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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

_____)	
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
BRIEF IN RESPONSE TO CLI-02-04
REGARDING NEPA REQUIREMENT TO ANALYZE
INSIDER SABOTAGE AND MALEVOLENT ACTS FOR
PLUTONIUM FUEL (MOX) FACTORY AT SAVANNAH RIVER SITE**

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Dated February 27, 2002
in Decatur, Georgia

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SECY-02

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I. INTRODUCTION

Georgians Against Nuclear Energy (“GANE”) hereby presents a brief in response to CLI-02-04, a Memorandum and Order by the Commission (February 6, 2002). CLI-02-04 asks the parties to address the question of whether the Atomic Safety and Licensing Board (“ASLB”) correctly admitted GANE’s Contention 12 to the construction authorization proceeding for the proposed plutonium (“MOX”) fuel factory at the Savannah River Site. Contention 12 asserts that the Environmental Report submitted by the applicant, Duke Cogema Stone & Webster (“DCS”) is deficient because it fails to address the consequences of malevolent acts of terrorism and insider sabotage. CLI-02-04 asks the parties to address the question of the NRC’s responsibilities under the National Environmental Policy Act (“NEPA”) to consider intentional malevolent acts such as those directed at the United States on September 11, 2001.

In its historic decision, the ASLB declares for the first time that in the wake of the September 11 attacks, the last tattered shred of credibility has fallen away from the Commission’s longstanding policy of refusing to consider the environmental impacts of

malevolent acts of terrorism and insider sabotage in its Environmental Impact Statements (“EIS’s”). The lack of any rational basis for the Commission’s policy has been evident for many years, in light of increasingly frequent incidences of malicious, sociopathic criminal attacks on U.S. facilities. The events of September 11 removed any doubt regarding the need to treat the potential for such attacks on nuclear facilities as credible and deserving of full consideration in the environmental analysis that is required by the National Environmental Policy Act. It is also clear that the threat continues: just two days ago, for example, the NRC issued an order to all nuclear power plant licensees, requiring them to take immediate, specific measures to protect against “the generalized high-level threat environment.” EA-02-026, Order Modifying Licenses (Effective Immediately) (February 25, 2002).

The need to address the potential for malevolent acts of terrorism or sabotage against the proposed MOX Facility is crucial to the protection of the environment, given the extreme toxicity of plutonium, its destructive potential for use in nuclear weapons, and its attractiveness as a target for sabotage and theft. Indeed, the resolution of questions regarding the potential for terrorism or sabotage against the facility is crucial to assuring that the plant can perform its fundamental mission, which is to safeguard weapons-grade plutonium from use as weapons. Given recent reports that the U.S. government cannot account for 2.8 metric tons of plutonium (including 500 pounds from the Savannah River Site), the inquiry is all the more important.¹

Further, more than 25 years have passed since the NRC last undertook an evaluation of plutonium processing. During that time, the capabilities of terrorists and

¹ See DOE/DP-0137, *Plutonium: The First 50 Years, Plutonium Production, Acquisition and Utilization from 1944 Through 1994*, Sec. 10.2 (February 1996), <http://www.osti.gov/html/osti/opennet/document/pu50yrs/pu50y.html>. According to the report, 68% of the inventory difference occurred before the late 1960’s, when material accounting measures were less strict. However, it is sobering to think that the other 32% that was lost after the late 1960’s amounts to 896 kilograms, almost a metric ton and enough to make 300 to 400 nuclear weapons.

saboteurs have risen dramatically as increasingly sophisticated weapons have become more widely available and international mobility has increased for individuals. Besides sophisticated weapons, the horrific instances of truck bombs and jet bombs illustrate the utility of materials available in the marketplace as weapons of mass destruction. An EIS will provide a much-needed rigorous analysis of issues that have not been examined in the current threat environment.

Finally, preparation of an EIS will provide the real benefit of identifying reasonable alternatives and mitigative measures for reducing the likelihood and/or impacts of malevolent acts of terrorism and sabotage against the proposed MOX Facility, including facility modifications to protect against jetliner attack, and procedural modifications to protect against insider sabotage and unauthorized intrusion by individuals. Because NEPA is “action-forcing,” *see Robertson v. Methow Valley*, 490 U.S. 332, 348 (1989), the NRC will be compelled to evaluate the vulnerability of the MOX Facility to terrorism and sabotage now, when design changes can be more easily made, rather than waiting for new security regulations that may take years to develop. Thus, for instance, whether or not the Commission finishes its “top-to-bottom” review of security measures before the MOX Facility is licensed, NEPA will have required the NRC to take a “hard look” at alternative measures. *See Maryland National Park and Planning Commission v. U.S. Postal Service*, 487 F.2d 1029, 1040 (D.C. Cir. 1973). Accordingly, the hearing granted by the ASLB presents a vital and essential means for assuring that the NRC fulfills its obligations for environmental protection under the National Environmental Policy Act.

GANE respectfully submits that the NRC’s adjudicatory system for the administration of its NEPA obligations in contested licensing proceedings is working in exactly the way it should in this case, and so should be allowed to proceed. The ASLB considered a proposed contention and found that it was adequately specific and supported by an adequate factual basis. It also examined previous NRC decisions barring similar

contentions, and found that the intervenor had submitted new information sufficient to question whether those precedents retained their validity under NEPA. The ASLB should be allowed to continue in its fact-finding role, by conducting a hearing to determine whether and what types of malevolent acts and insider sabotage against the proposed MOX Facility are credible, such that their impacts must be evaluated in an EIS.

II. FACTUAL AND PROCEDURAL BACKGROUND

A. Plutonium Disposition Program and MOX Construction Authorization Proceeding

Following a dismal experience with plutonium fuel manufacture in the U.S., in 1977 President Jimmy Carter announced some of the conclusions he had reached following a thorough review of nuclear power issues. Among other things, he concluded that the risks of proliferation of nuclear weapons required a major change in U.S. domestic nuclear programs and a concerted effort among all nations to prevent proliferation.

As to specific programs, President Carter announced his intent to defer indefinitely U.S. commercial reprocessing and recycling of plutonium; restructure the U.S. breeder program to give greater priority to alternates to the plutonium breeder and to defer the introduction date of a commercial breeder; and redirect the U.S. nuclear R&D program to accelerate research into alternate fuel cycles not involving direct access to materials useful for weapons production.²

In 1996, the U.S. Department of Energy announced a federal policy for the disposition of weapons-grade plutonium that proposed a dual track approach combining both immobilization and processing into MOX fuel. *See* DOE's Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Impact Statement (1996). A more specific discussion of the impacts of plutonium disposal was issued in 1999. *See*

² NUREG-0414, *Safeguarding A Domestic Mixed-Oxide Industry Against a Hypothetical Subnational Threat* at 2.10 (May 1978).

Surplus Plutonium Disposition Final Environmental Impact Statement (1999). The stated purpose of plutonium disposition was to “reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner.”³

On February 28, 2001, via letter from Robert H. Ihde, DCS, to William F. Kane, NRC, DCS submitted a Construction Authorization Request (“CAR”), Quality Assurance (“QA”) Plan, and Environmental Report for a plutonium processing facility at the Savannah River Site. The CAR does not purport to be a license application for the MOX Facility, nor has the NRC treated it as such. Instead, it contains only minimal information which DCS considers necessary to satisfy 10 C.F.R. § 70.23(b), *i.e.*, information related to the design of the facility and the QA program. The CAR omits virtually any information on material control & accounting or a physical security plan.

Despite DCS’s obvious failure to attempt to satisfy the requirements of NRC regulations for the filing of a completed license application, the NRC Staff docketed the license application. The NRC Staff also established a schedule in which the Environmental Impact Statement (“EIS”) would be finished before the NRC had reviewed the adequacy of the rest of the license application seeking to operate the plutonium fuel facility.

On August 13, 2001, GANE filed a motion to dismiss the case with the ASLB, arguing that the docketing of the application and the NRC’s review schedule violate the NRC’s regulations and NEPA. The ASLB denied the motion on December 6, 2001. GANE has filed a petition for interlocutory review, which is pending before the Commission.

³ DOE Surplus Plutonium Disposition Final Environmental Impact Statement, Vol. 1 – Part 1A at 1-3.

On August 13, 2001, GANE also filed a set of contentions regarding the adequacy of the CAR and the Environmental Report. Contention 12 states as follows:

Contention #12. SPD EIS and ER are deficient in their failure to analyze malevolent acts of terrorism and insider sabotage.

GANE contends that a license must not be given for construction and subsequently for operation of a plutonium fuel factory at the Savannah River Site which is situated on the border of Georgia on the Savannah River because it is vulnerable to malevolent acts such as terrorism and insider sabotage which could create an unacceptable beyond design basis accident. DOE did not analyze terrorism or insider sabotage in its Special Plutonium Disposition Environmental Impact Statement published in 1999. Neither did DCS in its 2000 Environmental Report which, while dismissing out-of-hand as inconsequential many credible scenarios, did not even acknowledge the real possibility of terrorism and insider sabotage (see Section 5.5 of the Mixed Oxide Fuel Fabrication Facility Environmental Report). This deficiency may be terminal to this licensing effort. In any event, malevolent acts must be analyzed as a foreseeable environmental impact under NEPA. Lack of analysis of the malevolent acts scenario leads to failure to design safeguards and failure to plan for emergency response and mitigation measures.

Basis: GANE agrees with the comments submitted by the State of Georgia Department of Natural Resources which raise the specter of malevolent acts and submits them here as substantive to our contention. The following text can be found as submitted on September 21, 1998 by James L. Setser, Chief, Program Coordination Branch of Georgia Department of Natural Resources in DOE's SPD EIS, Comment Response Document, Volume III - Part B at page 162:

Malevolent Acts

Several of the facility incidents discussed in Appendix K of the DEIS, particularly those events for which the initiating event is an "operator error," could also be intentionally initiated by an operator with malicious intent (an informed insider). It is unclear that the analyses presented in this DEIS consider malicious intent as an incident initiator. A knowledgeable operator with malicious intent could disable or bypass systems which normally would be used to detect or mitigate an incident.

The transportation section of the DEIS, Appendix L, dismisses the possibility of malevolent acts with these words ... "[i]n no instance, even in severe cases such as discussed below, could a nuclear explosion or permanent contamination of the environment leading to condemnation of land occur. ... [s]uch attacks would be unlikely to occur ... [o]ther materials, including uranium hexafluoride, uranium oxide, TRU waste and LLW, are commonly shipped, and do not represent particularly attractive targets for sabotage or terrorist attacks."

We disagree with the conclusions drawn in this section of the EIS, and request that DOE perform calculations of the consequences of incidents initiated by malevolent acts, including transportation incidents. Results of these analyses should be classified as appropriate, as recommended by DOE Order 151.1, and incorporated into both this EIS and the Emergency Preparedness Hazard Assessment (EPHA) documents for both TSD and the plutonium facilities.

In its response to the State of Georgia, DOE responded that “[s]abotage scenarios are considered conjecture and not reasonably foreseeable.” DOE goes on to say that “[t]he possibility of sabotage would be controlled through safeguards and security provisions including security requirements associated with facility workers.” DOE’s response concludes that “plutonium disposition facilities would be designed and operated in accordance with DOE Orders 470.1, *Safeguards and Security Program* and 151.1, *Comprehensive Emergency Management System*. The MOX facility ... would be subject to similar NRC requirements.”

It is important to note here, that the CAR is deficient in regards to submitting information regarding the design of its safeguards and security program which weighs in at a mere two pages (Sec. 13). DCS states that it plans to submit the safeguards and security program at a later date, which as shown in the accompanying GANE Motion to Dismiss, is illegal both under NEPA and the NRC’s own Part 70 requirements for licensing.

The State of Georgia states in its internal memo *Critique on DOE Comment Response, Surplus Plutonium Disposition Final Environmental Impact Statement, DOE/EIS-0283, September 1999*, that it remains unconvinced by DOE’s attestation that malevolent acts are not a credible scenario for serious accidents:

DOE is particularly insensitive to our concerns regarding malevolent acts including “insider sabotage,” dismissing them as “conjecture.” By dismissing these concerns, DOE can limit the consequences of spills, transfer errors and similar process upsets by assuming, for the sake of analysis, that all such events can be detected and mitigated within 10 minutes. Despite DOE’s claim that this 10-minute duration does not result in truncation of source term (and reduction in the estimate of onsite and offsite consequences), such truncation does occur for process-related events such as the ones mentioned above.

...

DOE elaborates in Appendix L (pages L-25 & 26) with the following statement: “This section provides an evaluation of impacts that could potentially result from a malicious act on a shipment of hazardous or radioactive material during transportation. In no instance, even in severe cases such as those discussed below, could a nuclear explosion or permanent contamination of the environment leading to condemnation of land occur. Because of the Transportation Safeguards System described in Appendix L.3.2, DOE considers sabotage or terrorist attack on an SST/SGT to be unlikely enough such that no further risk analysis is required.”

We are appalled at DOE’s arrogance in this matter. DOE’s own policies require the use of the Design Basis Threat (DBT) to determine event consequences and security requirements. DBT includes consideration of an insider as one potential threat vector. Particularly for facility scenarios, we contend that a knowledgeable insider could defeat detection mechanisms.

GANE contends that for the malevolent acts scenario to go unaddressed could lead to dire consequences for the population and natural environment of South Carolina and Georgia. Terrorism scenarios abound in the nightly news. Assault weapons and rocket launchers may be purchased by members of the civilian population not only on the black market but at weapons trade shows. News stories abound of employees at nuclear facilities around the world stealing special

nuclear materials, to prove that they CAN or at least that's what they say when caught. However, it is not for the well meaning environmentalists of GANE to contemplate such evil, it is incumbent upon the NRC, DOE and DCS under NEPA that they must put their minds to the problem of safeguarding the world against the special problems posed by ultrahazardous materials such as plutonium. The population and the environment must be protected from terrorism, insider sabotage and theft of materials at every point in transporting and processing plutonium and uranium.

Georgians Against Nuclear Energy Contentions Opposing a License for Duke Cogema Stone & Webster to Construct a Plutonium Fuel Factory at Savannah River Site at 45-48 (August 13, 2001).

DCS and the NRC Staff opposed the motion and the admissibility of the contention.⁴ The Atomic Safety and Licensing Board ("ASLB") also held a prehearing conference in North August, South Carolina, on September 21, 2001.

On December 6, 2001, the ASLB issued LBP-01-35, admitting Contention 12 and eight other GANE contentions.⁵ The ASLB admitted Contention 12, concluding that the contention "meets the standards of 10 C.F.R. § 2.714(b)(2) for an admissible environmental contention." *Id.*, slip op. at 50-55. The Board further explained that:

The contention states the precise issue raised, *i.e.*, pursuant to NEPA, DCS's ER must analyze the environmental impacts of terrorist acts causing a beyond design basis accident because such terrorist acts are reasonably foreseeable. It complies with section 2.714(b)(2)(i) & (ii) by providing a brief explanation of the basis and an outline of the basic facts supporting the contention. In this regard, GANE references an internal memorandum of the State of Georgia stating the State's view that terrorists acts against nuclear interests are credible and not conjecture, and then sets out a simple, fact-based argument to the effect that terrorist scenarios and the means by which such schemes are executed are now foreseeable as they are regular fare in the news. Such fact-based arguments are one method of

⁴ See Duke Cogema Stone & Webster's Answer to Georgians Against Nuclear Energy's Request for Hearing (September 13, 2001) ("DCS Response to GANE Contentions"); NRC Staff's Response to Contentions Submitted by Donald Moniak, Blue Ridge Environmental Defense League, Georgians Against Nuclear Energy, and Environmentalists, Inc., September 12, 2001 (hereinafter "Staff Response to GANE's Contentions").

⁵ In addition to Contention 12, the ASLB admitted Contentions 1 and 2 (Materials Control and Accounting) (slip op. at 22-29); Contention 3 (Seismic) (slip op. at 29-33); Contentions 5 and 8 (Designation of Controlled Area Boundary) (slip op. at 35-38); Contention 6 (Inadequate Safety Analysis) (slip op. At 39-43); Contention 9 (Inadequate NEPA Cost Comparison) (slip op. at 44-46); and Contention 11 (Waste Stream from Aqueous Polishing) (slip op. at 47-50).

complying with the requirements of section 2.714(b)(2). See, e.g., *Oconee*, CLI-99-11, 49 NRC at 342 (“[d]ocuments, expert opinion, or at least a fact-based argument are necessary”). Finally, and as required by section 2.714(b)(2)(iii), GANE’s contention provides sufficient information to show a genuine dispute with DCS over whether the ER, as the foundation document for the Staff’s environmental impact statement, complies with NEPA because it fails to analyze the environmental impacts of foreseeable terrorist acts causing a beyond design basis accident.

Id., slip op. at 51. The ASLB rejected an argument by DCS that the Appeal Board’s decision in *Long Island Lighting Company* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 851 (1973) dictates that “NEPA does not require an assessment of the environmental impacts of terrorism.” *Id.*, slip op. at 51-52. The Board found that in ALAB-156, the Appeal Board:

held that the rationale for 10 C.F.R. § 50.13, which obviates the need for design features in reactors to protect against attacks by foreign enemy governments or individuals, applied to the Commission’s NEPA responsibilities as well.

Id., slip op. at 52. The ASLB distinguished ALAB-156 on the ground that:

[b]y its terms . . . section 50.13 applies only to production and utilization facilities and is inapplicable to the [proposed MOX Facility]. Nor is there a comparable regulatory provision covering material license facilities, specifically fuel fabrication facilities. Accordingly, *Shoreham* is inapposite.

Id., slip op. at 52. The ASLB went on to explain that:

Although the rationale for 10 C.F.R. § 50.13 that the *Shoreham* Appeal Board found applicable to the agency’s NEPA responsibilities so as to preclude consideration of the environmental impacts caused by foreign sabotage at a nuclear reactor would appear to be equally applicable to all other facilities regulated by the NRC, the simple fact remains that the Commission has never promulgated a parallel regulation covering 10 C.F.R. Part 70 facilities such as the MFFF. Consequently, for the Licensing Board to apply the rationale for 10 C.F.R. § 50.13 to the agency’s responsibilities under NEPA here, requires a leap that is tantamount to writing a comparable regulation for Part 70 facilities and then applying the rationale for that new regulation to the agency’s NEPA responsibilities for the MFFF. Such an action would involve the Board in making policy decisions that are the exclusive domain of the Commission and require the Board to exceed its assigned role in the Commission’s adjudicatory system.

Id., slip op. at 52.

Applying the legal standard of whether the impacts of the proposed action are “foreseeable” or “remote and speculative,” the ASLB found that GANE had presented sufficient information in its written contention on August 13. *Id.*, slip op. at 52-55.

Nevertheless, the ASLB found that the events of September 11 also could be taken into account to provide further basis for the contention:

 GANE's contention was filed on August 13, 2001. Regardless of how foreseeable terrorist acts that could cause a beyond basis accident were prior to the terrorist attacks of September 11, 2001, involving the deliberate crash of hijacked jumbo jets into the twin towers of the World Trade Center in New York City and the Pentagon in the Nation's Capitol killing thousands of people, it can no longer be argued that terrorist attacks of heretofore unimagined scope and sophistication against previously unimaginable targets are not reasonably foreseeable. Indeed, the very fact these terrorist attacks occurred demonstrates that massive and destructive terrorist acts can and do occur and closes the door, at least for the immediate future, on qualitative arguments that such terrorist attacks are always remote and speculative and not reasonably foreseeable.

 Obviously, the Board cannot close its eyes to the recent terrorists acts or the Commission's immediate response that nuclear facilities, including fuel facilities, maintain the highest level of security readiness. Nor is it controlling that the events of September 11 occurred subsequent to the filing of GANE's contention and are not specifically included in it. The contention speaks generically of foreseeable terrorist acts causing a beyond design basis accident and more is not required. In this regard, however, it should be noted that GANE sought leave to amend the factual basis for the contention and also requested the Board to take judicial notice of the recent terrorist attacks. *See* Tr. at 351. Having found that the contention is admissible, the Board notes that DCS and the Staff are still free to challenge quantitatively the likelihood of such a terrorist initiated event in an attempt to demonstrate it is remote and speculative.

 The ASLB also rejected an argument by DCS that the consequences of a terrorist attack are already encompassed by DCS's analysis of other types of accidents in the ER "and other impact statements." *Id.*, slip op. at 54. As the ASLB observed, none of DCS's accident analyses assume conditions that are "similar to a beyond design basis accident caused by terrorist acts of the type recently witnessed." As the Board explained:

 All of DCS's accident scenarios assume filtration efficiency for each HEPA filter of at least 99%. *See* ER, App. F at F5-F6; CAR § 11.4.9.2. Stated otherwise, in all of DCS's accident scenarios, both HEPA filters continue to function and DCS has not analyzed the impact of any accident in which one or both HEPA filters are incapacitated. In such circumstances, DCS's argument is unpersuasive.

Id., slip op. at 54.

 Finally, the Board rejected arguments by DCS and the Staff that contention 12 is inadmissible "because GANE has not shown it is foreseeable that a MOX facility will be the target of a terrorist attack." *Id.*, slip op. at 54. As the Board held, "[t]he test under NEPA . . . is only reasonable foreseeability, not perfect prescience." *Id.*

Although the ASLB admitted Contention 12, it noted that under normal circumstances it would refer the contention to the Commission because of the “extremely important policy question” that it raises. *Id.*, slip op. at 54. Because DCS had not conceded the validity of the ASLB’s decision on any other GANE contentions, the Board left it to DCS to take an appeal of Contention 12. *Id.*, slip op. at 54-55. Although DCS did not raise the issue in an appeal, it did file a petition for interlocutory review that was granted in part by the Commission in CLI-02-04.⁶

On February 6, 2002, the Commission issued Memorandum and Order CLI-02-04. The order directed the parties to address all issues relevant to the ASLB’s decision with respect to GANE’s terrorism contention. *Id.*, slip op. at 3. In addition, the parties were addressed to address the question of: “What is an agency’s responsibility under NEPA to consider intentional malevolent acts such as those directed at the United States on September 11, 2001?” *Id.*

III. ARGUMENT

A. Statutory and Regulatory Framework

1. General requirements of NEPA

NEPA is the “basic charter for protection of the environment.” 40 C.F.R. § 1500.1(1). Its fundamental purpose is to “help public officials make decisions that are based on understanding of environmental consequences, and take decisions that protect, restore and enhance the environment.” *Id.* NEPA requires federal agencies to examine the environmental consequences of their actions *before* taking those actions, in order to ensure “that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 349.

⁶ See Duke Cogema Stone & Webster’s Petition for Interlocutory Review (January 28, 2002) (“DCS Petition for Review”).

The primary method by which NEPA ensures that its mandate is met is the “action-forcing” requirement that a “detailed statement” be prepared before a federal agency takes any major action which may significantly affect the quality of the human environment. *Robertson*, 490 U.S. at 348; 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1502.1. This statement, known as an Environmental Impact Statement (“EIS”), must describe, among other things, (1) the “environmental impact” of the proposed action, (2) any “adverse environmental effects which cannot be avoided should the proposal be implemented,” (3) any “alternatives to the proposed action,” and (4) any “irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented . . .” *Id.* The EIS must be circulated for comment by the public and other affected agencies, in order to assure that relevant environmental information will “be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation” of a proposed decision. *Robertson*, 490 U.S. at 349.

2. Scope of Impacts That Must be Considered

The environmental impacts that must be considered in an EIS include “reasonably foreseeable” impacts which have “catastrophic consequences, even if their probability of occurrence is low.” 40 C.F.R. § 1502.22(b)(1). Environmental impacts may be ignored only if their probability is so low as to be “remote and speculative.” *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station, CLI-90-4, 31 NRC 333, 334 (1990)).

The fact that the likelihood of an impact may not be easily quantifiable is not an excuse for failing to address it in an EIS. NRC regulations require that: “[t]o the extent that there are important qualitative considerations or factors that cannot be quantified, these considerations or factors will be discussed in qualitative terms.” 10 C.F.R. § 51.71.

3. Requirement to update previous decisions

A federal agency “has a continuing duty to gather and evaluate new information relevant to the environmental impact of its actions.” *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1023-24, citing 42 U.S.C. § 4332(2)(A), (B); *Essex County Preservation Association v. Campbell*, 586 F.2d 956, 960-61 (1st Cir. 1976); *Society for Animal Rights, Inc. v. Schlesinger*, 512 F.2d 915, 917-18 (D.C. Cir. 1975). As the Courts have held, where aspects of a proposed action are addressed by a previously prepared EIS, a new EIS must be issued if there remains “major federal action” to occur, and if there is new information showing that the remaining action will affect the quality of the human environment “in a significant manner or to a significant extent not already considered.” *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989). The principle underlying this holding is that agencies must be provided with up-to-date information regarding their proposed actions, up until the decisionmaking point. *Id.* at 371. The “rule of reason” must be applied to determine the value of the new information to the decisionmaking process. *Id.* at 374.

It follows from *Marsh* that NRC rulings or judicial decisions regarding the significance of environmental impacts in a given case do not have the same precedential value as, for instance, decisions interpreting the safety requirements of the Atomic Energy Act. Rather, in each new case it is appropriate to examine whether the factual considerations undergirding previous NEPA decisions still apply under the NEPA “rule of reason.” NEPA precludes the blind application of past precedents, and requires the Commission to determine whether the factual considerations on which they rely continue to be applicable under current circumstances. To the extent that these previous decisions rely on “stale scientific evidence,” they cannot be relied upon for precedential value in this case. *Cf. Seattle Audubon Society v. Espy*, 998 F.2d 699, 704-05 (9th Cir. 1993) (requiring Forest Service to re-examine its chosen alternative where Final EIS relied on stale and incomplete evidence).

B. The ASLB Correctly Concluded that Neither 10 C.F.R. § 50.13 Nor Its Underlying Rationale Precludes Consideration of Contention 12.

In its Petition for Review, DCS argued that in admitting Contention 12, the ASLB misinterpreted the Appeal Board's decision in *Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 851 (1973). In ALAB-156, the Appeal Board found that the policy underlying 10 C.F.R. § 50.13 could be applied, under NEPA's "rule of reason," for the purpose of excluding a NEPA contention calling for the preparation of an EIS to address the impacts of sabotage on a nuclear plant. The regulation states that an applicant for a nuclear power plant construction permit or operating license is not required to provide:

design features or other measures for the specific purpose of protection against the effects of (a) attacks and destructive acts, including sabotage, directed against the facility by an enemy of the United States, whether a foreign government or other person, or (b) use or deployment of weapons incident to U.S. defense activities.

As listed by the Appeal Board, 50.13's rule's underlying considerations regarding the feasibility and reasonableness of protection against "wartime sabotage," included:

(1) the impracticability, particularly in the case of civilian industry, of anticipating accurately the nature of enemy attack and of designing defenses against it, (2) the settled tradition of looking to the military to deal with this problem and the consequent sharing of its burdens by all citizens, and (3) the unavailability, through security classification and otherwise, of relevant information and the undesirability of ventilating what is available in public proceedings.

Id., citing *Siegel v. AEC*, 400 F.2d 778 (1968). The Appeal Board concluded that this rationale was "as applicable to the Commission's NEPA responsibilities as it is to its health and safety responsibilities."⁷

In LBP-01-35, the ASLB ruled that to apply the rationale underlying 10 C.F.R. § 50.13 to the proposed MOX Facility would require it to take a "leap" that it was not

⁷ With respect to "industrial sabotage," the Appeal Board concluded that the issue need not be considered because the environmental impacts would be no worse than those of a design basis accident. As discussed in LBP-01-35, slip op. at 54, that is not the case here.

authorized to take, because there is no indication that the Commission ever intended to apply this nuclear power plant regulation to a plutonium processing plant.

DCS argues that the Commission should overrule the ASLB and hold that the rationale behind 10 C.F.R. § 50.13 does indeed apply to preclude consideration of Contention 12 under the NEPA “rule of reason.” DCS Petition for Review at 4-5. As discussed below, however, the ASLB’s refusal to apply the rationale for § 50.13 to this case was correct. The application of that rationale to this case would be utterly inconsistent with other Commission pronouncements and NEPA’s “rule of reason.”

1. The rationale underlying 10 C.F.R. § 50.13 is not applicable to the circumstances.

The rationale underlying 10 C.F.R. § 50.13 is inapplicable to the proposed MOX Facility because § 50.13 was promulgated for a purpose that is much narrower than the scope of concerns raised by Contention 12. As the Commission explained in a 1994 rulemaking, the purpose of 10 C.F.R. § 50.13 was to excuse nuclear power plant license applicants from having to design their facilities to protect against a Cuban missile attack. *See* Final Rule, Protection Against Malevolent Use of Vehicles at Nuclear Power Plants, 59 Fed. Reg. 38,889 (August 1, 1994), citing 32 Fed. Reg. 13,445 (September 26, 1967). The Commission reasoned that protection against foreign missiles was the proper responsibility of the U.S. military, not licensees. *Id.*

In contrast, Contention 12 is concerned with the domestic threat of sabotage or terrorism, not attacks by foreign governments from outside the United States. As discussed in Contention 12, terrorism scenarios “abound in the nightly news.” During the past decade, this country has experienced the destruction of a federal building in Oklahoma and serious damage to the World Trade Center by truck bombs and the destruction of the World Trade Center by a commercial airliner bomb. The perpetrators of these attacks were groups of individuals not associated with any recognized foreign government, who committed their crimes from within the United States, using weapons they obtained in the United States. Most have been properly characterized and treated as

criminals, not foreign powers. Moreover, the attacks were committed with weapons made from domestically available materials such as fertilizer and jet airplanes. Moreover, the types of individuals who might perform such acts of terrorism and sabotage in the future range from disgruntled employees to vigilantes with a grudge against the U.S. government. They have easy access to assault weapons and rocket launchers, not only on the black market but at weapons trade shows. These attackers and their crimes simply do not fit the profile of the threat anticipated in § 50.13.

The Commission itself has recognized that this essentially domestic threat is not encompassed by 10 C.F.R. § 50.13. In 1994, the Commission revised the design basis for radiological sabotage to include use of a land vehicle by adversaries for transporting personnel, hand-carried equipment, and/or explosives. The rule was promulgated in response to two events that caused the Commission to question the adequacy of the design basis for nuclear power plants: an intrusion by an automobile into the protected area of the Three Mile Island nuclear power plant, and the truck bombing of the World Trade Center in 1993. *See Proposed Rule, Protection Against Malevolent Use of Vehicles at Nuclear Power Plants, 58 Fed. Reg. 58,804 (November 4, 1988).* As the Commission explained in the Final Rule, the scope of the new rule differed significantly from the scope of § 50.13:

The statement of consideration for 10 CFR § 50.13 makes it clear that the scope of that regulation is to relieve applicants of the need to provide protective measures that are the assigned responsibility of the nation's defense establishment. The Atomic Energy Commission recognized that it was not practical for the licensees of civilian nuclear power reactors to provide design features that could protect against the full range of the modern arsenal of weapons. The statement concluded with the observation that assessing whether another nation would use force against a nuclear power plant was speculative in the extreme and, in any case, would involve the use of sensitive information regarding both the capabilities of the United States' defense establishment and diplomatic relations.

The new rule, with its addition to the design basis threat and added performance requirements, is in response to a clearly demonstrated domestic capability for acts of extreme violence directed at civilian structures. The participation or sponsorship of a foreign state in the use of an explosives-laden vehicle is not necessary. The vehicle, explosives, and know-how are all readily available in a purely domestic context. It is simply not the case that a vehicle bomb attack on a

nuclear power plant would almost certainly represent an attack by an enemy of the United States, within the meaning of that phrase in 10 CFR 50.13.

59 Fed. Reg. at 38,893. Thus, the Commission concluded that 10 C.F.R. § 50.13 is “irrelevant” to protection from a vehicle bomb attack. *Id.* at 38,884. GANE respectfully submits that 10 C.F.R. § 50.13 is similarly irrelevant here, for the very same reasons.

2. Application of the rationale applied in *Shoreham* case would violate the rule of reason.

Similarly, there is no longer any rational basis under which the three factors listed in ALAB-156 could be applied to bar Contention 12. Each of the factors is seriously outdated by current circumstances, as discussed below.

Factor (1): “the impracticability, particularly in the case of civilian industry, of anticipating accurately the nature of enemy attack and of designing defenses against it.” It can no longer be considered impracticable to reasonably anticipate the nature of a serious attack on a nuclear facility. Enough is known about the methods typically used by terrorists, and the vulnerabilities in the designs of nuclear facilities, to evaluate measures that could increase the effectiveness of protection against such an attack.

Factor (2): “the settled tradition of looking to the military to deal with this problem and the consequent sharing of its burdens by all citizens.” It is quite clear in the aftermath of September 11 and other terrorist attacks in recent years that the military is generally ineffective in preventing such attacks, because the military does not stand in constant readiness to counter serious domestic threats. The element of surprise gained by suicide bombers is another factor that makes ordinary military protection relatively ineffective. Thus, the “settled tradition” of relying on the military has no practical applicability in this context. Moreover, while the burden of supporting the military may be shared by all citizens, the costs and benefits of decisions regarding the protection of individual nuclear facilities are not so evenly distributed. If a nuclear facility licensee is allowed to forego measures that would protect against terrorist attacks, it gains an

economic benefit; meanwhile, if an attack occurs that leads to a radiological release, members of the public in the immediate region will bear the greatest burden in terms of health effects and economic cleanup costs.

Factor (3) the unavailability, through security classification and otherwise, of relevant information and the undesirability of ventilating what is available in public proceedings. Finally, it simply is not the case that relevant information is unavailable. Information about the means by which any nuclear facility can be attacked is widely available. While the NRC may have closed much of its website in October, a great deal of information remains in the public domain. During the last ten years, access to information has grown exponentially with the development of the internet. For example, Microsoft's Terra Server, found on the internet at <http://terraserver.homeadvisor.msn.com/default.asp>, has satellite photos of the entire United States with resolution to one meter, searchable by geographic cues. Much information is also available in the news media. Perhaps the greatest threat of all is posed by a rational, determined, trained insider who becomes a bad actor for whatever reason, and already has access and information sufficient to perpetrate a radiological incident.

Accordingly, the considerations underlying 10 C.F.R. § 50.13 cannot rationally be applied to exclude consideration of Contention 12 from this proceeding.

C. The ASLB Was Not Bound by Previous Decisions of the Commission Rejecting Environmental Contentions Based on Impacts of Terrorism.

DCS has argued that the ASLB was precluded by previous NRC and court decisions from considering Contention 12. *See* DCS Petition for Review at 4 and DCS Response to GANE Contentions at 41, citing *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 697-701 (1985) ("ALAB-819"), *review declined*, CLI-86-5, 23 NRC 125 (1986), *aff'd sub nom. Limerick Ecology Action Inc. v. NRC*, 869 F.2d 719, 744 (3d Cir. 1989). In that case, the Appeal Board rejected a contention seeking an EIS on the effects of sabotage, based on its conclusion that the risk of sabotage is not subject to quantification. *Id.*, 22 NRC at 698.

The NRC may not rely blindly on ALAB-819 as a binding precedent, without examining whether it is still viable under current circumstances. Taken together, the Commission's own pronouncements in the 1994 truck bomb rulemaking, and the events of the recent decade show that the Commission no longer has even a remotely valid justification for adhering to the policy set forth in ALAB-819.⁸ Moreover, as recognized by the ASLB in LBP-01-35, if it was ever possible to argue that malevolent and devastating terrorist attacks on U.S. nuclear facilities are not foreseeable, that illusion evaporated on September 11.

Other terrorist events during recent years, which were previously discounted by the NRC as beneath consideration in its environmental reviews, demand to be re-examined in light of the September 11 attack. Taken together, they highlight a number of significant factors: the vulnerability of U.S. facilities and institutions, the sophistication of the attackers, and the persistence of efforts to damage major U.S. government facilities and other institutions. These events include the 1983 bombing of the Marine barracks in Beirut; the 1993 bombing of the World Trade Center; the February 1993 intrusion into the Three Mile Island site, in which the intruder crashed his station wagon through the security gate and rammed it under a partly opened door in the turbine building; the 1995 bombing of a federal building in Oklahoma City; the plot to bomb the United Nations Building, FBI offices in New York City, the Lincoln Tunnel, the Holland Tunnel, and the George Washington Bridge; and the 1998 bombing of the U.S. embassies in Tanzania and Kenya.

⁸ It should be noted that neither ALAB-819 nor the Third Circuit's decision addresses the applicability of 10 C.F.R. § 51.71(d), which requires an EIS to address environmental factors in "qualitative" terms when it is unable to quantify them.

D. The Commission's Own Pronouncements Recognize the Foreseeability of Malevolent Acts of Terrorism and Sabotage.

1. 1994 vehicle bomb rule

The Commission's 1994 vehicle bomb rulemaking shows that even before September 11, the Commission had effectively abandoned its increasingly untenable position that the potential for terrorist attacks can be ignored merely because it cannot be numerically quantified. In the preamble to the 1994 rule, the Commission explicitly recognized that even if the likelihood of terrorist or insane acts cannot be quantified, they may not safely be ignored. Although the legal context of the statements was a safety rulemaking, the factual conclusions are equally applicable in a NEPA setting.

Over the past several years, a number of National Intelligence Estimates have been produced addressing the likelihood of nuclear terrorism. *The analyses and conclusions are not presented in terms of quantified probability but recognize the unpredictable nature of terrorist activity in terms of likelihood.* The NRC continues to believe that, although in many cases considerations of probabilities can provide insight into the relative risk of an event, in some cases it is not possible, with current knowledge and methods, to usefully quantify the probability of a specific vulnerability threat.

The NRC notes that, although not quantified, its regulatory analysis recognizes the importance of the perception of the likelihood of an attempt to create radiological sabotage in assessing whether to redefine adequate protection. The NRC's assessment that there is no indication of an actual vehicle threat against the domestic commercial nuclear industry was an important consideration in concluding that neither the Three Mile Island intrusion nor the World Trade Center bombing demonstrated a need to redefine adequate protection.

The NRC does not agree that quantifying the probability of an actual attack is necessary to a judgment of a substantial increase in overall protection of the public health and safety (a less stringent test of the justification of for a rule change). *Inherent in the NRC's current regulations is a policy decision that the threat, although not quantified, is likely in a range that warrants protection against a violent external assault as a matter of prudence.*

59 Fed. Reg. at 38,890-91 (emphasis added). The NRC further elaborated on what it meant by the term "likely," by identifying several factors that make up the "domestic threat environment," and noting the degree to which it had changed in recent years:

The vehicle bomb attack on the World Trade Center represented a significant change to the domestic threat environment that ... eroded [our prior] basis for concluding that vehicle bombs could be excluded from any consideration of the domestic threat environment. For the first time in the United States, a conspiracy with ties to Middle East extremists clearly demonstrated the capability and

motivation to organize, plan and successfully conduct a major vehicle bomb attack. Regardless of the motivations or connections of the conspirators, it is significant that the bombing was organized within the United States and implemented with materials obtained on the open market in the United States. Accordingly, the Commission believes that the threat characterized in the final rule is appropriate.

Id., 59 Fed. Reg. at 38,891. These same considerations continue to apply post-September 11, and indeed are all the more persuasive given the sea change in the “domestic threat environment.” Motive, capacity, and the pattern of past incidents continue to be relevant to a qualitative analysis:

In assessing the risk of a vehicle bomb attack, the NRC also took into account the potentially devastating consequences of ignoring the threat of attack:

Failure to protect against attempted radiological sabotage could result in reactor core damage and large radiological releases. Based on its assessment, the NRC concludes that amending its regulations to protect against malevolent use of a vehicle against a nuclear power plant provides a substantial increase in overall protection of the public health and safety.

Id., 59 Fed. Reg. at 38,898. Thus, the NRC considers truck bomb attacks to be credible, in spite of the fact that their probability cannot be quantified.

As was the case with respect to vehicle bombs, the consequences of ignoring the potential for an attack on the proposed MOX Facility are significant. A successful sabotage attack on the MOX facility could lead to failure of multiple principal SSCs and hence cause plutonium releases and associated environmental impacts well in excess of those documented in the DCS Environmental Report, which assumes that significant confinement is always maintained, even in the case of “bounding” accidents. As the ASLB pointed out, all accidental releases are mitigated by a leak path factor of 10^{-4} , equivalent to two functioning banks of HEPA filters. This obviously does not consider catastrophic breaches of confinement, such as would be caused by a jet plane attack or deliberate actions to disable the HEPA filter banks. The lack of analysis of credible “beyond-design-basis” sabotage scenarios — *i.e.*, those in which the attacking force exceeds the design-basis threat and is able to penetrate the facility and destroy multiple principal SSCs to induce a “highly unlikely” accident — severely constrains the

flexibility of the MOX plant designers to develop innovative mitigation measures that may be as effective in sabotage attacks as in accident scenarios.⁹

To determine whether the environmental impacts of sabotage are bounded by the accident events analyzed in an EIS, it is obviously necessary to first assess the consequences of sabotage. DOE has demonstrated the feasibility of this approach in the Yucca Mountain Draft EIS by estimating the consequences of “credible sabotage events” and comparing them to the consequences of “maximum reasonably foreseeable accident events.”¹⁰

As the Courts held in *Limerick Ecology Action* and *Citizens for Safe Power*, see discussion above at 18, the scope of environmental protection afforded by NEPA is not bounded by the scope of the “no undue risk” standard in the Atomic Energy Act. Thus, the standard for requiring an EIS demands a degree of prudence that must exceed the degree of prudence which is embodied in the NRC’s regulations. The Commission itself has laid the groundwork to change its policy against considering the impacts of malevolent acts and insider sabotage in its EIS’s.

⁹ Other potential consequences of terrorist activity should be analyzed in the EIS, as set by the example of NUREG-0414, “Safeguarding a Domestic Mixed-Oxide Industry Against a Hypothetical Subnational Threat.” NUREG-0414 analyzed the following additional possible consequences of terrorist acts:

- The detonation of a nuclear explosive
- The dispersal of plutonium-derived radiological agents
- Threats to use the nuclear materials for malevolent purposes unless certain demands were met (blackmail or extortion)

Sabotage of transportation of MOX fuel was also evaluated. See NUREG-0414 at 3-30.

¹⁰ DOE/EIS 0250D, Draft Environmental Impact Statement for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (July 1999) at Vol. 1, 6-33.

2. GESMO GEIS

Moreover, as long ago as 1975, the NRC recognized the necessity of evaluating the environmental impacts of terrorism and sabotage at MOX fuel fabrication facilities.

In August 1974, the Atomic Energy Commission (AEC) issued a draft environmental impact statement (WASH-1327) in accordance with NEPA on the proposed wide-scale use of MOX fuel in light-water reactors in the United States, entitled “Generic Environmental Statement on the Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors” (GESMO). In January 1975 comments by the Council on Environmental Quality (CEQ), the draft GESMO was criticized for being “incomplete because it failed to present a detailed and comprehensive analysis of the environmental impacts of potential diversions of special nuclear materials and of alternative safeguards programs to protect the public from such a threat.”¹¹

In response, the NRC issued a directive in November 1975 (40 FR 53056) that “indicated that before it reached a decision on the wide-scale use of mixed-oxide fuel, there must be a full assessment of safeguards issues” and ordered its staff to prepare a Draft Safeguards Supplement to GESMO. However, before the Draft Safeguards Supplement could be issued, the GESMO proceeding was terminated by the NRC following a policy statement on plutonium recycling by President Carter in April 1977. The Draft Safeguards Supplement was later released as an NRC technical document, NUREG-0414, so as to provide the public with a “comprehensive source of information on the types of nuclear safeguards available, their probable cost, and their possible societal impacts.”¹² NUREG-0414 was comprehensive, considering not only impacts of the diversion or theft of plutonium for weapons but also impacts of acts of sabotage committed against facilities and transports involved in a MOX program.

¹¹ NUREG-0414 at 1-1.

¹² *Id.* at 2-7.

As the CEQ's comments and the Commission's decisions on the Draft Safeguards Supplement make clear, consideration of nuclear theft and sabotage was judged to be a requirement for the generic MOX fuel program EIS, yet the NEPA proceedings were never completed. The reasons why such considerations were deemed necessary in 1975 are even more compelling today in the post-September 11 threat environment. While the scope of the current MOX fuel program proposal is narrower than the generic program that was assessed in GESMO, many of the issues, such as the safeguardability of MOX fabrication facilities, remain relevant. NUREG-0414, although fairly thorough, is a document of its time and badly needs updating.¹³ Indeed, as the document itself states:

the question of whether safeguards are adequate can be discussed only on a dynamic basis. There are no static answers because both the problems and the solutions change as the nuclear industry, the perceived threats to society, and the security technologies that can be brought to bear continue to change.¹⁴

For NRC to now reject the need for a "hard look" at the impacts of terrorist threats to a MOX program would be a major reversal of the policy decision that led to NRC's 1975 directive, and would result in a lack of compliance with NEPA with regard to these potentially major impacts. Given the demonstrably more severe domestic threat environment today, such a policy change would be difficult, if not impossible, to justify.

3. Other pronouncements

Moreover, a variety of other statements and actions taken by the federal government demonstrate, beyond dispute, that the government now considers the threat of additional terrorist attacks to be foreseeable, even inevitable. Indeed, planning for additional terrorist attacks has become the major preoccupation of virtually every federal agency that has any role in protecting public safety. This is reflected in NRC and other press releases, in news reports of statements made by NRC and other government

¹³ Moreover, NUREG-0414 cannot be invoked to satisfy NRC's NEPA obligations in the safeguards area because it was not issued as a Draft Supplement to an EIS and has never been subject to public comment.

¹⁴ Ibid, p. 1-2.

officials, in the creation of the Office of Homeland Security, and in the commitment of several hundred million U.S. taxpayer dollars to ramp up security at nuclear facilities. In summary, as a result of the September 11, the NRC put nuclear licensees on a state of high alert, and began a total review of its security regulations. The NRC's February 25 Order to nuclear power plant licensees to modify their operations to respond to the "generalized high-level threat environment" is the most recent example. The National Guard was called up in several states to reinforce nuclear plant security, the Coast Guard increased its patrols of certain nuclear power plants, and the U.S. Department of Energy ("DOE") temporarily halted all shipments of nuclear waste. In addition, the NRC, the FBI, and the Attorney General of the United States have issued periodic warnings regarding the potential for additional acts of terrorism. In his State of the Union address, the President also referred to nuclear power plant blueprints found in Al Qaeda caves. Thus, the government's own pronouncements show that it considers the threat of terrorist attacks against nuclear facilities to be credible.

Under current circumstances, for the Commission to continue to adhere to its longstanding refusal to consider the impacts of malevolent acts of terrorism and insider sabotage in an EIS would defy the NEPA "rule of reason."

D. EIS Must Fully Address Impacts, Weigh Alternatives and Mitigation Options

An EIS for the proposed MOX Facility would be required to fully consider the impacts of malevolent acts or insider sabotage against the facility, and consider the costs and benefits of reasonable alternatives and mitigative measures. *See* 10 C.F.R. § 51.71. This discussion would be extremely valuable to decisionmakers and the public, because (a) the NRC has never before fully analyzed the environmental impacts of malevolent acts or insider sabotage against a nuclear facility of any kind, let alone a plutonium processing plant, in a threat environment like the one faced today; and (b) because it would provide an analysis of reasonable alternatives that could be employed to minimize or avoid the risks.

An EIS for the proposed MOX Facility would evaluate the vulnerability of the design of the MOX Facility to terrorism and sabotage. It would also force the NRC Staff to consider reasonable alternatives and/or mitigative measures for avoiding or reducing the risks of credible plutonium theft, or facility sabotage attacks capable of causing beyond-design basis criticality events, fires or radioactive releases involving plutonium oxide or the high-alpha liquid waste stream. Consideration of terrorist acts in the EIS will naturally lead to consideration of alternatives to the baseline program that are fundamentally different from those necessary to meet design-basis safety, safeguards and physical protection requirements. Alternatives may include:

- Facility modifications to increase protection from jet aircraft attack, such as hardening the MFFF building, locating it entirely underground, or building structures designed to deflect oncoming aircraft
- MC&A system modifications to exceed regulatory requirements
- I&C system modifications to enhance protection against cyberterrorism
- Program modifications such as utilizing a Federal guard force instead of private contractors, similar to the analysis in NUREG-0414 (p. 6-1) or requiring all MFFF personnel to be Federal employees

It should be noted in this regard that DCS's Environmental Report implicitly contains analyses of potential terrorist acts: for instance, it evaluates alternative "physical security barriers" and methods of material transfer between the PDCF and MFFF. *See* Environmental Report at Sections 4.7.3.8 and 5.7.3.9 at 5-52. Moreover, the DCS discussion of design alternatives (ER at 5.7.3) must have assumed a specific terrorist threat in rejecting the alternatives of constructing an engineered berm around the facility (Environmental Report, § 5.7.3.8) and transferring plutonium oxide from the PDCF to the MFFF through tunnels instead of in overland vehicles. Environmental

Report, § 5.7.3.9. Since the sabotage scenarios under consideration were not discussed, it is impossible to determine whether these design choices were or were not appropriate.

IV. CONCLUSION

As of September 11, it is now clear that terrorists are both capable of and intent upon causing major damage to life and property in the United States. Because of the widespread damage that could be done by a radiological release, nuclear facilities are an obvious target for a terrorist attack. Moreover, like the World Trade Center, nuclear facilities are symbols of wealth and technological power that make them even more attractive to a psychotic or malevolent mind. It would not only be unlawful under NEPA, but human folly to continue to ignore this threat and forego the opportunity to provide better understanding of the risks, alternatives and mitigative measures that are available through preparation of an EIS.

For the foregoing reasons, the Commission should require the EIS for the plutonium fuel (MOX) factory at Savannah River Site to analyze the impacts of malevolent acts or insider sabotage. Barring that, the Commission must remand GANE's Contention 12 to the ASLB for discovery and an evidentiary hearing.

Respectfully submitted,



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Dated February 27, 2002
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¹⁵ This pleading was prepared with substantial assistance from GANE's legal adviser, Diane Curran.

CERTIFICATE OF SERVICE
by Georgians Against Nuclear Energy
(Docket # 70-3098, ASLBP # 01-790-01-ML)

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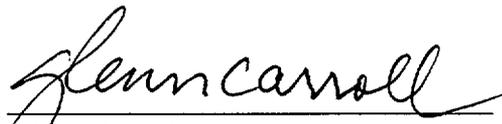
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February 27, 2002 in Decatur, Georgia