

RAS 12998

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

DOCKETED 02/06/07

SERVED 02/06/07

Before Administrative Judges:

Lawrence G. McDade, Chairman
Dr. Peter S. Lam
Dr. Richard E. Wardwell

In the Matter of

USEC, Inc.

(American Centrifuge Plant)

Docket No. 70-7004-ML

ASLBP No. 05-838-01-ML

February 6, 2007

ORDER

(Establishing a Modified Case Schedule)
(Issuing Questions and Identifying Hearing Topics)

On February 1, 2007, the Nuclear Regulatory Commission (Commission) issued an Order¹ directing this Board to modify the tentative case schedule which we had established in our Order dated November 17, 2006.²

In the Case Scheduling Order, we anticipated that a subsequent Order would be issued by the Board on or about February 13, 2007, in which we would set out specific hearing topics and related questions, as a preliminary step toward the hearing which would begin on April 10, 2007. Pursuant to that Case Scheduling Order, the NRC Staff would have responded to the Board's Questions on March 12, 2007. The Commission's February 1 Order, however, requires the Board to reconsider the timing of all the steps to be taken leading up the hearing and the issuance of our Initial Decision in this matter.

Accordingly, as part of this Order, we are today issuing preliminary questions and a summary of the hearing topics which the Board has identified to date. Depending on the

¹ CLI-07-05, 65 NRC __ (slip op.) (February 1, 2007) [hereinafter February 1 Order].

² Licensing Board Order (Establishing Tentative Case Schedule) (Nov. 17, 2006) (unpublished) [hereinafter Case Scheduling Order].

answers submitted, these preliminary questions may, or may not, lead to the identification of additional hearing topics. If these questions do lead to additional hearing topics, the Board will identify those additional hearing topics for the parties as soon as practicable, and set a schedule for written submissions.

The NRC Staff should submit to the Board written answers to the questions presented in Part I below, no later than noon EST on Tuesday, February 20, 2007. USEC may then submit supplementation to the Staff's answers no later than noon EST on Monday, February 26, 2007.³ In establishing these deadlines that Board recognizes that, given the amount of work to be done, the time available to the Staff and USEC is limited. However, based on the schedule set out by the Commission's February 1 Order, and the Board's other commitments, we could not allow the parties a longer time period within which to respond to our questions. Accordingly, while we urge the parties to do their best in responding to these questions within the time available, we note that the parties may supplement their initial answers to these questions up until 5:00 P.M. EST on Monday March 5, 2007.

Pursuant to the Commission's February 1 Order, the NRC Staff must submit written direct testimony addressing the hearing topics set out in Part II of this Order on or before March 5, 2007. USEC may then submit supplementation to the Staff's written direct testimony on or before March 12, 2007.⁴ When the direct written testimony is submitted, it shall be accompanied by any exhibits that are referred to in that testimony. The written testimony and

³ Given the compressed schedule under which we will all be working, we direct that the submission by USEC not repeat the Staff's submission. Specifically, no submission by USEC is required. However, if USEC believes that an answer provided by the Staff needs correction, explanation, elaboration, or supplementation, it is encouraged by the Board to do so.

⁴ Again, we direct that USEC's written direct testimony not repeat testimony that was presented by the Staff. Again, no submission of written direct testimony by USEC is required. However, if USEC believes that the testimony submitted by the Staff needs correction, explanation, elaboration, or supplementation, it is encouraged by the Board to do so.

exhibits shall be bound (either spiral bound, enclosed in a three ring binder, or bound via a method that has been approved in advance by the Board). Each exhibit shall be sequentially numbered and bound in with the testimony to which it relates. The filing shall be accompanied by an exhibit list. The written direct testimony shall be subscribed by each witness on the last page of the testimony in accordance with the provisions of 18 U.S.C. § 1746.

**PART I – QUESTIONS UPON WHICH ADDITIONAL HEARING ISSUES
MAY BE DEVELOPED**

A. SAFETY ISSUES

The Commission has directed the Board, in the context of this mandatory hearing, to determine whether USEC's Application⁵ and the record of this proceeding contain sufficient information, and whether the NRC Staff's review of the Application has been adequate to support the findings to be made by the regulations; *i.e.*, whether the record enables the Board to conclude that the Staff had a reasonable basis for its conclusions with regard to its safety review of USEC's Application (69 Fed. Reg. 61,411 (Oct. 18, 2004)). To assist the Board in its review, we direct the Staff to address the following specific matters, as well as provide any other background or supporting material that it believes will assist the Board in making its findings with regard to the Staff's safety review.

G1. Review Process

The NRC Staff has developed generic guidance for reviewing applications for licenses for fuel cycle facilities, including enrichment and fuel fabrication facilities.⁶ In regards to the

⁵ USEC's Application seeks authorization to construct a facility and to possess and use source, byproduct, and special nuclear material in order to enrich natural uranium to a maximum of ten percent uranium-235 (U-235) by the gas centrifuge process. USEC proposes to do this at a facility – denominated the American Centrifuge Plant (ACP) – to be constructed near Piketon, Ohio.

⁶ See NUREG-1520, Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility (2002).

general review procedures, the Board directs the Staff to address the following:

For each review area presented in NUREG-1520:

A. Summarize:

1. Specific cases where the areas of review, acceptance criteria, and review procedures were not followed by the Staff.
2. Rationale for why NUREG-1520 was not followed in each of those cases.
3. Alternative procedures that were used in its review and provide a justification as to why the alternative procedures are equivalent or superior to the those presented in NUREG-1520.

B. For any areas where the Staff used other guidance, provide:

1. A list of the guidance document(s).
2. A list of the topics that were reviewed by the document(s).
3. Notification as to whether the other guidance documents supplemented or replaced the review procedures in NUREG-1520.

S1. General Information

Chapter 1 of the Safety Evaluation Report (SER)⁷ describes the NRC Staff's review of USEC's Application with respect to the facility and process description.⁸ In regards to the general information in Chapter 1:

S1-1. Enrichment Process

A. The Environmental Impact Statement - Final Report (FEIS)⁹ states that USEC's

⁷ NUREG-1851, Safety Evaluation Report for the American Centrifuge Plant in Piketon, Ohio (September 2006).

⁸ See 10 C.F.R. §§ 30.33, 40.32, 70.22, 70.65; NUREG-1520.

⁹ NUREG-1834, Environmental Impact Statement for the Proposed American Centrifuge Plant in Piketon, Ohio - Final Report (April 2006).

Application is for a 3.5 million Separative Work Units (SWU) plant (FEIS at 1-2). The NRC Staff considered a 7 million SWU plant based on USEC's indication of a potential expansion to this capacity (FEIS at 1-3). What is the capacity of the ACP for the purposes of the Board's review of USEC's Application? Discuss any changes to either the SER or FEIS that need to be made to address a proposed expansion to 7 million SWU.

- B. The NRC Staff proposes a license condition, which will require sixty (60) days notice before enrichment exceeds 5% U-235.
 - 1. Explain the purpose behind this license condition.
 - 2. Indicate whether all safety and environmental analyses in the Staff's evaluation of USEC's Application have considered up to 10% enrichment.
 - 3. Verify that no cylinder or containment of EU above 5% U-235 will be stored outside, show where and how EU > 5% will be stored, and indicate how this requirement will be reflected in the license.

S1-2. Exemption Request

In regards to USEC's request for an exemption from the requirement to obtain liability insurance¹⁰ (SER at 1-13):

- A. Discuss USEC's need for such an exemption, including the authority of DOE to exempt lessees from having liability insurance.
- B. Provide the NRC Staff's interpretation of DOE's definition of "commercially available" liability insurance (SER at 1-13), the authority for this definition, and the historic precedent for such a reservation at other enrichment facilities.
- C. Discuss how DOE's indemnification of USEC relates to claims against it and the

¹⁰ 10 C.F.R. §§ 40.31(l), 70.22(n).

United States Enrichment Corporation, and summarize what was done for liability insurance during the construction and operation of the lead cascade.

S1-3. Additional Questions:

- A. What is the likelihood of a tornado hitting the cylinder storage yards (SER § 1.3.3.3.2)?
- B. How were the soils with 28% to 43% fines classified as a clay or silt? Clarify why the X-3346 Customer Service Building has a different Design Basis Earthquake than the rest of the ACP facility (SER at 1-30).

S2. Integrated Safety Analysis (ISA) and ISA Summary

Chapter 3 of the SER describes the NRC Staff's review of the ISA and ISA Summary.¹¹

In regards to the ISA information contained in Chapter 3, please address the following:

S2-1. Sufficiency of Review Information

To help determine the sufficiency of the information in USEC's Application and the adequacy of the NRC Staff's review relating to the ISA, the Board directs the Staff to explain their evaluation of USEC's ISA as follows (providing examples for the ACP where relevant and appropriate):

- A. Discuss the level of design details needed to assess USEC's ISA as documented in the internal memorandum and position statement of August 4, 2006,¹² and Staff memoranda of September 13 and October 19, 2006.¹³ This

¹¹ See 10 C.F.R. Part 70, Subpart H, and specifically, 10 C.F.R. §§ 70.61, 70.62, 70.64, 70.65 (addressing appropriate hazards and baseline design criteria (BDC); designated acceptable Items Relied On For Safety (IROFS); performance requirements with the IROFS; and programmatic commitments to maintain the ISA and ISA Summary).

¹² Memorandum to Fuel Cycle Safety and Safeguards Staff from Robert C. Pierson, Office of Nuclear Material Safety and Safeguards (NMSS) (Aug. 4, 2006).

¹³ Memorandum to Joseph Giitter, NMSS, from Christopher S. Tripp & Frederick H. (continued...)

discussion should highlight:

1. The applicable sections of 10 C.F.R. Part 70.
 2. Differences in the two positions established by the referenced memos, emphasizing the design requirements for hazard identification and description, accident sequence, IROFS, and management needed to meet the reasonable assurance standard.
 3. The degree to which the position expressed in the August 4, 2006 memorandum would require a rule change.
 4. The relationship between the Staff's position on the required level of design detail and the guidance provided in NUREG-1520.
 5. The rationale for not requiring design details beyond programmatic commitments for this license review.
 6. Options to assure that final design details and/or design changes are consistent with the programmatic commitments, and that the IROFS have been incorporated into the ACP facility.
- B. Verify and explain why the most critical criticality accident is associated with product withdrawal and cylinder storage of EUF_6 at 10% enrichment.
- C. Describe the step-by-step process in the development of ISA with respect to the flow chart shown on SER Figure 3-1 (SER at 3-9 to 3-12). Illustrate the ISA process by following through the steps using the most critical of the accident sequences listed in the SER (see SER at A-18) (i.e., criticality in EUF_6 cylinders during storage). Illustrate the IROFS in the accident sequence and controls

¹³(...continued)

Burrows, NMSS (Sept. 13, 2006); Memorandum to Jack R. Strosnider, Jr., NMSS, from Christopher S. Tripp & Frederick H. Burrows, NMSS (Oct. 19, 2006).

relied on to meet the double contingency principle.

- D. Explain how the ISA Summary was prepared.
- E. Demonstrate how the hazard evaluation methods (i.e. Preliminary Hazard Analysis and What if/Checklist) were derived from the use of Figure A.1 of NUREG-1513, Integrated Safety Analysis Guidance Document (see SER § 3.3.2.1). Discuss whether decommissioning was considered as an activity in the hazard identification and evaluation process, and, if so, show how it was incorporated, and, if not, explain the reasons for not including it in the evaluation.
- F. Explain how USEC's ISA commitments will be incorporated into its license and how the commitments will be tracked during construction, operation, and decommissioning.

S2-2. Implementation of Baseline Design Criteria (BDC), and Defense-in-Depth

10 C.F.R. § 70.64(a) requires each new facility or new process to address ten baseline design criterion. In regards to the NRC Staff's review of USEC's submittal:

- A. Clarify, using one or more processes as an example, how each of the BDC were addressed in the design of the selected process.
- B. Discuss the relationship between defense-in-depth and IROFS. Do this by showing several component design example items that are considered defense-in-depth but not IROFS; ones considered IROFS but not defense-in-depth; and ones that are considered both. Clarify how adherence to the double contingency principle relates to both of these two controls.

S3. Radiation Protection (RP)

Chapter 4 of the SER describes the NRC Staff's review of information relating to USEC's RP program.¹⁴ In regards to the Staff's review of USEC's RP program, please address the following:

- A. Discuss how USEC's ISA commitments to an As Low as Reasonably Achievable (ALARA) program will be incorporated into its license and how the Staff plans to manage and track implementation of these commitments during construction, operation, and decommissioning.
- B. USEC has requested two exemptions pursuant to 10 C.F.R. Part 20 relating to its RP program: (1) exemption from posting and labeling each container of licensed material required by 10 C.F.R. § 20.1904; and (2) exemption from the requirements of 10 C.F.R. § 20.1601(a) that each high radiation area be controlled with devices to reduce exposures. Please address the following:
 1. Labeling Exemptions (SER at 1-11, 4-15):
 - (a) Expand upon the discussion of the two labeling exemptions requested (i.e., one for labeling cylinders being transported inside the Portsmouth Gaseous Diffusion Plant (PORTS) boundary and one for labeling containers located in the Restricted Areas within the ACP). In this discussion, highlight:
 - (i) types and numbers of containers that will be in use during normal operations;
 - (ii) locations of the Restricted Areas and PORTS boundary;

¹⁴ See 10 C.F.R. Part 20, NUREG-1520 (addressing occupational RP measures).

(iii) frequency of movement and number of cylinders to be moved;

(iv) the definition of when a cylinder is “attended”;

(v) why labeling the large number of cylinders would desensitize workers.

(b) Detail the survey to be performed when containers are removed from contaminated or potentially contaminated areas and how this survey will prevent the spread of contamination.

(c) Summarize any other considerations by the Staff in finding that USEC’s request meets the exemption standards in 10 C.F.R. §§ 40.14 and 70.17.

2. Alternative Methods for Controlling Access to High Radiation Areas (HRA) (SER at 1-12, 4-15):

(a) Elaborate on USEC’s need to request approval for alternative methods for controlling access to high radiation areas, including the burden with meeting the current regulation, the advantage of USEC’s proposed method, and the details of the physical and administrative controls proposed by USEC to prevent inadvertent or unauthorized access to HRAs and very HRAs.

(b) The Staff’s justification for approving alternatives to 10 C.F.R. § 20.1601(a) lies, in part, on the fact that HRA are controlled by Radiation Work Permits (RWP). Explain how the RWP procedure works with selected examples, and comment on those cases, if any, that the requirement for a RWP could be waived, what procedures would need to

be followed to activate a waiver of these requirements, and who could authorize such a waiver and under what circumstances.

S4. Nuclear Criticality Safety (NCS)

Chapter 5 of the SER describes the NRC Staff's review of USEC's NCS program.¹⁵

Please address the following:

- A. In regards to criticality monitoring when enriching up to 10% U-235, discuss, in detail:
 1. Enrichment processes:
 - (a) Potential process steps and areas where criticality could become an issue under normal and accident conditions as identified by the Nuclear Criticality Safety Evaluation (NCSE).
 - (b) Clarify how many stages of centrifuges will make up a cascade; how many cascades will be installed in each process building and whether they will be placed in one large area or whether the building will be divided into rooms for various centrifuge cascades; and, what is the potential for criticality at any given portion of the operational process.
 - (c) Clarify that all criticality analyses and monitoring evaluations were performed assuming 10% enrichment, or, for each situation that they were not, demonstrate that lower enrichment levels are equal to or more critical than 10% enrichment.
 2. Cylinder storage and the Criticality Accidents Alarm System (CAAS) exemption (SER § 5.3.6):

¹⁵ See 10 C.F.R. §§ 70.22, 70.24, 70.52, 70.61, 70.62, 70.64, 70.65, 70.72; NUREG-1520 (addressing adequacy of applicant's program to support safe design, construction and operation of the ACP facility).

- (a) The difference between the exceptions derived from NCSE with the exemptions requested by USEC for only one of the other areas designated by NCSE (i.e. UF₆ cylinder yards).
- (b) Demonstrate that the exemption criteria in 10 C.F.R. § 70.17 is applicable for the UF₆ cylinder yards and discuss how the CAAS program would assure that any near criticality could be detected and adverted at the other identified areas.
- (c) Explain how cylinders with depleted uranium (DU) will be stored on site, giving the approximate maximum storage capacity at each location, length of anticipated storage time at each location, and ultimate disposition of the DU.
- (d) Show where cylinders containing uranium enriched to 5 percent or less weight U-235 will be stored on site, giving the approximate maximum storage capacity at each location, length of anticipated storage time at each location, and ultimate disposition of the enriched product.
- (e) Show where cylinders containing uranium enriched between 5 and 10 percent weight U-235 will be stored on site, giving the approximate maximum storage capacity at each location, length of anticipated storage time at each location, and ultimate disposition of the enriched product.
- (f) In regards to the CAAS exemption:
 - (i) Describe in greater detail how the integrity of the cylinders and vehicle handling practices make the occurrence of a large cylinder breach very unlikely, and demonstrate how the response time will ensure that the cylinders will not accumulate sufficient moderator to make criticality possible with 10% enrichment (SER at 5-27);

- (ii) Demonstrate in greater detail how the Staff's independent analysis yields the results shown herein (SER at 5-28);
- (iii) Explain how USEC's commitment to store cylinders with more than 5% enrichment indoors and with CAAS coverage is to be documented in the license (SER at 5-29).

B. In addition, please address the following:

1. The first paragraph of SER page 5-6 states that walk-throughs will be performed annually, while the second paragraph discusses monthly walk-throughs. Conversely, the NUREG-1520 acceptance criteria states that walk-throughs should be performed at least every two weeks. Which of the above is the proposed schedule for the ACP? Clarify the Staff's justification for accepting USEC's reduced walk-through schedule.
2. Clarify why the acceptance criteria in NUREG-1520, Section 5.4.3.4.6(3) is unnecessary, and why there is no need for the specific requirements to use certain methodologies and practices as discussed in the acceptance criteria (SER at 5-30).

S5. Chemical Process Safety

Chapter 6 of the SER describes the NRC Staff's review of information in USEC's Application related to chemical process safety.¹⁶ Please address the following:

- A. Part of the Staff's responsibility is to oversee chemical safety issues of licensed materials related to the risks to workers, public, and the environment; In this regard, summarize the chemicals that will likely be used or formed during the

¹⁶ See 10 C.F.R. §§ 70.61, 70.62, 70.64; NUREG-1520 (addressing chemical process safety).

enrichment process at the ACP and which chemicals are related to the storage, handling, and processing of licensed materials.

- B. Compare potential ACP-related chemicals to those chemical impacts currently detected in the soils, surface water, sediments, and groundwater in the areas downgradient of the ACP processes at the site so as to ascertain if the chemical safety related evaluations for ACP will be successful in discriminating past actions from plant performance, including unmitigated accident sequences.
- C. Discuss USEC's Corrective Action Program (SER at 6-13), and how it will address any unacceptable performance deficiency discussed as part of Staff's review in NUREG-1520 (NUREG-1520 at 6-3).
- D. Verify that the reference to Appendix F on SER page 6-15 relates to USEC's ISA Summary and not Appendix F of the SER. Summarize the unmitigated risk of sequences that could exceed the performance sequence of 10 C.F.R. Part 70, Subpart H, and discuss the Staff's review of the selected consequence accident scenarios, focusing on its confirmation that the chemical events that could exceed the performance requirements of 10 C.F.R. Part 70 were addressed.

S6. Fire Safety

Chapter 7 of the SER describes the NRC Staff's review of information in the application related to fire safety.¹⁷

- A. The Staff states that USEC will use most of the applicable codes presented in Table 7-1 will be used by USEC "except as justified through documentation" (SER at 7-2 to 7-4). What is the criteria for authorizing any departure from the

¹⁷ See 10 C.F.R. §§ 70.61, 70.62, 70.64; NUREG-1520 (addressing facility protection against fires and explosions that could lead to an increased radiological risk).

established code, who reviews this justification, and who has the responsibility and authority to approve any such justification?

- B. Provide some examples of cases where the code standard would not be used, the documentation that would be provided to support the deviation from the standard, and the approval process that would be followed in such cases.

S7. Environmental Monitoring

Chapter 9 of the SER documents the NRC Staff's review of USEC's environmental monitoring protection plan.¹⁸ To help the Board evaluate the thoroughness of the Staff's review, please address the following:

- A. Chapter 9 of the SER states that the acceptance criteria relating to the Staff's review of USEC's Environmental Report (ER) is not applicable since the Staff has prepared an FEIS (SER at 9-2). However, the review criteria in NUREG-1520, Chapter 9, states that the Staff will determine whether an applicant has submitted an ER that is adequate to prepare either an Environmental Assessment/Finding of No Significant Impact or an EIS. Given that the FEIS submitted by the Staff is required to be its independent assessment of the environmental impact, discuss the adequacy of USEC's ER in relationship to the acceptance criteria in NUREG-1520 § 9.4.3.1.1, or reference where an assessment of the adequacy has been done in the SER or in the FEIS.
- B. Illustrate how machine cooling water systems work; show how this system assures there will be no water contaminated by uranium; and, discuss the anticipated success with achieving this result as compared to core cooling in a Pressurized Water Reactor (SER at 9-5).

¹⁸ See 10 C.F.R. Parts 20 and 51; 10 C.F.R. §§ 30.33, 40.31(k), 40.32(e), 70.22(a)(7), 70.59, and 70.65(b).

S8. Decommissioning

Chapter 10 of the SER addresses the NRC Staff's review of USEC's decommissioning plan. The Board has the following questions relating to the Staff's review of whether the site can be decommissioned safely and in accordance with NRC requirements.

- A. Define what "promptly" means in regards to decontaminating and removing materials after cessation of operations (SER § 10.3.1.1).
- B. Show where and how decontamination will take place at the ACP; illustrate which parts of the plant will be considered contamination zones; describe the specific good housekeeping practices that are required to maintain the areas outside of the contamination zones of the facility containment free; and, discuss how the Staff will assure that practices are implemented and performed (SER § 10.3.1.2).
- C. Describe the facilities, procedures, and expected results of decontamination of the ACP that the Staff reviewed in determining the adequacy of the proposed plan (SER § 10.3.1.8).

B. ENVIRONMENTAL ISSUES

With respect to issues relating to the NRC's obligations under the National Environmental Policy Act (NEPA), the Board has been directed by the Commission to determine "whether the review conducted by the NRC Staff pursuant to 10 C.F.R. Part 51 has been adequate."¹⁹ In addition, the Commission directed the Board to make an independent determination regarding three "baseline NEPA issues." To assist the Board in making the required determinations, the Staff shall address the following issues, as well as provide any other background or supporting material that it believes will assist the Board in making its findings with regard to environmental/NEPA matters.

¹⁹ 69 Fed. Reg. at 61,411.

- E1.** The Board must independently consider the final balance among conflicting factors in the record and to determine whether the license should be issued, denied, or conditioned to protect environmental values. Based on the record to date, list all the conflicting factors that the NRC Staff believes should be balanced with regard to determining the appropriate action to be taken and provide detailed justification (with specific references to the record) to the Board for reaching a positive finding on the license decision.
- E2.** In regards to the accident analysis in FEIS Appendix H (withheld pursuant to 10 C.F.R. § 2.390), verify that this is the same analysis presented in Appendix B of the SER and:
- A. Provide a discussion of the accident analysis which presents as the most severe accident with regard to the public health and safety.
 - B. Describe the emergency plan outlining mitigating actions that could be taken to reduce the consequences of that accident, presenting an example of actions that could take place in the area affected by the accident.
 - C. Provide the Board with information regarding what other mitigating actions are potentially available to reduce the consequences of that type of accident.
- E3.** In regards to determining the extent of the NRC Staff's review relating to FEIS Chapter 3 (Affected Environment), Chapter 4 (Environmental Impacts), and Chapter 6 (Environmental Measurement and Monitoring Programs), clarify the Staff's understanding of the proposed monitoring program as it relates to existing and future impacts and the relationship between DOE and ACP monitoring by addressing the following:
- A. FEIS at 4-24 to 4-25:
 - 1. While the proposed groundwater extraction is projected to be only 31% of

the design capacity and permitted rate of the well field groundwater withdrawal system, has the well field ever been pumped at its permitted rate to verify its capacity?

2. Summarize the Staff's evaluation of the design features that address potential groundwater impacts from breached cylinders of DU in the storage yards.
3. What is the percentage increase over the maximum historic withdrawal rate from each of the two well fields (FEIS at 8-4)?

B. FEIS at 6-6:

1. Verify that the underground liquid storage tanks that collect leaks and spills of treated water are the only underground facilities at ACP, exclusive of the associated drains and interconnecting piping.
2. Clarify what is meant by "routine" monitoring and "tracking the levels" for these tanks.
3. Discuss the effectiveness of level gauges in detecting small leaks and weeps from the drain tanks.
4. Is there any potential for leakage from pipelines, valves, or other similar facilities to bypass the Liquid Effluent Control System, seep into the ground, and impact groundwater at the site? If so, how will this inadvertent release be monitored and remediated? (FEIS at 4-23).
5. Explain how the impacts from any ACP releases to surface water as measured by the outfalls will be separated out from the impacts from other activities at Portsmouth.
6. How will the monitoring commitments listed in the last paragraph of FEIS section 6.1.3 be documented in the license?

- E4.** In regards to the impact from the ACP operations (FEIS § 4.2.12.3):
- A. For routine radiological impacts, what is the basis for the NRC Staff's conclusion that 10% enrichment would be infrequent? Summarize the assessments (discussed in FEIS at 4-62 to 4-65) that were performed for 10% enrichment. If none were performed, what control does the NRC have to limit the amount of 10% enrichment so that it would not be the controlling enrichment level for airborne releases?
 - B. Is the X-710 Laboratory Facility part of the ACP, and where is it located on Figure 2-4 (FEIS at 2-8)? The discussion in the FEIS at page 4-64 seems to imply that the reported air emissions include all the facilities at Piketon. Is this correct, and if not, why?
 - C. Relating to impacts from plausible accidents (FEIS at 4-71):
 - 1. What design features are proposed to prevent a "domino" effect associated with multiple centrifuge failures initiated by the structural failure of one cylinder?
 - 2. Is there any redundancy in the high temperature and high pressure trips to protect the centrifuges from over-pressurization breaches?
 - 3. Clarify the potential for nuclear criticality that has been evaluated for the 10% enrichment.
- E5.** Options to mitigate adverse environmental impacts for the proposed action presented in FEIS Chapter 5 raise the following concerns:
- A. Explain how the mitigative measures proposed in Tables 5-1, 5-2, and 5-3 (FEIS at 5-2 to 5-4) will be incorporated into the license and how they will be implemented, monitored and evaluated during construction and operations.

- B. Explain in more detail the proposed visual inspections of the cylinder storage yards in regards to their potential impact on geology and soils (FEIS Table 5-2).
- E6.** The Board has the following questions on the cost benefit analysis in Chapter 7:
- A. Elaborate on the basis for generating the cost benefit figures presented in Table 7-1 (FEIS at 7-2) and Table 7-2 (FEIS at 7-5).
 - B. What assurances are there that the enriched uranium will be available for domestic use and not diverted to foreign markets (FEIS at 7-4)?
 - C. Now that the Louisiana Enrichment Facility (LES) is licensed and under construction, explain what effect it will have on the no-action alternative for the ACP (FEIS at 7-6 to 7-10).
- E7.** In addition to the environmental issues above, please address the following:
- A. Based on current thinking, outline and discuss the components and processes envisioned for inspecting and monitoring the cylinders in the storage yards (FEIS at 2-30).
 - B. Is the socioeconomic impact shown on Table 2-7 a positive impact rather than a negative impact? If so, is the greater impact for Paducah an advantage of the site over Piketon? (FEIS at 2-40).
 - C. How does DOE's deconversion plant at Portsmouth manage and handle hydrofluoric acid, and why is this considered an extra burden if deconversion is performed at a fuel fabrication facility (FEIS at 2-48 to 2-49)?
 - D. Clarify the following (see Table 2-8 (FEIS at 2-49):
 - 1. Why is the potential for additional domestic enrichment facilities being constructed in the future included in the no-action alternative?

2. How can the “additional domestic enrichment facilities” for the no-action alternative have more impact than the ACP plant for Public and Occupational Health and for Waste Management (FEIS at 2-60 to 2-61)?
- E. The FEIS states on page 3-6 that ground subsidence impacts from pumping from the well locations are considered in Section 4.2.6. However, Section 4.2.6 only has a conclusory statement that the Ohio EPA confirmed that subsidence and sinkholes from groundwater withdrawal are not an issue in the region (FEIS at 4-24). To clarify this in relationship to any potential historic feature (such as the possible Great Hopewell Road (see FEIS at B-229)) discuss the following:
1. What are the depths of the well screens and what geologic material are these wells developed in?
 2. What is the average annual and maximum pumping rates that have actually occurred in the well field since these wells were installed?
 3. How much could this pumping rate increase with the operation of the ACP and what is the estimated increased drawdown, if any, with the proposed pumping rate?
 4. What is the estimated compressibility of the geologic strata due to increased effective stress from changes in groundwater drawdown?
 5. What are the estimates of differential settlement at the ground surface from any increase drawdown, and how will it affect the appearance of surface features in the vicinity of the well field?
- F. Provide maps showing the following (FEIS at 3-9):
1. The location of the following features in relationship to the ACP
 - (a) Scioto Township Works
 - (b) Piketon Mounds

(c) Van Meter Stone House and Outbuildings

(d) Prehistoric lithic scatter

(e) Thirteen historic farmsteads

(f) Barnes House

(g) Bailey Chapel

2. The historic features at each of the sites list above. Do any of these sites relate to the Hopewell Works, Barnes Works, and or the Alembic mentioned in the public comments, and, if so, how? Do any of these relate to the possible section of the Great Hopewell Road illustrated in Appendix B (FEIS at B-229)?

- G. What is the basis for selecting \$25,317 as the average per capita income for the area (FEIS at 3-51)?
- H. What were the models used for the year 2002 to estimate the radiation dose to the maximum exposed individual from the ACP? What input parameters and other assumptions that were made in running the models? (FEIS at 3-64).
- I. Have the impacts from postulated accidents been evaluated for the ACP, including but not limited to releases during any part of the material flow path from events such as container drops, valve shears, earthquakes, vehicle and aircraft crashes into buildings and storage yards, associated fires, etc. (FEIS at 4-1)?
- J. The NRC Staff recommends additional mitigation measures to reduce impacts from matter emissions by requiring the use of Tier 2 vehicles and low sulfur diesel fuel. How will this recommendation be documented, required, implemented, and enforced? (FEIS at 4-12).
- K. The NRC Staff states that decontamination and decommissioning of old enrichment centrifuges would be controlled by Best Management Practices

(BMP) and by utilizing air filtration and trapping systems in order to capture releases. How will these controls be required, implemented, and enforced? (FEIS at 4-12).

- L. Clarify, based on the NRC Staff's review, that the size of the disturbed area needed for the new cylinder yard does not require detention ponds to reduce the peak runoff to the neighboring streams and to provide control for potential radiological releases. What was the technical justification that demonstrated to the Staff that these ponds are not required as a component of the BMPs for controlling runoff? (FEIS at 4-19).
- M. To what degree has the NRC Staff reviewed the impact analysis to ascertain if the potential impacts of increased peak runoff rates on the biota in the adjacent streams is caused by the increased impervious area of the storage yard (FEIS at 4-26)?
- N. Is the 76 centimeter dimension for the heeled cylinders a length, a radius or a diameter? Explain the process which generates these heeled cylinders, including the composition of the material (e.g., DUF_6 , EUF_6 , both, or other). (FEIS at 4-79).
- O. Does the analysis of the cumulative impact of the proposed action include decommissioning as well as construction and operation, listed in the first bullet item of FEIS page 4-100?
- P. What are the aquifer parameters that were used to derive the numbers needed to calculate that the withdrawal rate would be 31% of the system capacity (FEIS at 4-108)?

PART II - NRC STAFF PRE-FILED TESTIMONY

A. HEARING TOPICS RELATED TO THE SER

HTS-1. Facility Description

Consistent with the four acceptance criteria presented in NUREG-1520 for the description of the facility and process (NUREG-1520 at 1-1 to 1-2), please develop and submit a one (1) hour presentation that addresses the following:

- A. Provide a summary discussion of:
 - 1. Process flow, including but not limited to the sequence of activities, volume and a description of all materials (e.g., chemical formula, state, pressure, temperature).
 - 2. Specific points of transfer (referencing specific storage yards, process buildings and transportation routes).
 - 3. The locations and size of material storage areas, and the length of time a given material will reside at each location.
- B. Discuss the handling rate (e.g., tons/day) for each material at each location in the flow path and comment on the potential for radiological release along the process flow path and any potential for criticality at the 10% enrichment level.
- C. Discuss the sequential process from receipt of UF₆ to shipment of EUF₆, including the storage of DUF₆, on-site deconversion of DUF₆, and shipment of waste tails. Reference locations on site specific maps and illustrate operations (using pictures if possible).
- D. Describe the travel path for storage cylinders from receipt of empty vessels – including the number of cylinders and length of storage – to the return of empty cylinders and off-site shipment of full containers.

- E. Discuss and illustrate, with pictures and drawings, the location and process for centrifuge fabrication.
- F. Describe the location and timing of refurbishment, site preparation, and building construction activities that will take place as part of ACP construction and operation.

HTS-2. Department of Energy (DOE)/NRC Memorandum of Understanding (MOU)

The NRC Staff indicated in a briefing to the Advisory Committee on Nuclear Waste (ACNW) on March 16, 2005, that a MOU was being developed between DOE and NRC to delineate each agency's oversight responsibilities regarding the proposed ACP.

- A. Provide a copy – and discuss the current status – of the latest version of the MOU.
- B. Discuss and explain the regulatory overlaps and gaps between DOE and NRC that are intended to be addressed by the MOU, and how the MOU resolves the regulatory responsibilities of each agency.

HTS-3. License Conditions (LC)

The NRC Staff indicated in the SER that it intends to impose two LCs regarding (1) the IROFS boundary definition, and (2) decommissioning financial assurance.

- A. Provide a reference to the related chapter(s) in the SER or FEIS that prompted the proposed LC.
- B. Provide a brief summary of the potential deficiency each LC is intended to rectify.
- C. Indicate how the Staff plans to monitor USEC compliance with the LC.
- D. If the Staff is considering imposing any additional LCs, provide the same information requested in items (A) - (C) with regard to those additional LCs.

HTS-4. Exemption Requests

The NRC Staff in the SER stated that USEC has made numerous exemption requests in its license application. For example, a request for exemption from the requirement to purchase liability insurance; a request for exemption for labeling of UF₆ feed, product, and DU cylinders; and a request for approval for an alternative method for controlling access to high radiation areas, among others. For each exemption request the Staff has received, provide:

- A. The current status of the Staff's review of the exemption request.
- B. USEC's analysis regarding the potential adverse impact on safety by the requested exemption, if any, to support its request.
- C. An explanation of the Staff's rationale in deciding whether or not to grant the request.
- D. An explanation of how the Staff examined the potential adverse impact on plant safety from the granted exemptions when viewed collectively, if the Staff grants some or all of these exemption requests.

HTS-5. USEC's Commitments

The NRC Staff indicated in the SER that USEC has made numerous commitments. For example, USEC committed to having an adequate group of qualified staff for the NCS program and committed to reasonable engineered and administrative controls to minimize the risk of fires and explosions.

- A. Provide a list of all commitments made by USEC that the Staff considers important to safety.
- B. For those commitments listed in (A) above:
 - 1. Describe USEC's proposed implementation schedule, if any.
 - 2. Explain how the Staff will monitor these commitments.

3. Some of these commitments will have a significant impact on safety (such as the above mentioned commitments to minimize the risk of fires and explosions, and the NCS program). Has the Staff considered making these commitments into LCs, and, if not, explain why these commitments should not be LCs?

HTS-6. Financial Capability

- A. Explain how the financial statements made in SER Chapter 1 demonstrate USEC's current and continuing access to the financial resources necessary to engage in the proposed activity, as required by Section 1.2.4.3(2) of NUREG-1520 (i.e., explain USEC's "reasonable approach for financing the construction and operation of the facility" (SER at 1-7)).
- B. Discuss the details of the management controls for each of the transition options from the lead cascade to ACP; relate each management control to the incremental construction funding and decommissioning costs (SER at 1-9).

HTS-7. Decommissioning Funding

The NRC Staff indicated that there is a pending exemption request by USEC that would allow incremental funding for DU disposition, and that under this proposed exemption, instead of a surety bond, USEC could choose alternate funding methods consistent with 10 C.F.R. Part 70 and guidance provided in Appendix A to NUREG-1757, Vol.3. The Staff has proposed that an LC be added to ensure timely Staff review of USEC's financial assurance instruments.

Please address the following:

- A. The Staff indicated that there is a pending exemption request by USEC that would allow incremental funding for DU disposition; instead of a surety bond, USEC may choose alternate funding methods consistent with 10 C.F.R. Part 70

and guidance provided in Appendix A to NUREG-1757, Vol.3, Consolidated NMSS Decommissioning Guidance - Financial Assurance, Recordkeeping, and Timeliness; and an LC will be added to the license to ensure timely review of USEC's proposed financial assurance instruments. Assuming the exemption request is granted and USEC chooses an alternate method other than a surety bond, what are the essential elements in the contemplated LC to ensure the adequacy of decommissioning funding? If the exemption request is denied and USEC does not choose any alternate method to a surety bond, will the LC be necessary?

- B. Discuss whether decommissioning funding is related to incremental construction funding, especially during the latter stages of construction when there may be some source, by-product, and special nuclear material (SNM) on site during the transition from the lead cascade to full-scale operations.
- C. Discuss each component of decommissioning funding and graphically illustrate the proposed schedule of incremental funding for decommissioning.
- D. Explain the difference between the tails disposal referenced in the SER at page 10-8 and disposal of DU discussed in the SER at pages 10-9 to 10-10.
- E. When will DOE's deconversion plant be operational at Portsmouth, and when is it estimated that this plant will be available to process ACP tails? What is the cost basis that generated the figures for deconversion as stated in the SER at page 10-10, and how were those costs projected to the proposed timing for deconversion of ACP's DUF₆?
- F. In regards to the trigger point for incremental funding of financial assurances for decommissioning (SER at 10-14):
 - 1. What is the definition of "full capacity" used by the Staff?

2. Why does the LC only reflect the need to provide cost estimates for DU once full capacity is achieved given that the plant may never be at full capacity? Discuss any drawbacks to using the time when USEC takes possession of licensed material rather than the “full capacity” trigger and the potential need to reflect this in a license condition.
3. Why shouldn't this updated cost estimate occur once by-product is being produced? How will the new cost estimates be incorporated into approved funding mechanism, and is there an LC that reflects this?

G. Disposal Costs for DU: To help the Board review the Staff's conclusions that USEC has performed a credible site-specific cost estimate for decommissioning activities (NUREG-1520 § 10.1), the Board requests the following information relating to disposal costs for DU.

1. Reconcile the quantity and cost figures presented in the SER at pages 10-9 to 10-10, with those presented in the FEIS at pages 2-34 to 2-35. For example, the SER considered the need to dispose of 265,300 MT of UF₆ at \$2.96/kg, while the FEIS considered the need to dispose of 512,730 MT of UF₆ at \$3.51/kg.
2. Present the decommissioning components that are included in DOE's cost estimate supplied to USEC (DOE 2005) for disposing of DU. Discuss the disposal technique that DOE used in generating this cost estimate and summarize the disposal techniques that are available at licensed Low Level Waste (LLW) disposal facilities in the United States (e.g. Envirocare site and DOE's Nevada Test Site).
3. Assuming DOE cost figures relate to a near-surface technique at an LLW disposal facility:

- (a) Provide an update on the status of the Staff's consideration of whether the quantities of DU at issue in the waste stream from uranium enrichment facilities warrants amending 10 C.F.R. § 61.55(a)(6), as the Staff was directed to consider (CLI-05-20, 62 NRC 523, 536 (2005)).
- (b) Discuss the degree to which near-surface disposal of the large quantities of DU meets the performance goals of 10 C.F.R. Part 61, Subpart C.
- (c) Explain the detailed steps that would be followed to increase decommissioning funding to address any additional costs associated with other disposal requirements that could result if 10 C.F.R. § 61.55(a)(6) was amended to address the impacts from large quantities of DU.
- (d) Discuss the mechanisms that will be in place at the issuance of the license to ensure that USEC has the wherewithal to, and actually provides, the increased funding.
- (e) Discuss the degree to which the Staff evaluated the economic viability of the project should intermediate or deep geologic burial be required for the large quantities of DU.

HTS-8. Accident Analysis

The NRC Staff has performed an independent analysis of USEC's evaluation of credible accidents in its ISA. The Staff's analysis was described in Appendix B of the SER.

- A. Are there any credible accident sequences not considered by USEC which, in the Staff's judgment, should have been considered?
- B. Has the Staff determined the most likely (in likelihood of occurrence) accident sequences in the following categories:

1. Credible high-consequence events (as defined in 10 C.F.R. § 70.61(b)).
 2. Credible intermediate-consequence events (as defined in 10 C.F.R. § 70.61(c)).
- C. If the answers to the questions (B) or (C) above are positive, provide a brief description of the accident sequences, and their likelihood of occurrence.
- D. In ensuring compliance with the performance requirements in 10 C.F.R. § 70.61(b),²⁰ explain the rationale in NUREG-1520 for selecting a definition of “highly unlikely” as less than 10^{-5} per year? (SER at 3-18).
- E. In ensuring compliance with the performance requirements in 10 C.F.R. § 70.61(c),²¹ explain the rationale in NUREG-1520 for selecting a definition of “unlikely” as between 10^{-4} and 10^{-5} per year (SER at 3-18).
- F. Explain in greater detail why, in the Staff’s evaluation of a generic criticality accident, the Staff expects no significant impact on the source term from a 4% enrichment or a 10% enrichment (SER § B.1.2.6).
- G. In SER Appendix B the Staff discusses the selection of six potential accident sequences for detailed evaluation, including a generic inadvertent nuclear criticality. The most critical accident involving the release of UF_6 relates to the breach of an over-pressurized liquid cylinder and breach of piping during liquid UF_6 transfer. Provide additional information regarding the mitigating measures that will be taken to reduce the consequences of these types of accidents.

²⁰ 10 C.F.R. § 70.61(b) (“The risk of each credible high-consequence event must be limited. Engineered controls, administrative controls, or both, shall be applied to the extent needed to reduce the likelihood of occurrence of the event so that . . . the event is highly unlikely. . . .”).

²¹ 10 C.F.R. § 70.61(c) (“The risk of each credible intermediate - consequence event must be limited. Engineered controls, administrative controls, or both shall be applied to the extent needed so that . . . the event is unlikely. . . .”).

- H. Has the Staff evaluated any potential accidents that might result from material incompatibility with an inadvertent intrusion of excess moisture into the centrifuge cascades? Discuss the potential for moisture intrusion during the feeding, enrichment, or withdrawal of UF₆ in the facility process, and the potential formation of aqueous hydrofluoric acid in the centrifuges. What effects would the reaction of resulting hydrofluoric acid have on the materials that are used to fabricate the rotor and seals of the centrifuge?

B. HEARING TOPICS RELATING TO NEPA/FEIS

HTE-1. Purpose and Need of the Facility

- A. Verify the capacity of the facility that was evaluated for the FEIS, and, if it varied, indicate which capacity related to specific FEIS sections, and the rationale for selecting that specific capacity.
- B. Address the topics covered by USEC in their ER Section 1.1, indicating with specificity whether and why the NRC Staff agrees with that information.
- C. Discuss what changes have occurred in the purpose and need for ACP now that the LES facility has been licensed.
- D. In regards to the impact of the ACP on meeting U.S. demands for enriched uranium, discuss what controls or agreements are in place to assure that ACP's enrichment capacity would be dedicated to U.S. markets. If there are none, explain how the construction of the plant can be allocated to meeting DOE's goal of fulfilling domestic supplies of EU (FEIS at 1-3 to 1-6).

HTE-2. Impacts of DU Disposal

DU is a Class A LLW. See 10 C.F.R. Part 61. Discuss the NRC Staff's assessment of the impacts of disposing of the ACP DU in its impact analysis. As part of this, provide a summary of the:

- A. "Hard look" that the Staff has taken at the environmental impacts of near-surface disposal of large quantities of DU from the ACP.
- B. Analysis techniques used to evaluate the impacts, including any models and governing parameters that were used to assist in the impact assessment.
- C. Degree to which near-surface disposal of the large quantities of DU meets the performance goals of 10 C.F.R. Part 61, Subpart C, which is referenced by 10 C.F.R. § 61.58, including the protection of the general public, protection from inadvertent intrusion, protection of individuals during operations, and achievement of long-term stability after closure.
- D. Resulting appropriateness of disposing of large quantities of DU using near-surface disposal techniques.
- E. Determination that the site(s) considered for disposal of DU:
 - 1. Are licensed and have the capacity to accept the quantities of DU in light of other potential demands from other facilities.
 - 2. Have been independently reviewed by the Staff and that the Staff has exercised its independent judgment in determining the radiological impacts of disposal at the particular site(s).
- F. Adequacy of the Staff's NEPA analysis relative to the impacts of near-surface disposal of DU as documented in the FEIS.
- G. Effect on the impacts of transportation, disposal, and costs should other burial

options besides near-surface burial be required should 61.55(a)(6) be amended.

HTE-3/HTS-9. Environmental Monitoring

To help evaluate the thoroughness of the NRC Staff's review of the impact of the ACP on the environment and of USEC's environmental monitoring plan, and to clarify the Board's understanding of the proposed monitoring program as it relates to existing and future relationship between DOE and ACP monitoring, please address the following:

- A. Provide larger maps showing the sampling locations for each of the media listed on FEIS Table 6-2 (FEIS at 6-2).
- B. Summarize the existing known radiological and chemical impacts from the previous gaseous diffusion facility, by addressing the following by medium:
 1. Soils:
 - (a) Show the locations of the soil sampling points including the nine reservations sampling locations, six off-reservations sampling locations, and 12 remote sampling locations.
 - (b) Explain how these 27 sampling locations relate to the list of 46 sampling locations provided on Table 6-2 (FEIS at 6-2).
 2. Surface water:
 - (a) Illustrate the locations of the four lagoons, eight holding ponds, and four named streams on the DOE property (FEIS at 3-26).
 - (b) Explain how the sediment samples relate to the surface water samples (Table 6-2, FEIS at 6-2).
 - (c) Show the locations of the 14 surface water monitoring points and a summary of the tables of the 2001 water quality and sediment concentrations.

(d) Verify whether these surface waters were only monitored in 2001 and, if so, is there a reason that they were not monitored since 2001 (FEIS at 3-33).

3. Groundwater impacts:

(a) Show the locations of the on-site monitoring well locations, general location of the projected groundwater flow paths (i.e., the five groundwater contamination plume, including beryllium, chloroethane, trichloroethylene, americium, and uranium), and the locations where alpha and beta activity exceeded standards (see FEIS at 3-36).

(b) Summarize the eventual fate of the existing groundwater contamination, specifically in relationship to the ACP facilities, including the cylinder storage yards.

C. To help assess the Staff's finding that USEC's environmental monitoring is acceptable in accordance with NUREG-1520 § 9.4.3.2.2(2), please address the following:

1. In regards to the planned discharge of effluents (SER at 9-9 to 9-10):

(a) Discuss the radioactive and non-radioactive waste stream pathways for air, liquid and solid materials, referencing specific locations at ACP for control facilities, discharge points, and compliance monitoring (include in this discussion the annual estimates of the volumes and mass of the waste at the various stages/locations).

(b) Summarize and explain the effluent controls to maintain public doses at ALARA, and how the ACP's design procedures for operation will minimize contamination from the facility and generation of radioactive waste.

2. In regards to monitoring for inadvertent releases of radionuclides and to demonstrate that the acceptance criteria of NUREG-1520 § 9.4.3.2.2(2) have been met, present and describe, in detail:
 - (a) Background and baseline concentrations of radionuclides in environmental media that have been established through sampling and analyses.
 - (b) Proposed monitoring including sampling locations, frequencies, analyses and Minimal Detectable Concentration for sampling, and action levels and actions to be taken if levels are exceeded, demonstrating that the action levels are ALARA and below the limits in 10 C.F.R. Part 20, Subpart B.
 - (c) The effectiveness of the monitoring program in assessing environmental impacts from radiological and nonradiological releases from high and intermediate consequence accident sequences in the ISA.
 3. With regards to air, surface water, groundwater, soil, sediments, and vegetation impacts, outline USEC's proposed plans to assess and evaluate the monitoring data collected by DOE's existing monitoring program and how USEC would make adjustments to the program if data indicated a need.
 4. Explain how the use of effluent monitoring and modeling demonstrates consistency with meeting the specific criteria (a) thru (i) in NUREG-1520, § 9.4.3.2.2(2) (NUREG-1520 at 9-14 to 9-15).
- D. In regards to the proposed monitoring discussed in FEIS Chapter 6:
1. Discuss the regulatory requirements and/or industry guidelines, if any, for monitoring inadvertent releases of radioactivity to soil, sediment, and

liquid pathways.

2. Discuss the relationship between DOE monitoring and that proposed for the ACP by describing each party's programs, responsibility, anticipated data sharing; any USEC plans to evaluate DOE's annual data; and any protocols or understandings that are anticipated that would allow USEC to augment the program to address current or future needs and procedures to incorporate changes desired by USEC [in reference to the acceptance standards of NUREG-1520 § 9.4.3.2.2(2)].
- E. Explain how the impact from a hypothetical release from ACP could be separated from the historic impacts, and, as a corollary, if a future radiological release was detected, how would it be possible to determine which portion and/or activity at the site was the source of the impact. Discuss the extent that DOE's existing monitoring program might or might not detect unanticipated inadvertent releases of radionuclides to the environment.

ADDITIONAL ADMINISTRATIVE MATTERS

The Board recognizes that in properly responding to its questions on February 20, 2007, and in preparing the written direct testimony that will be submitted on March 5, 2007, it may be necessary, or at least helpful, for the NRC Staff to use, or make reference to, proprietary or safeguards information which should not be filed in the public record. Accordingly, we direct the Staff to segregate such information from the bulk of their submissions, bind it separately, and mark it appropriately in order to preclude any inadvertent disclosure of such sensitive information. We also direct the Staff to coordinate with counsel for USEC, before it files its submissions, in order to insure that any difference of opinion regarding the appropriate confidentially status of any document, or other information, is resolved before it is placed on the

public record. Likewise, if USEC believes that it may be helpful for it to use, or make reference to proprietary or safeguards information in order to properly respond to the Board's questions on February 26, 2007, or in preparing the written direct testimony that it may submit on or before March 12, 2007, it shall follow the procedure outlined above.

In addition, the Board contemplates that one of the first matters that will be addressed at the commencement of the Hearing on March 13, 2007, will be to identify and resolve the handling of proprietary and safeguards information during the course of the hearing. Therefore, if either party anticipates that more than one hour will be necessary to resolve the handling of such confidential information, after consultation with counsel for the other party, they should promptly request that the Board schedule a Pre-hearing Conference at which time such matters can be resolved.

Pursuant to the Commission's Order dated February 1, 2007, the Board proposes to conduct the Hearing on this matter in Rockville, Maryland, beginning at 10:00 A.M. on March 13, 2007. Because one of the Administrative Judges assigned to this Board will be out of the country for several weeks and will not be returning to the United States until the evening of March 16, 2007, we intend only to resolve administrative matters at that time, such as the admission of written testimony and exhibits. The Board will then recess until Monday, March 19, 2007, at 10:00 am, at which time we will begin the presentation of oral testimony. Once the presentation of testimony begins on March 19, the hearing will continue thereafter from day to day between 10:00 a.m. and 6:00 p.m. until completed.

We direct that on or before February 9, 2007, the parties notify the Board of requests for clarification or any objection to any part of this Order. Any objection shall explain the basis for the objection, and shall also explain the reasons for and the benefits to be derived by the party's proposed alternatives.

IT IS SO ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD²²

/RA/

Lawrence G. McDade, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Peter S. Lam
ADMINISTRATIVE JUDGE

/RA/

Dr. Richard E. Wardwell
ADMINISTRATIVE JUDGE

Rockville, Maryland
February 6, 2007

²² Copies of this Order were sent this date by Internet e-mail transmission to (1) Counsel for the NRC Staff and (2) Counsel for USEC.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
USEC Inc.) Docket No. 70-7004-ML
)
)
(American Centrifuge Plant))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB ORDER (ESTABLISHING A MODIFIED CASE SCHEDULE) (ISSUING QUESTIONS AND IDENTIFYING HEARING TOPICS) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 70-7004-ML
LB ORDER (ESTABLISHING A MODIFIED CASE SCHEDULE)
(ISSUING QUESTIONS AND IDENTIFYING HEARING TOPICS)

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[Original signed by Evangeline S. Ngbea]

Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 6th day of February 2007