing how the applicant established the likelihoods of accident sequences that could exceed the performance requirements of 10 CFR 70.61- Appendix E ◆ information describing how designated IROFS protect against accident sequences that could exceed the performance requirements of 10 CFR 70.61- Appendix F ◆ information on management measures applied to the IROFS - § 7.1, Table 7.2-1.
<p>Criticality Monitoring:</p> <p>10 CFR 70.65(b)(4),</p>	<p>Information on how the criticality monitoring requirements of 10 CFR 70.24 are met</p>	<p>Information on how the criticality monitoring requirements of 10 CFR 70.24 are met is contained in §3.10.6 and Figure 3.10.6-1.</p>

Requirement / Applicable Guidance (10 CFR Part 70/ NUREG-1520)	Acceptable Documentation (per NUREG 1520)	Applicable Section of USEC ISA Summary
<p>NUREG-1520 § 3.4.3.2(4c).</p>		
<p>Compliance with baseline design criteria:</p> <p>10 CFR 70.65(b)(4),</p> <p>NUREG-1520 § 3.4.3.2(4D).</p>	<p>Information on how the baseline design criteria of 10 CFR 70.64 are addressed.</p>	<p>◆ The baseline design criteria of 10 CFR 70.64 are addressed in § 2.6, § 6 and § 7.</p>
<p>Description of the ISA team qualifications and ISA methods:</p> <p>10 CFR 70.65(b)(5),</p> <p>NUREG-1520 § 3.4.3.2(5).</p>	<p>This section should discuss the applicant's ISA team qualifications and ISA methods, as described in the ISA Summary.</p>	<p>◆ ISA team qualifications and ISA methods are described in § 4.1-4.4.</p>
<p>Descriptive list of IROFS:</p> <p>10 CFR 70.65(b)(6),</p> <p>NUREG-1520 § 3.4.3.2(6).</p>	<p>This list describes the IROFS for all intermediate- and high-consequence accidents in sufficient detail to understand their safety function(s).</p>	<p>◆ The list of IROFS is provided in § 7.2. Section 7.3 provides a complete and detailed listing of the IROFS sufficient detail to understand their safety functions.</p> <p>◆ Section 4.4.2.2.5 and Tables A-5 through A-9 provide the methodology and consequence levels used for assessing consequences specified in 10 CFR 70.61</p>
<p>Description of acute chemical exposure standards used:</p> <p>10 CFR 70.65(b)(7),</p>	<p>This discussion identifies the applicants quantitative standards for assessing the chemical consequence levels specified in 10 CFR 70.61, as described in the ISA Summary.</p>	<p>Section 4.4.1.3 provides the screening methodology for chemical and standard industrial hazards. Table A-1 in Appendix A provides the Hazardous material/Energy Checklist, and Table A-2 provides</p>

Requirement / Applicable Guidance (10 CFR Part 70/ NUREG-1520)	Acceptable Documentation (per NUREG 1520)	Applicable Section of USEC ISA Summary
NUREG-1520 § 3.4.3.2(7).		the screening criteria used.
Descriptive list of sole IROFS: 10 CFR 70.65(b)(8), NUREG-1520 § 3.4.3.2(8).	This list identifies those IROFS that are the sole item preventing or mitigating an accident for which the consequences could exceed the performance requirements of 10 CFR 70.61.	Section 7.4 identifies those IROFS that are the sole item preventing or mitigating an accident for which the consequences could exceed the performance requirements of 10 CFR 70.61.
Definition of the terms “credible,” “unlikely,” and “highly unlikely”: 10 CFR 70.65(b)(9), NUREG-1520 § 3.4.3.2(9).	The applicant must define the terms “unlikely,” “highly unlikely,” and “credible,” as used in the ISA Summary.	◆ Definitions of the terms “unlikely,” “highly unlikely,” and “credible,” are provided in Section 4.4.2.2.4.1. and Table A-4

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