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**DESIGNATED NON-PROPRIETARY  
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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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USNRC

ATOMIC SAFETY AND LICENSING BOARD

June 24, 2003 (10:35AM)

Before Administrative Judges:  
Thomas S. Moore, Chairman  
Charles N. Kelber  
Peter S. Lam

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

In the Matter of	)	
	)	
DUKE COGEMA STONE & WEBSTER	)	Docket No. 0-70-03098-ML
	)	
(Savannah River Mixed Oxide Fuel	)	ASLBP No. 01-790-01-ML
Fabrication Facility)	)	
	)	

**GEORGIANS AGAINST NUCLEAR ENERGY  
OPPOSITION TO DUKE COGEMA STONE & WEBSTER'S  
MOTION FOR SUMMARY DISPOSITION OF  
GANE CONTENTIONS 1 AND 2**

**I. INTRODUCTION AND NON-PROPRIETARY SUMMARY**

Georgians Against Nuclear Energy ("GANE") hereby responds to Duke Cogema Stone & Webster's Motion for Summary Disposition on Contentions 1 and 2 (May 9, 2003) (hereinafter "DCS Motion"). DCS's motion is based on new information, submitted after the filing of the original Construction Authorization Request ("CAR"), with which DCS now claims to have satisfied the concerns raised by the contentions.

As demonstrated below, the motion should be denied, on several grounds. First, with respect to Contention 2, the motion must be denied or postponed as a matter of law,

because the NRC Staff has made no safety finding on the adequacy of the design for physical security at the proposed MOX Facility. Second, with respect to Contention 1, the motion should be denied or postponed, because GANE has been unable to conduct discovery against the NRC Staff regarding its safety review of material control and accounting ("MC&A") features of the proposed MOX Facility design. Without having some understanding of the nature, completeness and quality of Staff's safety review, the Atomic Safety and Licensing Board ("ASLB") is not in a position to make the safety findings necessary for resolution of the dispute between GANE and DCS regarding the completeness of the MOX Facility design.

GANE's opposition to DCS's summary disposition motion is supported by the attached documents:

- GANE's Statement of Material Facts As to Which There is a Genuine Dispute Regarding Contention 1, MC&A Design Issues (attached as Exhibit 1);
- GANE's Statement of Material Facts as to Which There is a Genuine Dispute Regarding GANE Contention 2 (Physical Security) (attached as Exhibit 2);
- Declaration of Dr. Edwin S. Lyman Regarding GANE Contention 1 (Material Control and Accounting) (June 5, 2003) (hereinafter "Lyman Dec. Cont. 1") (attached as Exhibit 3);
- Declaration of Dr. Edwin S. Lyman Regarding GANE Contention 2 (Physical Security) (June 5, 2003) "Lyman Dec. Cont. 2") (attached as Exhibit 4).

## **II. FACTUAL AND PROCEDURAL BACKGROUND**

On February 28, 2001, DCS submitted a Construction Authorization Request ("CAR"), seeking approval to build a facility for the processing of weapons-grade plutonium into nuclear power plant fuel, known as Mixed Oxide or "MOX" fuel. Letter from Peter S. Hastings to William F. Kane, enclosing application for authorization of

construction of Mixed Oxide Fuel Facility. In Section 13, the CAR devoted a little more than one page to the two "safeguards" issues of MC&A and physical security.<sup>1</sup>

On April 18, 2001, the NRC subsequently published a notice of an opportunity for a hearing in the Federal Register. Notice of Opportunity for Hearing on an Application for Authority to Construct a Mixed Oxide Fuel Fabrication Facility, 66 Fed. Reg. 19,994.

GANE petitioned to intervene, and filed a set of contentions on August 13, 2001. Georgians Against Nuclear Energy's Contentions Opposing a License for Duke Cogema Stone & Webster to Construct a Plutonium Fuel Factory at Savannah River Site (August 13, 2001) (hereinafter "GANE's Contentions"). GANE's contentions included Contention 1 (Lack of Consideration of Safeguards in Facility Design) and Contention 2 (Lack of Consideration of Physical Protection in Facility Design). Contention 1 asserted that:

The DCS Construction Authorization Request (CAR) does not contain detailed information on MFFF design features relevant to the ability of DCS to implement material control and accounting (MC&A) measures capable of meeting or exceeding the regulatory requirements of 10 CFR Part 74, and there is no indication that MC&A considerations were taken into account in the MFFF design. As a result, the CAR does not provide a basis for NRC to "establish that the applicant's design basis for MC&A and related commitments will lead to an FNMCP (Fundamental Nuclear Material Control Plan) that will meet or exceed the regulatory acceptance criteria in Section 13.2.4 [of the MFFF Standard Review Plan (SRP)]," SRP at 13.2.5.2A. Failure to adequately consider MP&A [*sic*] issues during the MFFF design phase not only exhibits poor engineering practice but also greatly increases the probability that DCS will not be able to operate the MFFF in compliance with 10 CFR Part 74 without significant retrofitting (and may not be able to even with retrofitting), and thus that NRC ultimately will deny DCS a license to possess and use SNM at the MFFF. Consequently, Chapter 13.2 of the CAR in its current form is grossly inadequate and should be rejected.

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<sup>1</sup> A copy of Section 13 of the original CAR is attached as Exhibit 5.

GANE's Contentions at 2-9. Contention 2 asserted that:

The DCS Construction Authorization Request (CAR) does not contain detailed information on MFFF design features relevant to the ability of DCS to implement physical protection measures capable of meeting or exceeding the regulatory requirements of 10 CFR Part 73, and there is no indication that physical protection considerations were taken into account in the MFFF design. As a result, the CAR does not provide a basis for NRC to "establish that the applicant's proposed design, location, construction technique and material for elements of the physical protection system and related commitments will lead to a physical protection plan that will meet or exceed the regulatory acceptance criteria in Section 13.1.4 [of the MFFF Standard Review Plan (SRP)]." SRP, § 13.1.5.2A.

Failure to adequately consider physical protection issues during the MFFF design phase not only exhibits poor engineering practice but also greatly increases the probability that DCS will not be able to operate the MFFF in compliance with 10 CFR Part 73 without significant retrofitting (and may not be able to even with retrofitting), and thus that NRC ultimately will deny DCS a license to possess and use SNM at the MFFF. Consequently, Chapter 13.1 of the CAR in its current form is grossly inadequate and should be rejected.

GANE's Contentions at 10-13. The ASLB admitted Contentions 1 and 2, along with a number of other contentions, in LBP-01-35, 42 NRC 403, 425 (2001).

In April of 2002, the NRC Staff issued a Draft Safety Evaluation Report for the construction of the proposed MOX Facility. Draft Safety Evaluation Report on the Construction Authorization Request for the Mixed Oxide Fuel Fabrication Facility, Docket No. 70-3098 (April 30, 2002) (hereinafter "2002 Draft SER"). In Section 13, the Staff reported on its review of the CAR Authorization Request.<sup>2</sup> With respect to MC&A, the Staff reported its conclusion that "the applicant meets the requirements in the area of MC&A to approve construction of the facility under 10 CFR Part 70." *Id.* at 13.2. With respect to physical security, the Staff held off on any approval of the proposed design of the MOX Facility with respect to physical security, on the ground that:

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<sup>2</sup> A copy of Section 13 of the 2002 Draft SER is attached as Exhibit 6.

NRC is conducting a comprehensive review of safeguards programs and design basis threats as a result [of] the September 11, 2001 events. When the review is completed, a determination will be made with respect to the effect on the MFFF design.

*Id.* at 13.1-1.

By letter dated October 31, 2002, DCS submitted a revised version of the CAR. Letter from Robert H. Inde to NRC Document Control Desk, re: Revised Request for Authorization of Construction of DCS Mixed Oxide Fuel Fabrication Facility (hereinafter "Revised CAR"). The Revised CAR included proprietary information regarding MC&A and physical security-related design features that had been added since preparation of the original CAR.

In April of 2003, the NRC Staff issued a revised version of the 2002 Draft Safety Evaluation Report. Draft Safety Evaluation Report on the Construction Authorization Request for the Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, South Carolina, Revision 1, Docket No. 70-3098 (April 30, 2003) (hereinafter "2003 Revised Draft SER"). In Section 13.2, the NRC addressed the adequacy of the Revised CAR with respect to MC&A, and concluded that "at the construction authorization approval stage, MC&A issues have been adequately addressed." *Id.* at 13.2-2. In Section 13.1, the NRC Staff once again postponed a finding of adequacy of the MOX Facility Design with respect to physical security, stating that:

The Nuclear Regulatory Commission (NRC) is conducting a comprehensive review of safeguards programs and design basis threats as a result of the September 11, 2001 events. When this review is completed, a determination will be made with respect to the effect on the Mixed Oxide Fuel Facility design.

*Id.* at 13.1-1.<sup>3</sup>

### III. STANDARD FOR SUMMARY DISPOSITION

Pursuant to NRC regulations at 10 C.F.R. § 2.740, a party is entitled to summary disposition if “there is no genuine issue as to any material fact” and the party “is entitled to a decision as a matter of law.” The burden of proving entitlement to summary disposition is on the movant. *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993). Because the burden of proof is on the proponent, “the evidence submitted must be construed in favor of the party in opposition thereto, who receives the benefit of any favorable inference that can be drawn.” *Sequoyah Fuels Corp. and General Atomics Corp.* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-17, 39 NRC 359, 361, *aff’d*, CLI-94-11, 40 NRC 55 (1994). If there is any possibility that a litigable issue of fact exists or any doubt as to whether the parties should be permitted or required to proceed further, the motion must be denied. *General Electric Co.* (GE Morris Operation Spent Fuel Storage Facility), LBP-82-14, 15 NRC 530, 532 (1982).

Moreover, where significant health and safety environmental issues are involved, a licensing board should only grant a motion for summary disposition “if it is convinced from the material filed that the public health and safety or the environment (as applicable) will be satisfactorily protected.” *Cincinnati Gas & Electric Co.* (William H. Zimmer Nuclear Station), LBP-81-2, 13 NRC 36, 40-41 (1981) (hereinafter “*Zimmer*”), citing

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<sup>3</sup> A copy of Section 13 of the 2003 Revised Draft SER is attached as Exhibit 7.

*Cleveland Electric Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753-54 (1977); 10 C.F.R. § 2.760a.<sup>4</sup>

In resolving disputed safety issues, the ASLB must, as a practical matter, rely on the NRC Staff's safety review. *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 56 (1985) (hereinafter "*Waterford*"). Where the Staff's review is unavailable or incomplete, the ASLB must dismiss or postpone resolution of a motion for summary disposition. *Duke Power Co.* William B. McGuire Nuclear Station, Units 1 and 2), LBP-77-20, 5 NRC 680, 681 (1977) (hereinafter "*McGuire*").

Finally, summary disposition may be denied or continued if the opposing party demonstrates in its affidavits that it cannot present facts essential to justify its opposition. 10 C.F.R. § 2.749(c). Summary disposition may be denied if a party can show that discovery is necessary and likely to produce evidence supporting the existence of a genuine issue of material fact. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-11, 23 NRC 577, 582 (1986) (hereinafter "*Shoreham*").

**IV. DCS'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 2 MUST BE DENIED OR POSTPONED AS A MATTER OF LAW, BECAUSE THE NRC STAFF HAS NOT YET MADE A SAFETY FINDING REGARDING THE COMPLETENESS OR ADEQUACY OF THE REVISED CAR WITH RESPECT TO PHYSICAL SECURITY.**

As discussed above in Section III, before granting summary disposition, the ASLB must be satisfied the public health and safety will be protected. *Zimmer*, 13 NRC at 40-41. Moreover, in resolving summary disposition disputes and addressing the safety

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<sup>4</sup> Although the CAR approval proceeding is not an "operating license proceeding" like the *Zimmer* proceeding, the principle set forth in *Zimmer* is equally applicable here.

issues they raise, the ASLB must, as a practical matter, rely on the safety review by the NRC Staff. *Waterford*, 22 NRC at 56. Where the Staff's review is unavailable or incomplete, the ASLB must dismiss or postpone resolution of a motion for summary disposition. *McGuire*, 5 NRC at 681.

Here, the NRC Staff has not made a safety finding regarding the adequacy of DCS's proposed design with respect to physical security. As discussed above in Section II, the Staff has postponed making such a finding until after the Design Basis Threat ("DBT") has been revised.<sup>5</sup> Without knowing what the DBT is, there is no way for the Staff to evaluate the issue that is in dispute between GANE and DCS: whether the security-related design information submitted by DCS is complete enough to permit a safety finding under 10 C.F.R. § 70.23(b). Under the circumstances, the ASLB must deny DCS's summary disposition motion, or postpone resolution of the motion until the Staff makes its safety finding.

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<sup>5</sup> By orders dated April 29, 2003, the NRC ordered the modification of two Category 1 fuel cycle facilities in Virginia and Tennessee that possess enriched uranium used in nuclear reactors. See NRC Press Release: "NRC Approves Changes to the Design Basis Threat and Issues Order for Category 1 Fuel Cycle Facilities" (April 29, 2003). On the same day, the NRC also ordered revisions to the DBT for all operating nuclear power plants. See NRC Press Release: "NRC Approves Changes to the Design Basis Threat and Issues Orders for Nuclear Power Plants to Further Enhance Security" (April 29, 2003). It does not appear that the NRC has issued any similar order to DCS. It is reasonable, however, to anticipate that such an order is forthcoming. Lyman Dec. Cont. 2, par. 11.



**V. DCS'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 1 SHOULD BE DENIED OR POSTPONED AS A MATTER OF LAW, BECAUSE GANE HAS NOT YET BEEN ABLE TO CONDUCT DISCOVERY THAT IS LIKELY TO PRODUCE EVIDENCE SUPPORTING THE EXISTENCE OF A GENUINE ISSUE OF MATERIAL FACT.**

Pursuant to 10 C.F.R. § 2.749(c), summary disposition may be denied or continued if the opposing party demonstrates in its affidavits that it cannot present facts essential to justify its opposition. The opposing party must show, in an affidavit, that discovery is necessary and likely to produce evidence supporting the existence of a genuine issue of material fact. *Shoreham*, 23 NRC at 582.

As discussed above in Sections III and IV, summary disposition may not be granted in the absence of safety findings by the NRC Staff. While the adequacy of the Staff's review may not be the subject of a contention, the ASLB must, as a practical matter, rely on the Staff's review to some extent. Therefore, the nature, completeness and quality of the Staff's review is a relevant consideration.

Both Contentions 1 and 2 assert that there is "no indication" that MC&A and physical security-related considerations were taken into account in the design for the proposed MOX Facility. GANE's Contentions at 3, 10. DCS now asserts that it did take MC&A and physical security into account in the MOX design.

In order to resolve the dispute between GANE and dispute regarding this issue, the ASLB must consider the Staff's views on whether the design information provided by DCS to be complete or detailed enough to allow a safety finding under 10 C.F.R. § 70.23(b). In weighing the Staff's opinion, it is relevant for the ASLB to consider

whether and to what extent the Staff actually took MC&A and physical security considerations into account in evaluating the MOX Facility design. The record of the Staff's safety review, however, is so confusing and apparently contradictory, that representations by the Staff regarding the nature, completeness and quality of its review should not be accepted until GANE has had an opportunity to question the Staff in discovery. By order of the Commission, that opportunity will not occur until after issuance of the Final SER and the Final Environmental Impact Statement. *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-13, 53 NRC 478, 481 (2001).

A review of the record of the Staff's safety review raises significant questions about what were the bases for the Staff's 2002 and 2003 MC&A design safety reviews, and what MC&A design information the Staff actually took into account in conducting its reviews. In the 2002 Draft SER, the Staff claims to have reviewed the CAR in order to determine whether "the application for construction approval adequately provides the necessary aspects on the basis of material control and accounting (MC&A) design information." The Staff purports to have based this review on the CAR, and does not reference any other documents submitted by DCS.<sup>6</sup> *Id.* 2002 Draft SER at 13.2-1, Exhibit 5. The Draft SER states that the Staff reviewed the following "physical aspects of the MC&A design:"

- Process Monitoring
- Item Monitoring

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<sup>6</sup> In contrast, for example, in the discussion on physical security issues (Section 13.1), the 2002 SER references both the CAR and a March 8, 2002, letter from the Applicant to the NRC. *Id.* at 13.1-1.

- Receipt Measurement
- Measurement Control
- Physical Inventory
- International Safeguards

*Id.* The Draft SER also discusses physical features of the proposed MOX Facility with respect to each of the bulleted topics. Yet, a review of Section 13.2 of the CAR, in which DCS addresses MC&A issues, does not yield any design information on these bulleted topics. The only information provided in Section 13.2 of the CAR is a list of commitments to provide information in the future. *See* Exhibit 5.

In Section 13.2 of the 2003 Revised SER, the Staff reaches essentially the same conclusions that it reached in the 2002 design safety review, based on MC&A design information in the Revised CAR. This raises the significant question of how the NRC could come up with virtually the same safety finding for a review that is based on actual design information and a review that is based on no design information. Subsidiary questions would include:

1. What was the basis of the NRC Staff's MC&A design review in 2002? How did the basis of the MC&A design review change between 2002 and 2003?
2. If the original CAR contained only commitments to provide an MC&A program, on what basis did the NRC Staff find that the MC&A design was adequate?
3. What are the NRC Staff's criteria for evaluating the completeness of the MC&A design? What are the NRC Staff's standard for evaluating the adequacy of the MC&A design?

4. To what extent did the NRC Staff review any new MC&A design information submitted in the revised CAR? Did the NRC Staff consider the new information to be essential to its review? Was it considered? *See Lyman Dec. Cont. 1, par. 23.*

Resolution of these questions is necessary in order to determine the extent to which the ASLB can depend on the Staff's safety review in order to resolve the disputed between GANE and DCS regarding the completeness of design details for MC&A at the proposed MOX Facility. If the Staff only gave superficial consideration to MC&A design issues in its safety review, then the ASLB would not have an adequate safety basis on which to grant summary disposition. Therefore, the ASLB should deny DCS's Motion, or postpone its resolution until discovery is complete.

**VI. DCS'S MOTION FOR SUMMARY DISPOSITION MUST BE DENIED BECAUSE IT HAS FAILED TO DEMONSTRATE THAT THERE IS NO GENUINE AND MATERIAL DISPUTED ISSUE OF FACT WITH RESPECT TO THE COMPLETENESS OF DESIGN INFORMATION ON MC&A AND SECURITY ISSUES.**

As demonstrated above, given the lack of an NRC Staff safety finding on the adequacy of the MOX Facility design for physical security, and given the need for discovery against the Staff regarding its safety review on MC&A design issues, DCS's Motion for Summary Disposition Should be denied or postponed. Even if the ASLB denies the relief requested in Sections IV and V, however, DCS's Motion should nevertheless be denied, because it fails to demonstrate that there is no genuine issue of material fact in dispute regarding Contentions 1 and 2.

**A. DCS's Motion Relies on a Faulty Characterization of the Scope of Contentions 1 and 2.**

DCS's bid for summary disposition of Contentions 1 and 2 is premised on a faulty characterization of the scope of Contention 1 and 2. DCS attempts to characterize the subjects of Contentions 1 and 2 as the complete absence of MC&A and physical security-related design basis information in the CAR. DCS Motion at 9. DCS also argues that as a matter of law, it need submit only "design bases," and not other design-related information. DCS then claims that by submitting some information regarding the design bases for MC&A and physical security, it has mooted the contentions. DCS Motion at 6. DCS's motion is based on a distorted and overly narrow interpretation of Contentions 1 and 2.

- 1. Contentions 1 and 2 are not limited to the assertion that DCS has completely failed to submit any MC&A and security-related design information.**

DCS argues that "the only matter that can legitimately be in dispute is whether DCS has included MC&A and physical protection design bases in the CAR." DCS Motion at 11 (emphasis in original). Thus, according to DCS's reasoning, any information it submits regarding the MC&A and physical security design bases for the MOX Facility – even if it amounts to a single sentence -- is sufficient to moot Contentions 1 and 2.

Contrary to DCS's argument, the contentions are not limited to the assertion that DCS has completely failed to submit any information regarding the proposed MOX design. Rather, the contentions plainly assert that DCS has failed to submit a sufficient amount of detail regarding the design for MC&A and physical security to allow the NRC to make a determination of compliance with NRC regulations and regulatory guidance.

Contention 1, for instance, asserts that as a result of DCS's failure to provide detailed information on design features related to MC&A, the CAR "does not provide a basis for NRC to 'establish that the applicant's design basis for MC&A and related commitments will lead to an FNMCP (Fundamental Nuclear Material Control Plan) that will meet or exceed the regulatory acceptance criteria in Section 13.2.4 [of the MFFF Standard Review Plan (SRP)].'" GANE's Contentions at 3, citing SRP at 13.2.5.2A. The basis statement further asserts that:

[D]esign of a facility without appropriate attention to safeguards issues may lead to choices that do not allow safeguards measures to be applied with a level of effectiveness adequate to meet applicable regulations. *Therefore, a reasonably complete description of the safeguards approach for the facility must be submitted to the relevant safeguards authorities (in this case, NRC) at the design stage.*

*Id.* at 4 (emphasis added). The basis statement also provides a detailed description of the type and extent of MC&A-related information that is necessary to demonstrate an adequate design:

[A]t a minimum, the MC&A design basis must include a detailed description of how holdup accumulation (1) can be effectively managed through choices for design elements such as process equipment materials and geometries, glovebox ventilation systems and dust collection systems; and (2) can be measured with NDA systems to the degree of accuracy necessary to meet 10 CFR Part 74 requirements. It should be noted that the MFFF SRP recommends that the applicant demonstrate that the material transport system piping "is designed to minimize entrapment and buildup of solids in the system" (SRP at 11.4.7.2H), and that NRC staff have pointed out the absence of such a demonstration in the CAR (CAR RAI at 188).

*Id.* at 7. Moreover, the contention also criticizes that CAR for failing to include any information about the performance of the MC&A systems at the MELOX plant, and for failing to provide information about system design throughput. 7-9. Thus, Contention 1

can hardly be characterized as a simple complaint that the MOX Facility contains no design information whatsoever.

Similarly, Contention 2 asserts that as a result of the lack of detailed information in the CAR regarding the design for physical security, the CAR:

does not provide a basis for NRC to 'establish that the applicant's proposed design, location, construction technique and material for elements of the physical protection system and related commitments will lead to a physical protection plan that will meet or exceed the regulatory acceptance criteria in Section 13.1.4 [of the MFFF Standard Review Plan (SRP)].'

GANE's Contentions at 10, citing SRP, § 13.1.5.2A. In the basis statement, Contention 2 also cites guidance by the International Atomic Energy Agency ("IAEA") that conflicts between safety and security should be addressed in the physical design, as well as NRC guidance for the construction authorization review of the proposed MOX Facility, which advises that:

The primary reviewer should establish that the applicant's proposed design, location, construction technique and material for elements of the physical protection system and related commitments will lead to a physical protection plan that will meet or exceed the regulatory acceptance criteria in Section 13.1.4.

*Id.* at 4-5, citing NUREG-1718, Standard Review Plan for Review of an Application for a Mixed Oxide Fuel Fabrication Facility, § 13.1.5.2A, p. 13.1-17 (2000). Like Contention 1, Contention 2 cannot fairly be characterized as a simple complaint about the complete lack of security-related design information in the CAR. The contention calls for design information that is complete enough to permit a review by the NRC.

In making its arguments, DCS attempts to confuse the concepts of completeness and adequacy. DCS Motion at 9 and footnote 25. In GANE's view, the concepts are distinct. GANE has challenged the completeness of DCS's design information to allow a

thorough NRC staff review of the adequacy of DCS's application to satisfy NRC requirements for adequate MC&A and physical security designs. GANE has not challenged the adequacy of DCS's proposed design to satisfy NRC safety requirements. GANE leaves that task to the NRC Staff.<sup>7</sup>

Thus, by asserting that the sole subject of Contentions 1 and 2 is the complete absence of any design information related to MC&A and physical security, DCS grossly mischaracterizes the scope of the contentions. Contentions 1 and 2 seek a level of detail in the CAR that is sufficient to allow the NRC to evaluate the adequacy of the design under NRC regulations and regulatory guidance. As demonstrated in the attached declarations by GANE's expert, Dr. Lyman, and as discussed below in Section VI.B, DCS has not provided that level of detail.<sup>8</sup>

**2. The scope of Contentions 1 and 2 does not exclude design features or design details.**

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<sup>7</sup> GANE agrees with DCS's suggestion in footnote 25 that if GANE wished to challenge the adequacy of DCS's new design information to satisfy NRC regulations, it would have had to file a new contention following DCS's submission of the information. However, GANE seeks to challenge the completeness of the information, not its adequacy. The question of completeness is covered by the existing contentions.

<sup>8</sup> DCS claims that its argument regarding the limited scope of Contentions 1 and 2 is supported by statements from Judge Moore and Glenn Carroll, GANE's representative, in an April 18, 2002 telephone conference regarding scheduling issues. DCS Motion at 10, citing transcript of teleconference at 14, 29. At page 14 of the transcript, however, it appears to GANE that Judge Moore merely observed that GANE must file a new contention if it wishes to challenge the adequacy of any new information submitted by DCS to satisfy NRC design requirements. As discussed above, GANE has not chosen to make such a challenge. At page 29, Ms. Carroll's shorthand description of the subject of Contentions 1 and 2 as "the absolute lack of materials control and accounting," made during a discussion of whether settlement talks should be undertaken, cannot fairly be taken as an amendment of the contention. The ASLB must look to the language of the contention itself to establish the scope of the contention.



As noted by DCS, Contentions 1 and 2 criticize the lack of detailed information regarding “design features” of the proposed MOX Facility. DCS Motion at 8. DCS argues that as a matter of law, only “design bases” may be considered, and that consideration of “design features” and “design details” must be excluded. *Id.* at 9; DCS Statement of Material Facts on Which No Genuine Issue Exists in Support of DCS’s Motion for Summary Disposition on Contentions 1 and 2, par. 4 (hereinafter “DCS’s Statement of Undisputed Facts”). In support of this argument, DCS claims to rely on the hearing notice for the MOX CAR approval proceeding, the Commission’s decision in CLI-02-09, and the language of 10 C.F.R. § 70.23(b).<sup>9</sup> In the hearing notice and in CLI-02-09, the Commission stated that the scope of the hearing was limited to design approval issues covered by 10 C.F.R. § 70.23(b). That regulation provides that the Commission will approve construction of the principal structures, systems, and components of a plutonium processing and fuel fabrication plant when it has determined that the “design bases” of the principal structures, systems and components, and the quality assurance program provide reasonable assurance of protection against natural phenomena and the consequences of potential accidents. DCS’s argument that the adequacy of “design bases” may be determined in the absence of any details about the design features to which they apply is not based on a rational interpretation of the term. The term “design bases” is not defined in 10 C.F.R. Part 70. The MOX Facility Standard Review Plan, however, refers to the definition provided in 10 C.F.R. § 50.2:

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<sup>9</sup> DCS Motion at 8-9, citing Notice of Acceptance for Docketing of the Application, and Notice of Opportunity for Hearing on an Application for Authority to Construct a Mixed Oxide Fuel Fabrication Facility, 66 Fed. Reg. 19,994, 19,995 (April 18, 2001); CLI-02-09, 55 NRC 245, 249 (2002); 10 C.F.R. § 70.23(b).

that information which identifies the specific functions to be performed by a structure, system or component of a facility, and the specific values or ranges of values chosen for controlling parameters as a reference bounds for design.

Based on this definition, DCS appears to believe that the language of 10 C.F.R. § 70.23(b) excludes consideration of the broader concept of “design features” or “design details.”

DCS’s interpretation of 10 C.F.R. § 70.23(b) is absurdly narrow. It simply is not possible to evaluate the adequacy of design bases at any level of specificity, without also knowing the details of the proposed design. Under the definition of “design bases” provided in the SRP and 10 C.F.R. § 50.2, the description of “functions” and “values or ranges of values chosen for controlling parameters” must be “specific” to each “structure, system or component” of the facility. It is difficult to see how the application could specifically describe functions of structures, systems, or components, without also providing some detail about the nature of the structures, systems or components that are supposed to perform those particular functions. Similarly, it is difficult to see how an application could specifically describe values or ranges of values for controlling parameters, without also providing some level of detail regarding the design specifications for the particular structures, systems, or components that are involved.<sup>10</sup>

In order to permit an evaluation of the design basis for MC&A, the MOX Facility

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<sup>10</sup> DCS’s interpretation of what constitute an acceptable description of “values or ranges of values for controlling parameters” is minimal to the point of absurdity. As discussed in par. 9 of Dr. Lyman’s Declaration regarding Contention 1, for four examples of design bases, DCS merely repeats the performance standard contained in the NRC MC&A regulations. If this reasoning were followed to its logical conclusion, the entire CAR Safety Assessment could be reduced to a single sentence. *Id.*

application must include quantitative information of sufficient specificity, detail and accuracy to enable the NRC Staff to determine whether the MC&A design is likely to support a FNMCP that will meet the requirements of 10 C.F.R. Part 74. Lyman Dec. on Cont. 1, par. 8. As Dr. Lyman discusses in par. 11 of his Declaration regarding Contention 1, the questionnaire developed by the IAEA regarding MC&A design features establishes a good model for an appropriate level of detail regarding MC&A design features.

**B. DCS Has Failed to Show That There is No Genuine Dispute of Material Fact Regarding the Completeness of Design Details for MC&A and Physical Security.**

DCS has failed to satisfy its heavy burden of showing that there is no genuine issue of disputed material fact with respect to Contentions 1 and 2. As set forth in the attached declarations by Dr. Edwin S. Lyman, there are many aspects in which the design for MC&A and physical security remain seriously incomplete, such that they could not form a basis for an NRC finding of adequacy to comply with NRC regulations. These genuine disputed issues of fact are also set forth in Exhibits 1 and 2.

**1. Disputed facts regarding MC&A design**

In its motion for summary disposition, DCS claims to have submitted new information on the MC&A design basis that resolves the claims of Contention 1. The new information is addressed in affidavits submitted by DCS's experts, Kenneth Bristol and Donald Joy. As demonstrated in Dr. Lyman's declaration regarding Contention 1, however, neither the additional information provided in the revised CAR nor the affidavits of Mr. Joy and Mr. Bristol provide new information of sufficient detail to refute

the fundamental premise of Contention 1: that the CAR does not provide a basis for NRC to establish that the applicant's design basis for MC&A and related commitments will lead to a Fundamental Nuclear Materials Control Plan that will meet or exceed the regulatory acceptance criteria in Section 13.2.4 of the MFFF Standard Review Plan. *See* Lyman Dec. Cont. 1, par. 8. Dr. Lyman's Declaration provides a detailed discussion of the aspects in which DCS's MC&A-related design information is incomplete. *See also* Exhibit 1, GANE's Statement of Material Facts As to Which There is a Genuine Dispute Regarding Contention 1, MC&A Design Issues. Accordingly, summary disposition must be denied with respect to this issue.

## **2. Disputed facts regarding physical security design**

DCS also claims to have submitted additional information regarding its design for physical security at the proposed MOX Facility. As discussed in Dr. Lyman's declaration, however, the DBT on which DCS's proposed security design is based is no longer valid. This is recognized in the Staff's 2002 Draft SER and its 2003 Revised SER, in which the Staff postponed its finding on the adequacy of DCS's security design until after changes to the DBT are made. As Dr. Lyman also points out, if and when the NRC makes revisions to the DBT for the proposed MOX Facility, DCS's current method of describing physical security design features will not be sufficient to allow a determination of whether the revised DBT satisfies NRC design requirements.

## **VII. CONCLUSION**

For the foregoing reasons, DCS's motion for summary disposition of Contentions 1 and 2 should be denied. At the very least, disposition of the motion should be

postponed until (1) the NRC Staff has completed its safety review of the MOX Facility design with respect to physical security, and (2) GANE has been able to complete discovery against the NRC Staff.

Respectfully submitted,



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