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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	February 7, 2008
Shaw AREVA MOX Services, LLC	)	Docket No. 70-3098
(Mixed Oxide Fuel Fabrication Facility	)	ASLBP No. 07-856-02-MLA-BD01
Possession and Use License)	)	
	)	
	)	

**SHAW AREVA MOX SERVICES LLC's RESPONSE  
TO PETITIONERS' CONTENTION 4 AS REFORMULATED BY THE BOARD**

**I. INTRODUCTION**

In accordance with the Atomic Safety and Licensing Board's ("Board") January 16, 2008 Memorandum and Order (Recasting Contention 4 and Suggesting Certain Discussions) (unpublished)("January 16 Order"), Shaw AREVA MOX Services, LLC ("MOX Services") hereby files its Response to Petitioners'<sup>1</sup> Contention 4 as reformulated by the Board ("Reformulated Contention 4").

As discussed below, MOX Services believes that Reformulated Contention 4, as presented in the Order, requires some modification in order to remain within the metes and bounds of the Board's authority to reformulate contentions. MOX Services would not object to the Board's reformulation of Contention 4, if it were modified to address the two legal issues identified below. Additionally, MOX Services has identified several other corrections and

<sup>1</sup> Petitioners are Nuclear Watch South, Blue Ridge Environmental Defense League, and Nuclear Information and Resource Service.

clarifications for the Board's consideration. Should the Board not adopt the modifications needed to address the two identified legal issues, MOX Services reserves the right to seek Commission review in accordance with applicable regulations.

## **II. THE BOARD'S AUTHORITY TO REFORMULATE CONTENTIONS**

As discussed below, a Board's authority to reformulate contentions is controlled by three basic principles:

First, when a Board wishes to reformulate a contention, a threshold question is "whether the contention is admissible as submitted."<sup>2</sup> See *Andrew Siemaszko*, CLI-06-16, 63 NRC 708, 720 (2006). While a Board has substantial authority to reformulate otherwise admissible contentions, a Board may not redraft an inadmissible contention to cure deficiencies and thereby render it admissible. See *id.* at 720-21 (citing *Ariz. Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991)). The Commission has stated that such an action "would be tantamount to raising a new issue *sua sponte* without the required prior permission from the Commission." CLI-06-16, 63 NRC 721.

Second, after finding that a contention is admissible, a Board may then reformulate the contention "for purposes of clarity, succinctness, and a more efficient proceeding." See *id.* at 720 (citing *Va. Elec. and Power Co.* (North Anna Power Station, Units 1 and 2), LBP-84-40A, 20 NRC 1195, 1199 (1984)(internal quotations omitted)). See also 10 CFR § 2.329(c)(1) (stating that a prehearing conference may be held to consider "simplification, clarification, and specification of the issues").

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<sup>2</sup> The requirements that a contention must meet to be admissible are contained in 10 CFR Part 2, and applicable case law. Admissibility requirements have been extensively addressed in previous submittals in the present proceeding, and are therefore not repeated here.

Third, the Commission expects that a Board will consider matters that have not been put into controversy by the parties *only* where the Board finds that those matters raise serious safety, environmental, or common defense and security issues. *See Duke, Cogema, and Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478, 483 (2001). Moreover, such consideration may be exercised only in extraordinary circumstances, and only if the Commission approves the Board's proposal to do so. *See id.* Similarly, the Commission has found that redrafting a contention to rely on an inferred basis that was not explicitly stated in a Petitioner's contention is beyond the scope of a Board's authority. *See Palo Verde*, CLI-91-12, 34 NRC at 155 (rejecting a Board's application of an inferred basis to a redrafted contention when Petitioners' originally proffered basis did not contain words to that effect).

In summary, when redrafting a proffered contention the Board:

- must, as a threshold question, determine whether the contention is admissible as proffered by the petitioner;
- may not consider matters that were not put into controversy by the parties unless the Board finds that those matters raise serious safety, environmental, or common defense and security issues and receives Commission approval to consider such issues; and
- may reformulate an otherwise admissible contention for purposes of clarity, succinctness, and a more efficient proceeding;

In the following section, MOX Services applies these principles to Reformulated Contention 4.

### **III. ANALYSIS**

#### **A. Admissibility of Petitioners' Original Contention 4**

This Board has found that Contention 4 was admissible as proffered by Petitioners. *See Shaw Areva MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14 (slip op. at 42) (Oct. 31, 2007). In MOX Services' June 13, 2007 Answer and its November 9, 2007 Brief in

Response to Memorandum and Order, MOX Services presented its views regarding the admissibility of Contention 4. MOX Services continues to be of the opinion that Contention 4 as originally proffered by Petitioners was inadmissible, and there is no need to repeat our analysis regarding admissibility here. We therefore turn to the two remaining reformulation principles: (1) whether the contention as reformulated by the Board considers matters that were not put into controversy by the parties, or infers any basis that was not stated in Petitioner's original contention; and (2) whether the Board's reformulation of Contention 4 serves the purposes of clarity, succinctness, and a more efficient proceeding.

**B. Reformulated Contention 4 Introduces Matters Not Put Into Controversy by the Parties**

In two respects it appears that Reformulated Contention 4 encompasses matters that were not put into controversy by the parties. As noted above, the Commission expects that matters within the scope of the proceeding but not put into controversy by the parties will be considered by the Board only where those matters raise serious safety, environmental, or common defense and security issues, and only after the Board has received permission by the Commission to consider such matters. The two aspects of Reformulated Contention 4 that appear to violate this exclusionary principle are discussed below as Legal Issues 1 and 2.

To facilitate review, the full text of Petitioners' original Contention 4 and Reformulated Contention 4 are provided in Attachment 1. Attachment 2 provides a "redlined" version of the Reformulated Contention 4 incorporating MOX Services' proposed changes to resolve the issues discussed below.

*Legal Issue 1: The Board may not expand the scope of Contention 4 from “liquid high alpha waste” to include any other “waste”*

In reformulating Petitioners’ Contention 4, the Board appears to have expanded the scope of the Contention beyond that originally stated by Petitioners. Petitioners’ original Contention 4<sup>3</sup> stated, in pertinent part:

The license application for the proposed plutonium fuel facility is inadequate because it does not address safety and public health risks posed by indefinite storage of *liquid high-alpha waste* at the site or contain measures for the safe storage of that waste.

Petition at 23 (emphasis added).

The plain text of Petitioners’ Contention 4 clearly shows that Petitioners intended the scope of the Contention to be limited to the safety and public health risks and associated measures for safe storage of *liquid high-alpha waste*. However, Reformulated Contention 4 introduces an ambiguity as to the nature of the waste of concern when it states:

The License Application and Integrated Safety Analysis Summary (ISA Summary) for the proposed mixed oxide fuel fabrication facility (MOX FFF) are inadequate because they do not address safety and public health risks posed by an inability to transfer *waste* from the facility, resulting in the need to forego receipt of radioactive materials and/or to safely shut down the facility and to store liquid high-alpha waste at the site for an extended period of time.

January 16 Order at 5 (emphasis added).

Reformulated Contention 4 eliminates the modifier “liquid high-alpha” before the first and certain other uses of the term “waste,” and therefore could be construed as encompassing waste other than liquid high-alpha waste.<sup>4</sup> Such an interpretation would constitute an impermissible consideration of issues not placed in controversy by the parties, and would exceed the Board’s reframing authority.

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<sup>3</sup> Petitioners’ filed the original formulation of Contention 4 on May 14, 2007.

<sup>4</sup> MOX Services recognizes that the omission of “liquid high-alpha” may have been a drafting oversight, and that the Board may not have intended to broaden the scope of the Contention.

Based on the above, MOX Services respectfully requests that Reformulated Contention 4 be modified to clearly limit its scope to “liquid high-alpha waste.”

*Legal Issue 2: The Board may not expand the scope of Contention 4 to include interruptions in high-alpha waste receipt by the Department of Energy (DOE) that are caused by circumstances within the Mixed Oxide Fuel Fabrication Facility (MFFF)*

Reformulated Contention 4 appears to expand the scope of Petitioners’ Contention to include interruptions in liquid high-alpha waste transfer caused by circumstances *within* the MFFF. Petitioners’ original Contention 4 stated, in pertinent part:

...there is no indication in MOX Service’s Summary of its Integrated Safety Assessment (“ISA Summary”) (Chapter 5 of the license application) that MOX Services has performed an analysis of the possibility of unplanned interruptions in the receipt of high-alpha liquid waste *by the DOE*.

Petition at 23 (emphasis added).

As part of their basis, Petitioners relied on the February 24, 2005 letter from Graham B. Wallis (Chairman of the Advisory Committee on Reactor Safeguards), to the Chairman of the Commission. The letter stated, in pertinent part:

[MFFF] will return waste to [DOE]. *The facility to receive this waste at the Savannah River site has not been designed, nor have the waste acceptance criteria been established.* This raises the possibility that additional unit operations will have to be added to [MFFF]. Perhaps of more importance, the possibility of unplanned interruptions in *waste receipt by [DOE]* needs to be considered in the integrated safety analysis of the [MFFF] design.

Letter, from Graham B. Wallis, Chairman of the Advisory Committee on Reactor Safeguards, to Nils J. Diaz, Chairman, Nuclear Regulatory Commission, *Review of the Final Safety Evaluation Report for the Mixed Oxide Fuel Fabrication Facility Construction Authorization Request*, dated February 24, 2005 (“ACRS Letter”)(emphasis added). It is clear that the facility referenced in the ACRS Letter was the Waste Solidification Building (WSB), a DOE facility which is outside of the MFFF and beyond the Nuclear Regulatory Commission’s jurisdiction.

However, Reformulated Contention 4 states, in pertinent part:

... the License Application does not address the safety issues associated with waste aging within the facility given protracted onsite storage that might be occasioned by a delay in waste transfer operations caused by circumstances *either within* or outside the facility boundary.

January 16 Order at 5 (emphasis added). Based on the original text of Petitioners' Contention 4 and the ACRS Letter, it is clear that Petitioners did not place into controversy any unplanned interruptions of waste transfer arising from conditions "within" the facility (*i.e.* the MFFF) boundary. Instead, Petitioners' Contention 4 was specifically focused on unplanned interruptions outside of the MFFF, that is, DOE's receipt of liquid high-alpha waste.

Based on the above, the expansion of the scope of Contention 4 to include unplanned interruptions "either within or outside the facility boundary" is an impermissible broadening of the scope of Petitioners' Contention 4, and Reformulated Contention 4 should be narrowed to the scope originally posed by Petitioners.

### **C. Corrections and Clarifications**

In addition to the above two legal issues, MOX Services proposes the following four corrections and clarifications to Reformulated Contention 4.

First, Reformulated Contention 4 states that an interruption of waste transfer from the facility (MFFF) can result "in the need to forego receipt of radioactive materials and/or to safely shut down the facility." *Id.* at 5. Other measures short of foregoing receipt of radioactive materials or facility shutdown also could ameliorate a temporary interruption of liquid high-alpha waste receipt by DOE. Therefore, MOX Services suggests that the phrase be changed to:

"..in the need to forego receipt of radioactive materials, safely shut down the facility, or take other appropriate measures."

Second, Reformulated Contention 4 contains the following citation:

See NUREG-1821 (MOX FFF Construction Authorization Request FSER), § 11.2.1.3.11, p. 11-48 in which the NRC

Staff required that actual setpoints would be provided in the License Application.

MOX Services notes that the referenced statement in the FSER represents an NRC Staff expectation regarding the content of the License Application, rather than a requirement.

Commission requirements are imposed by regulation, order, or license condition,<sup>5</sup> but not an NRC Staff SER. Therefore, MOX Services suggests that the Reformulated Contention 4 be revised, in pertinent part, as follows:

See NUREG-1821 (MOX FFF Construction Authorization Request FSER), § 11.2.1.3.11, p. 11-48 in which the NRC Staff stated its expectation that actual setpoints would be provided in the License Application.

Third, Reformulated Contention 4 seems to presuppose “protracted onsite storage” of liquid high-alpha waste as a “given” when it states, in pertinent part:

Additionally, the License Application does not address the safety issues associated with waste aging within the facility *given* protracted onsite storage that might be occasioned by a delay in waste transfer operations caused by circumstances either within or outside the facility boundary.

In contrast, Petitioners’ original contention concerned the “*possibility*” of unplanned interruptions in the transfer of liquid high-alpha waste from the MFFF. Similarly, the ACRS Letter cited by Petitioners refers to the “possibility” of additional storage at the MFFF for liquid high-alpha waste. MOX Services suggests replacing the word “given” with the term “due to possible” in order to avoid any ambiguity regarding the Board’s intent.

Finally, Reformulated Contention 4 contains the statement:

This would entail including in the ISA Summary procedures for the identification and mitigation of any hazards posed by aging wastes over short, intermediate, and long duration timeframes.

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<sup>5</sup> See 10 CFR § 2.201(a) (providing for notices of violation for failure to conform to the requirements of “the [Atomic Energy] Act or, [NRC regulations] or the conditions of a license or an order issued by the Commission”).

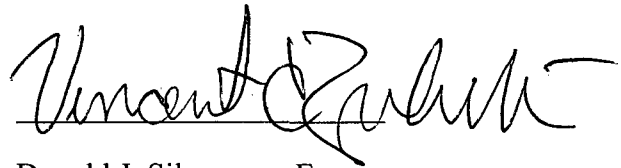


MOX Services suggests replacing the phrase “procedures for the identification and mitigation” with “analyses,” since the ISA Summary provides a summary of safety analyses performed, but does not set forth procedural requirements.

**IV. CONCLUSION**

For the reasons set forth above, MOX Services respectfully requests that Reformulated Contention 4 be modified to address the concerns described above, consistent with Attachment 2.

Respectfully submitted,



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**Attachment 1: Original and Reformulated Contention 4**

<u>Petitioners' Original Contention 4</u>	<u>Board's Reformulated Contention 4</u>
<p>The license application for the proposed plutonium fuel facility is inadequate because it does not address safety and public health risks posed by indefinite storage of liquid high-alpha waste at the site or contain measures for the safe storage of that waste. <b>Basis:</b> Petitioners rely on the basis of Contention 3 above for this contention. In addition, they state that there is no indication in MOX Service's Summary of its Integrated Safety Assessment ("ISA Summary") (Chapter 5 of the license application) that MOX Services has performed an analysis of the possibility of unplanned interruptions in the receipt of high-alpha liquid waste by the DOE. See Letter from Graham B. Wallis to Nils J. Diaz, re: Review of the Final Safety Evaluation Report for the Mixed Oxide Fuel Fabrication Facility Construction Authorization Request (February 24, 2005). There is also no indication in the ISA Summary that MOX Services will "conduct operations at [the MOX plutonium facility] in a way that assures there is always sufficient waste storage capacity to bring the facility to a safe configuration in the event that waste receipt is interrupted." <i>Id.</i></p> <p><i>Shaw AREVA MOX Services (License Application for Possession and Use of Byproduct, Source and Special Nuclear Materials for the Mixed Oxide Fuel Fabrication Facility), Petition for Intervention and Request For Hearing (May 14, 2007) at 23.</i></p>	<p>The License Application and Integrated Safety Analysis Summary (ISA Summary) for the proposed mixed oxide fuel fabrication facility (MOX FFF) are inadequate because they do not address safety and public health risks posed by an inability to transfer waste from the facility, resulting in the need to forego receipt of radioactive materials and/or to safely shut down the facility and to store liquid high-alpha waste at the site for an extended period of time. The MOX FFF License Application does not assure that there is always sufficient waste storage capacity to bring the facility to a safe configuration in the event that waste transfer is interrupted, in that it fails to describe how active waste generating operations would be terminated or curtailed before the waste storage capacity exceeds design limits, allowing for any backlog of waste in the facility. See NUREG-1821 (MOX FFF Construction Authorization Request FSER), § 11.2.1.3.11, p. 11-48 in which the NRC Staff required that actual setpoints would be provided in the License Application. This requires that a detailed evaluation be performed and coordinated with the ISA Summary. Additionally, the License Application does not address the safety issues associated with waste aging within the facility given protracted onsite storage that might be occasioned by a delay in waste transfer operations caused by circumstances either within or outside the facility boundary. This would entail including in the ISA Summary procedures for the identification and mitigation of any hazards posed by aging wastes over short, intermediate, and long duration timeframes. See Letter from Graham B. Wallis [ACRS], to Nils J. Diaz, Review of the Final Safety Evaluation Report for the Mixed Oxide Fuel Fabrication Facility Construction Authorization Request (Feb. 24, 2005).</p> <p>January 16 Order at 5.</p>

## Attachment 2: Redline of Reformulated Contention 4

The following provides MOX Services' recommended changes to the Board's reformulated

Contention 4. Deletions are indicated by ~~striketrough~~ font, and additions are indicated by **bold** font.

The License Application and Integrated Safety Analysis Summary (ISA Summary) for the proposed mixed oxide fuel fabrication facility (MOX FFF) are inadequate because they do not address safety and public health risks posed by an inability to transfer **liquid high-alpha** waste from the facility, resulting in the need to forego receipt of radioactive materials, ~~and/or to safely shut down the facility~~ **or take other appropriate measures**, and to store liquid high-alpha waste at the site for an extended period of time. The MOX FFF License Application does not assure that there is always sufficient **liquid high-alpha** waste storage capacity to bring the facility to a safe configuration in the event that **liquid high-alpha** waste ~~transfer~~ **receipt by DOE** is interrupted, in that it fails to describe how active waste generating operations would be terminated or curtailed before the **liquid high-alpha** waste storage capacity exceeds design limits, allowing for any backlog of **such** waste in the facility. See NUREG-1821 (MOX FFF Construction Authorization Request FSER), § 11.2.1.3.11, p. 11-48 in which the NRC Staff ~~required~~ **stated its expectation** that actual setpoints would be provided in the License Application. ~~This requires that a detailed evaluation be performed and coordinated with the ISA Summary.~~ Additionally, the License Application does not address the safety issues associated with **liquid high-alpha** waste aging within the facility ~~given due to possible~~ **protracted onsite storage that might be occasioned by a delay in liquid high-alpha waste transfer operations caused by an unplanned interruption in the receipt of liquid high-alpha liquid waste by DOE** ~~circumstances either within or outside the facility boundary.~~ This would entail including in the ISA Summary ~~procedures for the identification and mitigation of any analyses~~ **of hazards posed by aging liquid high-alpha wastes over short, intermediate, and long duration timeframes.** See Letter from Graham B. Wallis [ACRS], to Nils J. Diaz, Review of the Final Safety Evaluation Report for the Mixed Oxide Fuel Fabrication Facility Construction Authorization Request (Feb. 24, 2005).

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

THE ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:  
Michael C. Farrar, Chairman  
Lawrence G. McDade  
Dr. Nicholas G. Trikouros

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**CERTIFICATE OF SERVICE**

I hereby certify that copies of Shaw AREVA MOX Services LLC's Response to Petitioners' Contention 4 as Reformulated by the Board were served upon the persons listed below, by e-mail and first class mail, this 7th of February, 2008.

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