USEC
A Global Energy Company

June 19, 2002
AET 02-0003

Mr. Martin J. Virgilio
Director, Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

USEC Comments Regarding Licensing a Uranium Enrichment Facility

Dear Mr. Virgilio,

The purpose of this letter is to provide the Nuclear Regulatory Commission (NRC) with USEC Inc. (USEC) comments regarding licensing a Uranium Enrichment Facility (UEF). In a meeting with the NRC on April 30, 2002, Louisiana Energy Services (LES) asked the NRC to set forth guidance that would eventually culminate in a Commission Order regarding six specific issues related to licensing a UEF. In a letter dated May 14, 2002 (Reference 1), USEC requested that the NRC afford potentially affected parties an opportunity to comment on these issues before adopting any new regulatory policies and positions regarding the licensing of a UEF. In Reference 2, the NRC asked USEC to provide comments by June 21, 2002.

USEC is pleased to provide the comments contained in the Attachment to this letter on those issues raised by LES that affect licensing a UEF. Due to the short comment period, USEC may have additional comments as it further evaluates the issues or as new information is brought forward on these issues. As you are aware, USEC plans to apply for a license to construct and operate a UEF using centrifuge technology and would be affected by new regulatory policies and positions related to licensing a UEF. However, USEC notes that other stakeholders may be affected by some of the policy issues raised by LES.

We appreciate the NRC's effort to ensure that actions taken in the LES licensing proceedings do not inadvertently affect USEC's licensing or unfairly impact either LES or USEC. If you have any questions on this matter, please contact Mario Robles, Manager of Advanced Technology Licensing, at 301-564-3408.

Sincerely,

for Steven A. Toelle, Director
Nuclear Regulatory Affairs

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PDR

References:

1. Letter from Steven A. Toelle (USEC) to Martin J. Virgilio (NRC), "Regulatory Policies and Positions Regarding Licensing of Uranium Enrichment Facilities," AET 02-0002, dated May 14, 2002.

2. Letter from Melvin N. Leach (NRC) to Steven A. Toelle (USEC), "Policy Issues Associated with the Licensing of a Uranium Enrichment Facility," dated June 6. 2002.

Attachment: As Stated

cc: J. Giitter, NRC HQ
T. Johnson. NRC HQ
M. Leach. NRC HQ
J. Dyer. NRC Region III

Attachment
AET 02-0003

USEC Comments Regarding Issues Involving Licensing of Uranium Enrichment Facilities

1. **Tails Disposition** – Section 3131 of the 1996 USEC Privatization Act obliges the Department of Energy (DOE) to accept Depleted Uranium (DU) for disposal upon the request of "any person licensed by the NRC to operate a uranium enrichment facility...under...the Atomic Energy Act." if two conditions are satisfied. First, the DU is declared to be Low-Level Waste (LLW) and second, the generator reimburses DOE for the cost of disposal. LES recommends that the NRC consider this disposal path as a "plausible strategy" for disposing of the depleted tails created by a UEF. USEC agrees with this LES recommendation.

2. **Environmental Justice (EJ)** – In 1994, Executive Order 12898 directed federal agencies to make EJ part of their mission to help identify and address situations where minority and/or low-income populations bear a disproportionate amount of adverse health and environmental effects. The Order and the Interagency Working Group established by the Order, however, did not provide quantitative measures to ascertain whether an EJ issue exists. LES has recommended that the NRC adopt a six-part quantitative criterion to provide a clear standard for this issue. USEC agrees in principle with this LES recommendation.

   USEC agrees that clarity, predictability and repeatability in the licensing process are axiomatic to effective and efficient regulation. To that end, a Commission Order on EJ could provide needed clarity on this issue. However, USEC notes that such an Order may have broader implications for licensing other nuclear facilities and it may be appropriate for the NRC to solicit comments from other stakeholders prior to adopting the LES recommended standard for EJ.

3. **Antitrust Review** – At the time of the first attempt by LES to license a domestic UEF, an antitrust review pursuant to Section 105 of the Atomic Energy Act (AEA) of 1954 was required because the facility was to have been licensed pursuant to Sections 103(d) or 104(d), to which Section 105 applies. However, in 1990, the Congress enacted Public Law 101-575 (the "Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990") that added a new Section 193 to the AEA pertaining specifically to licensing a UEF. This new section transferred statutory authority for licensing a UEF to Sections 53 and 63 of the AEA. One consequence of this change is that an antitrust review is no longer required. LES recommends that the NRC confirm that an agency antitrust review is not required. USEC agrees with this recommendation.

4. **Financial Qualification** – Regulations require that an applicant be financially qualified to engage in the proposed activities associated with a UEF. However, neither the regulations in 10CFR Part 70 nor the implementing Standard Review Plan (NUREG-1520) provide specific guidance regarding what constitutes financial qualification. LES has recommended that the NRC establish two conditions that must be satisfied by LES prior to constructing or operating the UEF proposed by LES. The first condition is that the construction of the UEF would not begin until all funding is fully committed, with a minimum of 30% equity being derived from the parents and affiliates of the applicants with the balance taking the form of "firm commitments." The

second condition is that work on the UEF project would not proceed unless LES has "long-term" (i.e., 5 years) enrichment contracts with sufficient prices to cover construction and operating costs and a return on the investment for the entire term of the contracts.

While the criteria proposed by LES may be one way an applicant may chose to satisfy the regulatory requirements, it is not the only way these requirements may be satisfied. Consequently, to the extent that the criteria proposed by LES are meant to establish the only means of satisfying the regulatory requirements, USEC believes that the LES recommendation is excessively broad and prescriptive for a UEF. The regulatory focus of financial qualification should assess whether there is reasonable assurance that an applicant has or will have the financial resources at each stage of the activity (i.e., construction, operations, and decommissioning) to protect public and worker health and minimize danger to life or property. This assessment is limited to financial resources dedicated to health and safety rather than all the financial factors necessary to make the project commercially viable, which although important, are not relevant to the satisfaction of the regulation.

Unlike reactors, a UEF can be financed and built incrementally; that is, the plant can safely produce commercial product well in advance of attaining full plant capacity. Further, regulations should not be construed as precluding a UEF from being built and operated as a "merchant" plant; that is, without the pre-existence of long-term contracts for the output of the UEF. A determination that such long-term contracts are needed appears to be inconsistent with the intent of the regulations.

5. Foreign Ownership – In 1990, when the Congress modified the AEA, the licensing of a UEF was brought under the nuclear materials licensing provisions of the AEA (Sections 53 and 63). As a result of this change for licensing a UEF, the applicable statutory authority governing the assessment of foreign involvement in a UEF is set forth in Section 57 of the AEA. Section 57 requires that issuance of the license not be "inimical to the common defense and security." LES recommends that the NRC affirm as a matter of law that the "inimicality" standard does not prohibit foreign ownership, control, or domination of up to and including 100% ownership, control or domination. USEC believes that the LES recommendation would render the inimicality standard meaningless and contravene Congressional intent. USEC believes that the NRC cannot reach an a priori determination that 100% foreign ownership is permissible. Instead, under the inimicality standard, each UEF application must be evaluated on a case-by-case basis and a specific determination of non-inimicality made.

The most recent pronouncement by Congress on this issue was the USEC Privatization Act in which Congress required that the sole domestic enricher not be "owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government." (cf., Section 3116 of the USEC Privatization Act and 10 CFR 70.40). Although not directly applicable to UEF's in general, this prohibition against foreign ownership of the current domestic UEF underscores the importance of national security considerations in NRC evaluations under the inimicality standard.

In SECY-98-252, "Preliminary Staff Views Concerning Its Review Of The Foreign Ownership Aspects Of AmerGen, Inc.'s Proposed Purchase Of Three Mile Island, Unit 1," dated October 30, 1998, the NRC recognized a distinction between the foreign ownership issue for a UEF and other nuclear facilities (e.g., reactors). In SECY-98-252, the NRC states that "these differences relate both to the expressed goal of Congress to maintain a reliable and economical domestic source of enrichment services and to non-proliferation concerns...".

In summary, USEC believes that foreign ownership and control of domestic enrichment facilities is an issue to which Congress continues to assign important national security interests. NRC's evaluations of UEF applications should continue to rigorously apply the applicable standards for foreign ownership and control even-handedly.

6. **National Environmental Policy Act (NEPA) Analysis of Need and No Action Alternative** – LES has recommended that the NRC presume that a "need" exists for new, domestic enrichment capacity and that no consideration of a "no action alternative" is required in the Environmental Report. USEC sees no basis for exempting an applicant from the requirement to provide both an "Analysis of Need", and an evaluation of the "No Action Alternative" as part of the Environmental Report (ER), as required by NEPA, NRC implementing regulations and the Council of Environmental Quality (CEQ) regulations that NRC has decided to voluntarily follow in licensing proceedings. USEC expects to submit such information as part of its Environmental Report associated with USEC's application for a license to construct and operate a UEF using centrifuge technology. Such information appears to be needed to enable the NRC to meet its statutory obligations under NEPA.

   The NRC should note that in addition to assessing the pure market impact of the additional enrichment capacity represented by another domestic UEF, the NRC may wish to solicit comments from other government agencies (e.g., The Department of State) regarding the potential impact of additional domestic UEF capacity to established national security objectives. Specifically, the 1993 United States-Russia nonproliferation agreement to convert highly enriched uranium (HEU) taken from dismantled Russian nuclear warheads into low-enriched uranium (LEU) fuel is buoyed by a stable enrichment market. As the U.S. Executive Agent for this program, USEC is responsible for administering and reporting on the goals of this national program and suggests that an evaluation by the NRC should consider and give due deference to government agency views concerning the impact of additional domestic UEF capacity on this program.

   Finally, Section 193 of the Atomic Energy Act requires that an Environmental Impact Statement (EIS) must be prepared for any license for a UEF. Under NRC regulations and guidance (see Part 51 and NUREG 1520) as well as CEQ regulations and numerous court decisions, an EIS must include a discussion of the purpose and need for the proposed action and an analysis of reasonable alternatives including specifically the no action alternative. Understanding the purpose and need for a project is important to permit the NRC to make an informed decision on the costs and benefits of the proposed action and determine the scope of the alternatives that must be considered. The analysis of the "No Action Alternative" is important to establish an "environmental baseline" from which to judge the environmental impact of the proposed action.

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April 24, 2002

U.S. Nuclear Regulatory Commission
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Dear Sir or Madam:

Please find enclosed copies of "white papers" on a number of key policy issues associated with the licensing of a uranium enrichment facility. These papers address the following topics: Analysis of Need and No Action Alternative under NEPA, Environmental Justice, Financial Qualifications, Antitrust Review, Foreign Ownership, and Tails Disposition. We believe that clear Commission direction on the issues set forth in the enclosed papers will be essential to the conduct of an efficient review process.

We look forward to discussing the issues presented in the enclosed papers with the NRC Staff on April 30th.

Sincerely,

Peter L. Lenny

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POLICY ISSUES ASSOCIATED

WITH THE

LICENSING OF A URANIUM ENRICHMENT FACILITY

ISSUE 2: ENVIRONMENTAL JUSTICE

ISSUE PRESENTED

The purpose of this memorandum is to discuss the need for the Nuclear Regulatory Commission ("NRC" or "Commission"), in its initial order defining the parameters of an adjudicatory hearing on the licensing of a uranium enrichment facility, to establish binding standards to be applied in the consideration of environmental justice ("EJ") in any such adjudicatory licensing proceeding. This memorandum discusses the background of this recent, relatively undefined concept in NRC practice, and recommends certain measures which will, if adopted by Commission order, permit that proceeding to go forward expeditiously while ensuring consideration of all pertinent concerns.

DISCUSSION

The concept of environmental justice arose from a 1994 Executive Order (EO 12898) encouraging federal agencies to consider the effects of their programs, policies, and activities on minority and low-income populations within the United States. That Order, by its terms, created no new rights or responsibilities enforceable at law against federal agencies. Moreover, the NRC made clear when choosing to abide by the intent of the Order that it was doing so voluntarily since, as an independent federal agency, the Order is not legally binding upon it. Nevertheless, since 1994 the NRC has endeavored to conduct its activities pursuant to the goals set forth in the Order.

Over the course of the past several years since the issuance of EO 12898, environmental justice contentions have occupied substantial time and resources of license applicants, the NRC Staff, the Licensing Board and the Commission, particularly in two proceedings discussed below. Yet notwithstanding the considerable efforts that have been devoted to addressing such contentions, there are no clearly-defined, binding criteria for the consideration of contentions on environmental justice in NRC adjudicatory proceedings. As a result, environmental justice contentions continue to require inordinate time and effort to resolve.

The need for the Commission to define the parameters of EJ-based concerns is evident in two recent cases where EJ issues have arisen — *Louisiana Energy Services* ("*LES*") and *Private Fuel Storage* ("*PFS*"). In both those cases, where applicants have sought to construct facilities licensed under 10 C.F.R. Parts 70 and 72, respectively, substantial time has been required to attempt to resolve EJ-related contentions. In *LES*, for instance, the contention raising EJ-type

issues was admitted by the Licensing Board in December of 1991. The formal evidentiary hearing on this contention occurred in March of 1995, and all proposed findings were submitted to the Board by August of 1995. Yet the initial Licensing Board decision on the EJ contention was not issued until May 1997, 20 months after the matter was submitted to the Board and over 5 years after the contention was first admitted. In April of 1998, the Commission issued a decision overturning the Licensing Board decision in part, and remanding the overturned issue for further consideration by the Licensing Board. Shortly after this, the applicant withdrew its application and the NRC's licensing proceeding was terminated without any final ruling on the remanded EJ issues.

Similar delays have occurred in the currently pending *PFS* proceeding, where an EJ contention was admitted by the Licensing Board in April 1998 and a motion for summary judgment and responsive pleadings were filed by July of 2001. The Licensing Board rendered its decision on this matter in February of 2002. In March of 2002, the Commission, in response to requests for interlocutory review and a stay of Licensing Board proceedings with regard to this contention, took up the EJ issue. The matter is now pending before the Commission for a decision, with four years having passed from the time that the contention on environmental justice was first admitted by the Licensing Board.

The foregoing proceedings point to the need for the Commission to ensure that the relevant criteria for litigation of the environmental justice issue are clearly defined and well understood at the outset of any proceeding. The fact that substantial time has been consumed in each of these proceedings in addressing the issue of environmental justice -- an issue that the Commission has acknowledged creates no new rights or responsibilities enforceable at law against federal agencies -- suggests that the relevant criteria for the litigation of environmental justice contentions remain to be clearly articulated.

The Commission has emphasized in its Statement of Policy on Conduct of Adjudicatory Proceedings that applicants for a license are entitled to a prompt resolution of disputes concerning their applications (*See* CLI-98-12, p. 19). Unfortunately, in the absence of clear Commission guidance on the standards to be applied in adjudicating license applications, such as that provided, for example, in recent nuclear plant operating license renewal proceedings, the chances of significant delays and the resultant commitment of agency and licensee resources increase dramatically. Environmental justice is an issue where careful attention to anticipating and addressing policy issues that might otherwise arise during the course of a proceeding -- and establishing standards for the litigation of these issues -- will go a long ways toward reducing the litigation of what are essentially policy issues as to what should be the applicable regulatory standard. For instance, in *LES* the Commission ultimately ruled that it is outside the agency's purview to determine whether facility siting criteria were motivated by racial discrimination, if such criteria are not discriminatory on their face. In *PFS*, the Staff's recent brief to the Commission on the EJ contention seeks reversal of the Licensing Board's holding that the agency must look at disproportionate impacts on subgroups within an overall subject minority population. Explicit Commission guidance, provided by order at the outset of these proceedings, might have precluded the need for later, more extensive clarifications.

While non-binding NRC Staff guidance exists on implementing EJ in agency licensing actions, it is unclear in places and lacks the force of Commission regulation or order. Particularly where the agency wishes to act consistently on an issue both as new and as potentially subjective as EJ, which derives not from considered rulemaking but from an Executive Order, a Commission order codifying and clarifying portions of that Staff guidance at the outset of a licensing proceeding (*i.e.*, upon the submission of a license application for an enrichment facility) would prove of immeasurable benefit in that proceeding.

RECOMMENDATIONS

For the foregoing reasons, we recommend that the Commission incorporate in an order upon the initiation of a licensing proceeding for an application for a uranium enrichment facility the following criteria, so as to define the parameters of EJ issues that may be considered in any such proceeding. While the following criteria do not seek to resolve every EJ-related issue, they do address a number of significant issues that, if treated in an order, will provide much-needed clarity on the standard to be applied in evaluating EJ-related contentions, and therefore ensure the efficient, focused conduct of any formal proceeding on environmental justice issues.

1. With regard to the issue of racial discrimination in siting a facility, the evaluation of this issue shall be limited to whether there is direct evidence of racial discrimination in the siting criteria employed by the applicant. Absent such evidence, no further consideration of this issue is required. This determination will be made based upon a review of the specific criteria employed by the applicant. No further inquiry into the application of the criteria will be required.

2. An evaluation of disparate impact shall only be required if: (a) the percentage of minorities or low-income households within the total population residing in the area of assessment is greater than 20 percentage points above the corresponding percentage total for the state or (in the case of minority population) county; or (b) the percentage of minorities or low-income households in the area of assessment is greater than 50 percent of that area's total population or households.

3. When examining populations in the area of assessment of a proposed facility for disparate impact, the applicant and/or Staff need only use those U.S. Census data that are most readily available to it. No further supplementation of those data is required.

4. Any assessment of disparate impact on a minority or low-income population within the area of assessment shall be performed for that population as a whole; subgroups within the larger population shall not be evaluated.

5. Due to the low risks of facility operation, the geographic area of assessment for disparate impact purposes for a Part 70 facility shall be equal to or less than a 4-mile

radius from the center of the site. If the facility site is located within city limits, the required area of assessment shall be no greater than a radius of 0.6 mile from the center of the site.

6. If the applicant proposes to locate its facility upon a site with existing industrial activity or which has previously been, or is currently being, used for nuclear-related activities, and it is determined that impacts upon a subject population must be assessed, assessment of the significance of those impacts shall focus only upon the additional impacts that the newly licensed facility will cause relative to any current impacts.

POLICY ISSUES ASSOCIATED

WITH THE

LICENSING OF A URANIUM ENRICHMENT FACILITY

ISSUE 3: FINANCIAL QUALIFICATIONS

ISSUE PRESENTED

The purpose of this memorandum is to discuss the need for the Nuclear Regulatory Commission ("NRC" or "Commission"), in its initial order defining the parameters of an adjudicatory hearing on the licensing of a uranium enrichment facility, to establish guidance on the standards for reviewing the issue of financial qualifications. Specifically, this memorandum sets forth the basis for the Commission to adopt specific criteria for undertaking any required financial qualifications review which will, if adopted by Commission order, permit that proceeding to go forward expeditiously while ensuring consideration of all pertinent concerns.

DISCUSSION

The requirement to undertake a financial qualifications review for an applicant for a uranium enrichment facility license has its basis in regulatory requirements established by the NRC requiring a determination that "the applicant appears to be financially qualified to engage in the proposed activities . . . " (*see* 10 CFR 70.22(a)(8) and 10 CFR 70.23(a)(5)).

In the LES licensing proceeding, the issue of financial qualifications was brought before the Licensing Board as a result of a contention filed by an intervenor, Contention Q, in which the intervenor asserted that "LES has not demonstrated that it is financially qualified to build and operate the CEC [uranium enrichment facility]." This contention, which was first offered by the intervenor on October 3, 1991, was admitted by the Licensing Board in a decision dated December 19, 1991. Following hearings on this matter and submission of all related pleadings (which were completed by August of 1995), the Licensing Board issued a decision on December 3, 1996 in which the Board concluded that "the Applicant has not demonstrated that LES is financially qualified to construct the Claiborne Enrichment Center within the meaning of 10 CFR 70.23(a)(5)." In so ruling, the Board concluded that:

> "To obtain a license, LES must demonstrate the commitments of the corporate affiliates of the LES partners to fund the equity portion of the facility construction costs. Additionally, the Applicant must identify the financial institutions from which it intends to borrow the debt portion of the construction costs and detail its loan commitments." (see LBP-96-25, p. 178)

The Board's decision was appealed to the Commission and, on December 18, 1997, over six years after the financial qualifications contention was first offered by the intervenor, the Commission reversed the Licensing Board's decision and, in so doing, determined that "LES appears to be financially qualified to construct and operate the CEC in a safe manner." (see CLI-97-15).

In the Commission's ruling, the Commission first rejected the Licensing Board's decision to apply the financial qualifications standards of 10 CFR Part 50, noting that the appropriate standard for evaluating the financial qualifications of LES is set forth in 10 CFR Part 70. The Commission then went on to reject the argument that the LES license application is deficient because it does not contain firm commitments for funding construction and operation of the CEC similar or identical to those typically required for commercial power reactors.

In this regard, the Commission established two conditions that must be satisfied by LES prior to constructing or operating the CEC facility:

1. Construction of the CEC shall not commence before funding is fully committed. Of this full funding (equity and debt), LES must have in place before constructing the associated capacity: (a) a minimum of equity contributions of 30 percent of project costs from the parents and affiliates of the LES partners (*e.g.*, in escrow, on deposit, etc.); and (b) firm commitments ensuring funds for the remaining project costs.

2. LES shall not proceed with the project unless it has in place long term enrichment contracts (*i.e.*, 5 years) with prices sufficient to cover both construction and operating costs, including a return on investment, for the entire term of the contracts.

RECOMMENDATIONS

Based upon the foregoing precedents, and in view of the extended time required in the LES licensing proceeding to resolve the financial qualifications issue, it is imperative that the Commission, in its initial order defining the parameters of an adjudicatory hearing on the licensing of a uranium enrichment facility, establish the criteria that will be applied in conducting the required financial qualifications review.

First, as the Commission has recently stated, "Financial qualification reviews are reviews of general, not detailed, financial statements and business plans, and would be oriented to ensuring that sufficient financial resources would be available to conduct health and safety programs . . . " (See SECY-02-0002). As a general, overarching concept, this notion should be codified as part of the Commission's initial order.

Beyond this, the initial order should set forth the two conditions articulated by the Commission in CLI-97-15:

1. Construction of the facility shall not commence before funding is fully committed. Of this full funding (equity and debt), the applicant must have in place before constructing the associated capacity: (a) a minimum of equity contributions of 30 percent of project costs from the parents and affiliates of the partners (*e.g.*, in escrow, on deposit, etc.); and (b) firm commitments ensuring funds for the remaining project costs.

2. The applicant shall not proceed with the project unless it has in place long term enrichment contracts (*i.e.*, 5 years) with prices sufficient to cover both construction and operating costs, including a return on investment, for the entire term of the contracts.

In this regard, the order should clearly state that the foregoing criteria, if satisfied, constitute the required showing for purposes of demonstrating that the applicant is financially qualified.

POLICY ISSUES ASSOCIATED

WITH THE

LICENSING OF A URANIUM ENRICHMENT FACILITY

ISSUE 4: ANTITRUST REVIEW

ISSUE PRESENTED

The purpose of this memorandum is to discuss the need for the Nuclear Regulatory Commission ("NRC" or "Commission") to clarify that no antitrust review will be required under Section 105 of the Atomic Energy Act ("AEA") for a uranium enrichment facility licensed under Section 53 and 63 of the AEA.

DISCUSSION

At the time that then-applicant Louisiana Energy Services ("LES") sought to obtain an NRC license to construct and operate a uranium enrichment facility, it was required to undergo an NRC antitrust review pursuant to Section 105 of the Atomic Energy Act of 1954, as amended ("AEA"). That antitrust review was required because the LES facility was to have been licensed pursuant to Sections 103(d) or 104(d) of the AEA, to which Section 105 applies.

In 1990, however, Congress enacted Public Law 101-575 (the "Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990"). Section 5 of that Act contained a number of provisions pertaining to licensing of uranium enrichment facilities, including one which added a new Section 193 to the AEA. That latter Section served to explicitly transfer the statutory authority under which the NRC licenses such a facility from Sections 103(d) or 104(d) of the AEA to Sections 53 and 63 of the AEA. One result of this amendment to the AEA is that the pre-licensing antitrust review which the NRC required of LES would be, and is, no longer required of applicants seeking to construct and operate such facilities.

RECOMMENDATION

The effect of newly enacted AEA Section 193 on required NRC antitrust reviews for uranium enrichment facilities is clear. Accordingly, the Commission, either in its initial order defining the parameters of an adjudicatory proceeding for licensing a uranium enrichment facility or in some other manner, should explicitly clarify that an agency antitrust review is not required to be conducted as part of the agency review of a license application submitted pursuant to Sections 53 and 63 of the AEA.

POLICY ISSUES ASSOCIATED

WITH THE

LICENSING OF A URANIUM ENRICHMENT FACILITY

ISSUE 5: FOREIGN OWNERSHIP

ISSUE PRESENTED

The purpose of this memorandum is to discuss the need for the Nuclear Regulatory Commission ("NRC" or "Commission"), to confirm the application of certain requirements related to the possible involvement of foreign entities in the partnership that will become the applicant/licensee for an enrichment facility to be constructed in the United States. Specifically, confirmation of the following points is sought:

(1) With the enactment in 1990 of Public Law 101-575 (the "Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990") , Congress directed that uranium enrichment facilities shall henceforth be licensed under section 53 and 63 of the Atomic Energy Act. As a result of this change in the statutory basis for licensing enrichment facilities, the applicable statutory authority governing the assessment of foreign involvement in such an undertaking is set forth in section 57 of the Atomic Energy Act.

(2) Section 57 does not prohibit the Commission from issuing a license solely on the basis that the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. Indeed, section 57 would permit the Commission to issue a license to an entity that is foreign owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government (including up to 100 percent foreign ownership, control, or domination), so long as the Commission concludes that the issuance of the license would not be inimical to the common defense and security.

DISCUSSION

In 1990, Congress modified the Atomic Energy Act as it relates to the licensing of enrichment facilities to provide, *inter alia*, that such facilities would be licensed under section 53 and 63 of the Atomic Energy Act ("AEA"), rather than under sections 103(d) or 104(d) of the AEA, as the law previously provided. In enacting this legislation, Congress changed the requirements for evaluating foreign involvement in enrichment facilities. Specifically, rather than requiring NRC to address "foreign ownership, control, and domination," the law as it was amended in 1990 now requires the NRC only to find, pursuant to section 57 of the AEA, that the issuance of a license

would not be "inimical to the common defense and security or constitute an unreasonable risk to the health and safety of the public."

This so-called "inimicality finding" under section 57 is a less rigid finding than the former "foreign ownership, control, or domination" finding required prior to 1990. Section 57 allows the NRC to consider, for example, the foreign country/entity involved in the licensed undertaking and whether, given the country/entity involved, it is able to make the inimicality finding. Importantly, section 57 does not prohibit the Commission from issuing a license solely on the basis that the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. Indeed, section 57 would permit the Commission to issue a license to an entity that is foreign owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government (including up to 100 percent foreign ownership, control, or domination), so long as the Commission concludes that the issuance of the license would not be inimical to the common defense and security.

RECOMMENDATIONS

As a result of the statutory changes in 1990, and based upon the foregoing discussion, confirmation of the following two points is sought:

1) As a result of the 1990 change in the statutory basis for licensing enrichment facilities, the applicable statutory authority governing the assessment of foreign involvement in such an undertaking is set forth in section 57 of the Atomic Energy Act.

(2) Section 57 does not prohibit the Commission from issuing a license solely on the basis that the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. Indeed, section 57 would permit the Commission to issue a license to an entity that is foreign owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government (including up to 100 percent foreign ownership, control, or domination), so long as the Commission concludes that the issuance of the license would not be inimical to the common defense and security.

Upon confirmation of the foregoing points, the NRC's position on this matter should be appropriately reflected in the Commission's initial order defining the parameters of an adjudicatory hearing on the licensing of a uranium enrichment facility.

POLICY ISSUES ASSOCIATED

WITH THE

LICENSING OF A URANIUM ENRICHMENT FACILITY

ISSUE 6: TAILS DISPOSITION

ISSUE PRESENTED

The purpose of this memorandum is to discuss the need for the Nuclear Regulatory Commission ("NRC" or "Commission"), in its initial order defining the parameters of an adjudicatory hearing on the licensing of a uranium enrichment facility, to establish guidance on the treatment of depleted uranium tails resulting from the operation of a uranium enrichment facility. This memorandum discusses the background of this issue and recommends an approach to the treatment of depleted uranium tails. Specifically, this memorandum sets forth the basis for the conclusion that Section 3113 of the USEC Privatization Act constitutes a "plausible strategy" for the disposal of such tails. On this basis, the NRC should incorporate this conclusion in its initial Order defining the parameters of the adjudicatory hearing for the licensing of a uranium enrichment facility.

DISCUSSION

The regulatory requirement that an applicant for a license for a uranium enrichment facility demonstrate that it has a "plausible strategy" for the disposition of its depleted uranium tails has its origin in the licensing proceeding for Louisiana Energy Services's ("LES") Claiborne Enrichment Center ("CEC"). In that proceeding, the Nuclear Regulatory Commission issued a hearing notice in which it stated that:

> These [NRC] regulations also require that the applicant address the technical, financial and insurance provisions and resources for dealing with the disposition of depleted hexafluoride tails. Plausible strategies for the disposition of tails include: storing, as a potential resource, uranium hexafluoride tails at the plant site; continuously converting uranium hexafluoride tails to uranium oxide (or tetrafluoride) as a potential resource or for disposal; and a combination of both—onsite storage with conversion of uranium hexafluoride at the end of plant life. 56 Fed. Reg. at 23,313.

In 1996, Congress enacted the USEC Privatization Act (42 U.S.C.A. § 2297h-11) ("the Act"). As part of this legislation, Congress provided that the U.S. Secretary of Energy (hereafter, "DOE") "shall accept" depleted uranium for disposal upon the request of "any person licensed by the NRC to operate a uranium enrichment facility... under... the Atomic Energy Act." This provision was enacted for one specific purpose: to mandate that DOE dispose of depleted uranium such as that to be produced by the proposed LES enrichment facility, subject to two specific conditions: (1) the depleted uranium must be "ultimately determined to be low-level radioactive waste" (hereafter, "LLW"), and (2) the generator of the tails must reimburse DOE for the cost of disposal "in an amount equal to the Secretary's costs, including a pro rata share of any capital costs." *See* Section 3113(a)(3).

Because of the directive contained in section 3113, this provision by its terms constitutes a "plausible strategy" for disposing of the depleted uranium tails to be generated by the proposed enrichment facility, as required by the Commission in the initial LES licensing proceeding. In this regard, it is noteworthy that all of the parties to that previous proceeding (including the applicant, the NRC Staff, and intervenor Citizens Against Nuclear Trash ("CANT")), as well as the Licensing Board, ultimately assumed that the applicant's method for disposing of uranium tails would be to transfer the tails produced by the Claiborne Enrichment Center to DOE, and that this could and would occur under the authority of the then-recently enacted USEC Privatization Act. In a 1997 Partial Initial Decision ruling on several contentions, the Licensing Board characterized LES's tails disposal plan as "a plausible strategy for purposes of estimating LES' tails disposal costs." Further, the Board noted that the Act "will most likely dictate the actual LES disposal strategy."[1] Citing hearing testimony from an LES witness and an NRC Staff witness, and statements in the proposed findings of fact of intervenor CANT, the Board concluded: "Thus, even though the USEC Privatization Act... provides LES with the option of using other authorized persons for tails disposal, it is clear, and all parties in the previous proceeding appeared to agree, that the Applicant's actual disposal method will be to transfer the CEC tails to DOE and pay DOE's disposal charges."[2]

Finally, it is noteworthy that in a 1991 SECY paper concerning the disposition of depleted uranium tails, the staff addressed the subject of whether depleted tails constituted low-level waste:

> LLW, which refers to all radioactive waste other than HLW, uranium mill tailings, and TRU waste, constitutes the majority of waste generated by the fuel cycle.... The depleted uranium tails from the enrichment process are different from most LLW, in that they contain

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1 *Louisiana Energy Services*, 5 NRC at 109-110.

2 *Id.*, 45 NRC at 110 (citations omitted), including footnote 7, where the Board acknowledges that the enactment of the Act made "DOE responsible for depleted uranium tails upon the request of the enricher....".

solely the long-lived isotopes of uranium in concentrated form, plus Th-234 and Pa-234. However, in accordance with 10 CFR Parts 40 and 61, *depleted uranium tails from the enrichment process are source material and, if waste, are included within the definition of LLW*, and could be disposed of in a LLW disposal facility licensed under 10 CFR Part 61, if in proper waste form."[3]

RECOMMENDATIONS

For the foregoing reasons, Section 3113 of the USEC Privatization Act constitutes a "plausible strategy" for the treatment of depleted uranium tails generated by a U.S. commercial uranium enrichment facility. On this basis, the Commission's initial hearing order should explicitly reflect the conclusion that this statutory provision constitutes the required "plausible strategy" for disposing of the depleted tails that would be created by a uranium enrichment facility. As a result, no further consideration of this issue would be required by the Licensing Board.

[3] SECY-91-019, "Disposition of Depleted Uranium Tails from Enrichment Plants" (Jan. 25, 1991), pp. 3-4 (emphasis added).