

February 27, 2002

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE COMMISSION**

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In the Matter of

DUKE COGEMA STONE & WEBSTER) Docket No. 070-03098-ML

(Savannah River Mixed Oxide Fuel)

Fabrication Facility)

Blue Ridge Environmental Defense League (BREDL) response to

NRC Memorandum and Order CLI-02-04

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I. Summary of Recommendations

BREDL makes the following general recommendations:

1. The Commission should urge Congress to repeal provisions of the Atomic Energy Act that mandate governmental promotion of atomic energy and thus undermine, and are incompatible with, the National Environmental Policy Act. (NEPA)
2. Pursue agency reforms in which the primary goal is a measured transition from a technocracy that subverts science and is inherently hostile to the democratic way, to an agency in which public service is paramount, and "licensees." are regulated rather than assisted or coddled.
3. In order to involve the public at the earliest possible time in all proceedings, agency NEPA regulations should be amended to state that:

The NRC will adhere to the spirit and the letter of NEPA

Public scoping can begin prior to the submittal of an application in complex cases such as new nuclear reactor licensing, plutonium fuel facilities, waste repositories, etc. A general rule of thumb should be that any project requiring a Standard Review Plan requires early scoping.

The NRC will proactively coordinate rule makings and the development of Standard Review Plans with the requirements of NEPA

4. Responsibilities of the NRC specific to the MFFF proceedings include:

Analyzing the risk of unauthorized design, fabrication, and use of a nuclear explosive device derived from surplus weapons plutonium in the U.S. and in Russia.

Comparing the risks associated with malevolent acts between the various alternatives.

5. Responsibilities of the NRC specific to the MFFF proceedings include: I. Background and Chronology of Proceeding.

II. Background

In Federal Register Notice 66 FR 19994-19996 of April 18, 2001, the NRC announced that "any person who wishes to participate as a party in an NRC hearing pertaining to the CAR must file a

written request for hearing” by May 18, 2001. Such request was made by parties and accepted by NRC.

In its Request for Hearing, BREDL raised the terrorist potential within the transportation issue as cause for standing:

i. The MOX fuel option substantially increases DOE radioactive material

shipments in the area between SRS and irradiation facilities, and thus poses an unnecessary risk of harmful exposure to doses of ionizing radiation during incident free transportation operations as well as unnecessary risks of being involved in, or in close proximity to, a major accident resulting in a nuclear criticality event and/or substantial release of plutonium aerosols to our environment as well as an attempted armed attack on the [shipments].

ii. making already crowded highways and roadways more dangerous by adding unnecessary convoys of truck traffic.

iii. creating great public uncertainty and anxiety over the prospect of

transportation of MOX Fuel assemblies within yetuncertified, first-of- its-kind shipping containers that are within unmarked, government-owned Safe Secure Transports (SSTs) or Safe Guarded Transports (SGTs).” BREDL, 5/18/01 at Page 12.

The NRC staff and DCS argued that proliferation issues and transportation issues were outside the scope of this proceeding. In response, in its Introduction to Contentions, BREDL wrote:

The basis for proposed action of licensing a Plutonium/MOX fuel fabrication facility (MFFF) has less to do with science and more to do with evolving national policy, much of it based on actions of the previous Presidential administration and currently under scrutiny by the present administration.

In either case, the entire basis for this proposed action was and continues to be nuclear nonproliferation, and therefore the basis rests on subjective issues of national security and international security that are apparently unquantifiable. Therefore the issue of nonproliferation must be heard at this hearing for the following reasons in addition to those already offered in previous submittals:

a. The Applicant frequently cites nonproliferation policy in the ER as the basis for the need for the facility. Therefore, it is within the scope of the licensing application documents in question, in this case the ER.

i. On Page ES-1 of the ER, the Applicant wrote, “the facility is an integral part of the overall U.S. Government’s strategy for the disposition of surplus plutonium in accordance with [U.S. Foreign Policy statements].”

ii. On Page ES-6 of the ER, the Applicant wrote, “Although the proposed action does have environmental impacts, the impacts are small and consequently acceptable. The environmental impacts are outweighed by the benefit of enhancing nuclear weapons reductions.”

In its Contention Group 10 submitted on August 11, 2001 BREDL raised terrorism as one of numerous risks found in the plutonium/MOX fuel option that are absent in the immobilization option (risks related to nuclear security are emphasized):

substantial risks of plutonium contamination from accidental explosions,

leaks of plutonium and americium contaminated liquids

higher risks of nuclear criticality due to liquid acid processing

higher risks from fires due to use of polycarbonate glove box windows that are not flame resistant;

large scale americium production from plutonium purification

increased proliferation risks due to higher attractiveness of purified weapons-grade plutonium from liquid acid process

risks of Russian Minatom pursuing an export economy involving plutonium fuel, possibly to nations on the U.S. Export Control List;

Increased risk of failing to meet commitments with Russia to dispose of even

34 MT of weapons plutonium, since the mission reactors can only handle 25.5.

Increased risks of plutonium contamination and/or accidental criticality during the unnecessary transportation of Plutonium/MOX fuel assemblies to mission reactors;

Increased and unnecessary risk to the Charlotte, NC and Rock Hill, SC areas from irradiating more dangerous and technically risky plutonium/MOX fuel in Catawba and McGuire NPP;

Increased risk of terrorist attack on SST's because MOX shipments are planned in conjunction with refueling, a fact that reveals a much smaller window for shipments to take place and therefore heightens security risks.

DCS and NRC staff continually responded to proliferation and security issues by labelling them as "outside the scope" of this proceeding. (See Page 202 of Official Transcript).

A prehearing was held on September 21, 2001, 10 days after the September 11, 2001 terrorist attack. The NRC and DCS staff continued to argue that the issues of sabotage and terrorism were beyond the scope of this proceeding. BREDL urges the Commission to review the transcript for that hearing for the portions involving GANE Contention 12.

The Licensing Board conferred standing upon BREDL and other parties on December 6, 2001, based upon transportation issues that the staff and DCS had argued were "outside the scope

of the proceeding." The Board also admitted GANE Contention 12, *Failure to Analyze Malevolent Acts of Terrorism*, writing that:

"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 that these terrorists attacks occurred demonstrates that massive and destructive terrorists 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.”

DCS appealed the ruling first to the Board and then to the Commission.

On February 6, 2002, the Commission issued Memorandum and Orders in four ongoing cases, of which BREDL is involved in two, and stated in each one that:

“The parties to this proceeding shall file briefs that address all issues that the parties determine are relevant to the matters discussed above, and in addition shall address in particular the following question:

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? The parties should cite all relevant cases, legislative history and regulatory analysis.”

III. NRC Responsibilities, including NEPA

Concerns with the Commission Approach

The Commission is to be commended for finally addressing this issue while other agencies like the Department of Energy regress back into Cold War habits of exclusion and secrecy. The concerns BREDL have are two-fold in this case:

While recognizing that legal proceedings tend to narrowly confine issues, we believe the Commission is obligated to engage the American public outside of these proceedings with a similar question: *What is an agency's responsibilities to consider and prevent, and if necessary react to, intentional malevolent acts such as those directed at the United States on September 11, 2001?*

The limited involvement of parties that just happen to be involved with legal proceedings raises the issue of whether the Commission is embarking on a potential rule-making and therefore is obligated to solicit wider and deeper public input.

Responsibility Under The U.S. Constitution

The Commission's first responsibility is to uphold the *Constitution of the United States*. In this regard we note two issues pertinent to this hearing. First, "We the People" did not establish a Technocracy as a form of government. Second, the little-cited Ninth Amendment states that:

“the enumeration in the constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.”

Among the rights not explicitly defined in the Constitution are the right to clean air, water, and soil, which today is collectively referred to as “the environment;” and the right to open government unencumbered by unnecessary secrecy. These two rights suffered immense abuse during the first half of the Cold War, during the rise of technocratic agencies. These abuses were readdressed in two powerful pieces of legislation: the Freedom of Information Act (FOIA) and the National Environmental Policy Act (NEPA).

NEPA as policy and law

The purpose of the National Environmental Policy Act of 1969 (as amended), or “NEPA”, is:

The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

Title I of NEPA is the *Congressional Declaration of National Environmental Policy*, in which the Congress articulated that it is Federal Policy for all federal agencies:

a. “to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.”

(b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consist with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may --

fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an

environment which supports diversity, and variety of individual choice;

achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

c. The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment."

The remainder of Title I defined the requirements of the policy while Title II created the Council on Environmental Quality. Specifically, Congress mandated that: "the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance" with NEPA, and required agencies to conduct systematic, interdisciplinary analyses during the planning and in decision making "which may have an impact on man's environment". NEPA called for "detailed statements" on potentially harmful or destructive proposals regarding:

(i) *the environmental impact* of the proposed action,

(ii) *any adverse environmental effects which cannot be avoided* should the proposal be implemented,

(iii) *alternatives* to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) *any irreversible and irretrievable commitments of resources* which would be involved in the proposed action should it be implemented." (emphasis added)"

The statute is simple, elegant, and short; a three-page law representing one of the brightest moments in Congressional and American history. Senator Henry "Scoop" Jackson's description of NEPA, at its passage, as "the most important and far-reaching environmental and conservation measure ever enacted by Congress . . ." continues to hold true.

NRC's View of NEPA Must Change

The NRC has always viewed NEPA with grudging indifference. The Commission's rules for following National Environmental Policy and adhering to the CEQ's rules for implementation are found in Subpart A of 10CFR51. In 10CFR51.10, Statement of Purpose, the NRC places qualifiers on its commitments to honor national policy:

..".Commission's announced policy to take account of the regulations of the Council on Environmental Quality published November 29, 1978 (43 FR 55978 - 56007) voluntarily, subject to certain conditions.";

"(b) The Commission recognizes a continuing obligation to conduct its domestic licensing and related regulatory functions in a manner which is both receptive to environmental concerns and consistent with the Commission's responsibility as an independent regulatory agency for protecting the radiological health and safety of the public."

These statements are unnecessary at best and set a bad tone for implementing NEPA. For example, compare the Commission's language to that utilized by the Department of Energy, the other half of the former Atomic Energy Commission also known for secrecy, arrogance, and exclusionary practices. Department of Energy's states in its NEPA rules:

Sec. 1021.101 Policy. It is DOE's policy to follow the letter and spirit of NEPA; comply fully with the CEQ Regulations; and apply the NEPA review process early in the planning stages for DOE proposals.

Another assessment of the NRC's approach to NEPA was expressed by Dr. Charles Kelber of the ASLBP in Charlotte, North Carolina on this past December:

"JUDGE KELBER: That's why Mr. Moniak,

very often NEPA has been referred to as excellent

policy and terrible law."

MR. MONIAK: In its implementation,

but in bureaucracies it can be a terrible law."

The reply to Judge Kelber's statement was meant to be:

NEPA appears to many as a terrible law because unwieldy bureaucracies constantly try to circumvent it during implementation.

At the September 21, 2001 prehearing in Augusta, BREDL stated, and paraphrases here, that if the NRC implemented NEPA in the same systematic and deliberate approach it took to preparing Standard Review Plans, we would all be better off for it.

The promise of NEPA is as strong today as it was in 1969, what is needed is for the technocracies like the NRC to hold it paramount, and in doing so it will abide by its commitments to the Atomic Energy Act.

Invite the CEQ in a Reform Effort

The difficulties of implementing NEPA were summarized in a 1997 report by the CEQ in reviewing the first 25 years of the policy. The CEQ described problems in a generic approach, but cited specific agency examples in making its case for better implementation. It is notable that the NRC was not cited as providing any meaningful examples of implementation.

The report is cited verbatim here because it aptly proves that government can function with good intentions, is not always something to be feared, and can deliver the goods in plain language. First, the CEQ heralded the benefits of NEPA:

“Clearly, NEPA is much more than environmental impact statements and environmental assessments. It is an eloquent and inspiring declaration which, well before the term “sustainable development” became widely used, called for the integration of our varied aspirations as a society. NEPA is a tool with tremendous potential to help build community and to strengthen our democracy.”

“In a piece of legislation barely three pages long, NEPA gave both a voice to the new national consensus to protect and improve the environment, and substance to the determination articulated by many to work together to achieve that goal. To that end, NEPA charges CEQ and all federal agencies with achieving “productive harmony” among our environmental, economic, and social objectives. NEPA directs federal agencies to open their doors, bring the public in, and offer genuine opportunities for participation and collaboration in decision-making.”

“The Department of Energy Leadership Changes an Agency Mission

“Thank God for NEPA because there were so many pressures to make a selection for a technology that

might have been forced upon us and that would have been wrong for the country

Then-Secretary of Energy James Watkins made this statement to the House Armed Services Committee in 1992, regarding his decision to defer selection of a tritium production technology.” (Page 13)

However, the CEQ also stated that “despite these successes, however, NEPA's implementation at times has fallen short of its goals.” The problems it found in implementation perfectly describe the NRC's current problems with NEPA:

Unfortunately, NEPA's role as a strategic planning tool has not been fully realized. Agencies differ in the extent to which they integrate NEPA's framework into their internal planning processes. How early an agency integrates NEPA into its internal planning will dramatically affect the length of time for approval, the cost, and the ultimate success of a proposal. If an agency focuses on analyzing individual projects, rather than analyzing the program that calls for those projects, the NEPA process will likely take longer, cost more, and yield fewer alternatives for a final decision. Regardless of whether an agency in a particular case should analyze a proposal as part of a larger scheme, when agencies forgo the alternatives analysis – making decisions first and then beginning the NEPA process – they rob NEPA of its strategic planning value.” (Page 11)

Some citizens' groups and concerned individuals view the NEPA process as largely a one-way communications track that does not use their input effectively. The Study concluded that creating a true partnership with the community involves more than holding a hearing and making documents available. Public involvement takes effort – and time.

“Citizens are frustrated when they are treated as adversaries rather than welcome participants in the NEPA process. When they are invited to a formal scoping meeting to discuss a well-developed project about which they have heard little, they may feel they have been invited too late in the process. In addition, public “hearings” at times are seen as parties “talking past each other,” with very little listening. Some citizens complain that their time and effort spent providing good ideas is not reflected in changes to proposals or satisfying explanations for why suggestions were not incorporated. Citizens report that they often feel

overwhelmed by the resources available to proponents and agencies. As a consequence, litigation can be seen as the only means to affect environmental decisions significantly.” (Page 18).

On August 11, 2001, BREDL submitted a group of contentions (Contention Group 2) that outlined how poorly the NRC was implementing NEPA in this proceeding, outlining how the NRC failed to incorporate the public early in its NEPA process, failed to consult with other agencies such as the DNFSB, and allowed DCS to negotiate with the NRC staff to define scope.

NEPA Vs. The Atomic Energy Act. Incompatibilities

The NRC's primary responsibility stemming from this proceeding is to advocate Congress to repeal the promotional aspects of the Atomic Energy Act of 1954. The stipulation that the government promote and encourage atomic energy is based on obsolete Cold War ideology and is inappropriate for modern times. Furthermore, promotion of atomic energy undermines and subverts national environmental policy.

The NRC's NEPA problems are rooted in the antagonism of the Atomic Energy Act towards the environmental policy. *Calvert Cliffs' Coordinated Committee v. Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971), *cert. denied*, 404 U.S. 942 (1972) was “one of the first cases interpreting NEPA, and set the tone for all subsequent NEPA cases.” According to Swartz, the court's many points included:

“The AEC's interpretation of its NEPA responsibilities was "crabbed" and made "a mockery of the Act." Section 102's requirement that the "detailed statement" 'accompany' a proposal through agency review means more than physical proximity and the physical act of passing papers to reviewing officials. It is not enough that environmental data and evaluation merely "accompany" an application through the review process but receive no consideration from the hearing board as contemplated by the AEC regulations.

The AEC improperly abdicated its NEPA authority by relying on certifications by federal, state, and regional agencies that the applicant complied with specific environmental quality standards. NEPA mandates a case-by-case balancing judgment on the part of federal agencies; in each case, the particular economic and technical benefits of an action must be weighed against the environmental costs. Certification by another agency that its own environmental standards are satisfied involves an entirely different kind of judgment and attend to only one aspect of the problem--the magnitude of certain environmental costs. Their certification does not mean that they found no environmental damage, only that it was not high enough to violate applicable standards. The only agency in a

position to balance environmental costs with economic and technical benefits is the agency with the overall responsibility for the project.”

Conflict over NEPA in this and other proceedings continue to have a root cause in the Atomic Energy Act of 1954 because the act mandated the federal government to promote the cause of Atomic Energy:

CHAPTER 1– DECLARATION, FINDINGS, AND PURPOSE

Sec. 1. Declaration 42 USC 2011.

Declaration:

Atomic energy is capable of application for peaceful as well as military purposes. It is therefore declared to be the policy of the United States that–

- a. the development, use, and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all times to the paramount objective of making the maximum contribution to the common defense and security; and
- b. the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise.

Sec. 3. Purpose. 42 USC 2013. Purpose.

It is the purpose of this Act to effectuate the policies set forth above by providing for–d. a program to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public;

This institutionalized promotion of one energy source to the exclusion of others amounts to a subversion of science, democracy, and environmental policy as defined by NEPA, and must be repealed. Although the Commission prefaces its own remarks by stating that the NRC is not a promotional agency, the fact remains that it is widely perceived to be a promoter of atomic energy, it is rooted in an atomic-energy promotion culture, and its defense of atomic energy is probably more effective than any promotion activities could ever be.

A perfect example is the Commission’s letter to Vice President Cheney in February 2001.

In the last paragraph of his February 28, 2001 letter to Vice President Dick Cheney, Chairman Meserve wrote that

"The Commission is aware that actions relating to nuclear matters can raise significant public concerns. We believe that any such concerns must be openly

acknowledged and directly confronted."

The word "confront" was absent throughout the rest of the four-page letter to Vice President Cheney detailing the NRC's recommendations for national energy policy legislation. When it came time to describe its approach to industry, Chairman Meserve resorted to much softer language:

"we believe there are legislative opportunities to reduce unnecessary burdens to the

consideration of nuclear power";

"facilitate consideration of nuclear power by the private sector";

"The Commission, working with the industry and other stakeholders, has put in

place a more efficient licensing procedure, which could be utilized in the event that

society should decide to construct new nuclear power plants."

In other words, while the NRC claims its primary mission is protection of public health and safety and our environment, it clearly advocated making it easier to construct and operate the only major power source that also functions as potential radiation weapon of mass destruction.

The February 2001 letter also provides precedent for BREDL's recommendation for the Commission to advocate the legislative repeal of the promotional stipulations in the Atomic Energy Act. In that letter the Commission advocated eliminating a number of requirements such

as antitrust review, the the ban on foreign ownership of nuclear power plants, the requirement under the National Environmental Policy Act (NEPA) requiring a review of the evaluation of the need for electric power, claiming it is "distant" from its mission, and, most importantly, called for renewal of the public liability subsidy called the Price-Anderson Act in a clear admission that nuclear power is still too dangerous for the insurance industry:

"Extend the Price-Anderson Act. The Price-Anderson Act, which expires on

August 1, 2002, establishes a framework that provides assurance that adequate

funds are available in the event of a nuclear accident and establishes the framework

for consideration of nuclear claims. Without the framework provided by the Act,

private- sector participation in nuclear power would be discouraged by risks

of large liabilities." (emphasis added).

Even if the Commission continues to deny its role as a promoter of atomic energy, it must acknowledge the impact of the Atomic Energy Act's mandate to the DOE on this proceeding. The promotional aspects of atomic energy have compromised NEPA in this proceeding because the

basis for the proposal derived from the federal promoter of atomic energy, the Department of Energy.

DOE's obligations and tendencies to promote nuclear power undermined the integrity of the surplus plutonium management NEPA documents in favor of the reactor-based alternative for "disposition." As pointed out in BREDL Contention Group 8:

DOE irreparably biased the SPDEIS towards MOX through the premature solicitation of a MOX contractor. The 1998 DOE Request for Proposals (RFP) for *MOX Fuel Fabrication and Irradiation services* (Solicitation Number DE-RP0298CH10888 and subsequent amendments) in which DOE requested consortiums of fuel fabricators, engineering firms, and nuclear reactor operators to submit proposals for "*design, licensing, construction, operation, and eventually decontamination and decommissioning of a MOX [fuel fabrication] facility as well as irradiation of the MOX fuel in existing domestic, commercial reactors should the decision be made by DOE in the SPD EIS ROD to go forward with the MOX program.*" (BREDL Contentions, 8/11/01).

As with Contention Group 2, the merits were not decided upon because DOE's NEPA process is considered out side the scope of this proceeding.

The institutionalized bias towards nuclear energy continues to undermine the very basis of NEPA, the development and analysis of reasonable alternatives. Government agencies like the DOE that view their mandate as nuclear power promotion will continue to make decisions that are contrary to sound analysis under NEPA. The AEC culture that lingers in both the DOE and NRC continues to be hostile towards, or perhaps at best ambivalent, towards the idea of analyzing alternatives or conducting honest and fair appraisals of the impacts of radiation, alternative energy sources, etc.

IV. Malevolent Acts involving Plutonium Fuel

DCS has misrepresented the issue to the Board and the Commission

The Commission should recognize that DCS has distorted and misrepresented GANE's original contention and this entire issue to both the Board and the Commission. For example, in its first appeal of the Board's 12/6/01 decision, DCS wrote:

"The Board's decision has significant generic implications for future NEPA analyses performed by the NRC for other facilities. Moreover, there is no guidance for performing an evaluation of the environmental impacts of a deliberate crash of a large airplane causing "massive and destructive" damage to a nuclear facility." DCS, Page 26, 12/17/01.

DCS also placed the aircraft issue at the forefront in its list of questions for the Commission to consider issuing guidance:

"(1) Whether, and under what circumstances, a terrorist-caused beyond design basis accident (such as the deliberate crash of a large airplane) must be considered under NEPA;" (DCS to Board, 12/17/01, Page 27). "

In fact, GANE's contention predated by September 11 by a month and did not mention aircraft. It was DCS that, completely unprovoked, raised the issue of a deliberate crash by a large airplane, during the September 21, 2001 prehearing. DCS's obsession with placing this issue within the narrow confines of terrorism-by-aircraft is a disservice by a government contractor in that it obscures and distorts the whole picture and ignores the essential questions that were posed to it by the Board on September 21. For example, DCS has yet to address the issue as posed by Judge Kelber on September 21 regarding the intentional disabling of ventilation safety systems.

DCS arguments are self-contradicting

“DCS’ response stated, among other things, that: (1) acts of terrorism are intentionally performed and therefore inherently unpredictable; (2) a review under NEPA need not include all theoretically possible environmental effects; (3) a NEPA review may be limited to those effects which are shown to have some likelihood of occurring at a particular site; and (4) the NEPA rule of reason does not require the performance of a “worst case analysis.”(Page 25 of 12/17/2001 DCS Submittal to Licensing Board).

At the same time, In arguing against quantitative assessments, DCS took the bold and contradictory step of making its own–albeit completely unsubstantiated–qualitative assessment that bordered on odds making:

“Furthermore, while the Board has apparently concluded that since September 11, the likelihood or foresee ability of a terrorist attack has increased, an alternative conclusion is also reasonable. That is, that given the dramatic increase in resources and attention being paid to this issue since September 11 by federal, state and local authorities, the likelihood or foresee ability of such an event has actually decreased.” Footnote, Page

This reasoning should be rejected because it is untrue and merely represents wishful thinking rather than a recognition of harsh and sober realities. Dramatic increases in resources and attention accompanied the bombing of the World Trade Center in 1993 and the Oklahoma City Bombing. The likelihood of an act of mass destruction has been predicted for years. As Rand Corporation expert Brian Jenkins succinctly stated the evening of September 11: “I am shocked, but not surprised.”

DCS’ arguments also misrepresent and distort the issue because:

1. Acts of sabotage are predictable enough to require stringent safeguards, and arguably are as likely to occur at a plutonium fuel facility as a design basis earthquake. The likelihood of malevolent acts involving the use of plutonium for nuclear terrorism is highly unlikely and inherently unpredictable, yet the National Academy of Science’s subjective rhetoric of surplus plutonium posing a “Clear and Present Danger” remains the official motto for the plutonium management program and the justification for this proceeding.
2. There are no requests to consider all theoretically possible environmental effects. .
3. The determination of “design basis” earthquakes, tornadoes, and other natural phenomenon is as much an art as it is an exact science; yet these determinations are made with confidence and optimism;
4. The general public inherently understands uncertainty and in fact laypersons raise uncertainties during NEPA far more often than industry.

DCS’s Request for Guidance .

In asking the Board to certify the issue to the Commission, DCS wrote in December 17, 2001 that:

“Therefore, in the interests of administrative consistency, economy and efficiency, the Board should certify its substantive determination on GANE Contention 12 for consideration by the Commission. In so certifying, the Board should explicitly request direction on the following questions:

- (1) Whether, and under what circumstances, a terrorist-caused beyond design basis accident (such as the deliberate crash of a large airplane) must be considered under NEPA;

(2) Whether a quantitative assessment of the likelihood or consequences of such an

event is practicable or required under NEPA to determine if such an event is

reasonably foreseeable;

(3) If the impacts of a terrorist-caused beyond design basis event must be considered under NEPA, what assumptions or guidance should be used in performing such an evaluation; and

(4) What range of alternatives should be considered for mitigating the environmental impacts?"

The Board's Ruling was Appropriate for this Proceeding

"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 that these terrorists attacks occurred demonstrates that massive and destructive terrorists 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."

The ruling is more appropriate in this proceeding for one simple reason: The plutonium/MOX fuel fabrication facility, and the entire plutonium disposition program, is officially justified as a means to prevent nuclear terrorism. The probability of a terrorist group obtaining weapons plutonium and then making a bomb is no longer considered "remote and speculative," yet it has not been quantified.

The fact that malevolent acts are increasingly foreseeable is reflected in the updated security measures and the drastic measures taken by the NRC and DOE to withhold unclassified, non-safeguards information from the public. The new public information standard, although it lacks any regulatory basis and contravenes the Freedom of Information Act and the public right to know, is that information should be withheld that falls under the vague criteria of "might be useful to a terrorist."

Of course, following this vague criteria to its logical extension would put Rand McNally out of business, since it publishes detailed maps showing the locations of major dams in addition to very detailed maps showing likely hazardous waste routes. Still, it would be hypocritical of the NRC to rule that the threat from terrorists is so great today to warrant suppressing unclassified safety and health information and denying the public its right to know under the 9th Amendment, but too "remote and speculative" to warrant a careful analysis under NEPA.

Furthermore, one only has to look at the Middle East, and Isreal in particular, to realize that terrorism prevention is not solely a function of devoting "resources and attention to this issue."

The "Practicality" of Quantifying the Risk of Sabotage

The commercial nuclear industry is loathe to attempt to quantify the probability of sabotage using probabilistic risk assessments. The NRC, as an independent regulator, is not obligated to honor or codify the industry's resistance.

In a recent pleading to the Security Exchanges Commission, Duke energy recently argued:

To the extent that the Proposal requests an analysis of risk likelihood (utilizing probabilistic risk assessment methods) with respect to attack or acts of sabotage, however, such an

analysis is not capable of being produced since information concerning prior terrorist attacks and acts of sabotage against nuclear power plants or involving the transportation or storage of nuclear fuel, which would be necessary for probabilistic risk assessments, does not exist

In this proceeding DCS argued:

While the Board has stated that DCS and the NRC Staff “are still free to challenge quantitatively the likelihood of such a terrorist-initiated event,” DCS does not believe that such a quantitative analysis is possible. In *Limerick Ecology Action, Inc. v. NRC*, the court upheld the NRC’s determinations that the risk of a sabotage event was beyond the state of the art of probabilistic risk assessment methodology, was not amenable to quantification, and need not be considered in an EIS.⁴³ It was the NRC’s position then, and to the best of DCS’ knowledge, it remains the Commission’s position now, that no such quantification is practical, or necessary under NEPA.”

Two interrelated arguments can be made against this line of reasoning:

1. Progress has been made developing probabilistic risk assessments for malevolent acts involving nuclear weapons, which are safeguarded at a far higher level than nuclear power plants or fuel fabrication plants. For example, James W. Purvis wrote in 1999, *Sabotage at Nuclear Power Plants*. Sandia National Laboratory SAND-99-1850C. Public Domain document, that:

Several organizations, such as the IAEA and the US NRC [2,8–1 1], have guidelines, recommendations, and formal threat and risk-assessment processes for the protection of nuclear assets. Some other examples include the former Defense Special Weapons Agency, which used a risk-assessment model to evaluate force-protection security requirements for terrorist incidents at DOD military bases. The US DOE uses a graded approach to protect its assets based on risk and vulnerability assessments. The Federal Aviation Administration and Federal Bureau of Investigation conduct joint threat and vulnerability assessments on high-risk US airports. Several private companies under contract to government agencies use formal risk-assessment models and methods to identify security requirements.

If the sabotage considerations are expanded for NPPs, it might be useful to examine in detail all of the

existing risk assessment methodologies and then use the most applicable ideas. A uniform, consistent national or international risk assessment process could be beneficial in areas other than just physical protection.

Analysis data, along with consequence values and response force capabilities, should be used to make risk predictions. However, risk calculations might also take into account the proposed new consequence tables for the various targets and types of sabotage. As previously mentioned, there are many agencies and organizations which use risk analysis. A consistent, standardized risk assessment methodology using consequence value tables appears to be the most desirable.

If analysis and risk evaluation show that a facility has an unacceptable risk level against a certain type of sabotage, the physical protection for the target should be upgraded. For

example, if a target is at risk from a vehicle bomb attack, the installation of vehicle barriers at least 120 meters away [4] should mitigate the problem.

Quantifying the probability of sabotage is also a logical extension of Human Reliability Analyses, particularly in the realm of insider-assisted terrorism and/or disgruntled employees. In the 1990's, the NRC devoted considerable resources to research on HRA's and their use is fully integrated into NPP PRA's today.

2. The case law supporting this argument was based on data and methods that are now decades old, and was made at a time when PRA's were still in pioneering stage. The body of knowledge and data to support PRA's that assess risk of sabotage is, unfortunately, greatly expanded, and the state of the art in probabilistic risk assessment methodology has certainly advanced since *Limerick Ecology Action Inc v. NRC*.

The fact is that under NEPA, the NRC is obligated to answer, in comparing alternatives, which alternative poses the greatest risks and effects. where are the probabilities of terrorism/insider acts higher? Transportation, criticality with solutions, explosive solutions, use in reactors, etc. As already stated in the Introduction, the differences between MOX and immobilization are numerous. In comparison to immobilization, MOX poses numerous hazards, that, when viewed from the perspective of malevolent acts, greatly increases the vulnerabilities due to terrorism, insiders, et al:

substantial risks of plutonium contamination from accidental explosions,

leaks of plutonium and americium contaminated liquids

higher risks of nuclear criticality due to liquid acid processing

higher risks from fires due to use of polycarbonate glove box windows that are not flame resistant;

large scale americium production from plutonium purification

increased proliferation risks due to higher attractiveness of purified weapons-grade plutonium from liquid acid process

risks of Russian Minatom pursuing an export economy involving plutonium fuel, possibly to nations on the U.S. Export Control List;

Increased risk of failing to meet commitments with Russia to dispose of even

34 MT of weapons plutonium, since the mission reactors can only handle 25.5.

Increased risks of plutonium contamination and/or accidental criticality during the unnecessary transportation of Plutonium/MOX fuel assemblies to mission reactors;

Increased and unnecessary risk to the Charlotte, NC and Rock Hill, SC areas from irradiating more dangerous and technically risky plutonium/MOX fuel in Catawba and McGuire NPP;

Increased risk of terrorist attack on SST's because MOX shipments are planned in conjunction with refueling, a fact that reveals a much smaller window for shipments to take place and therefore heightens security risks.

For Blue Ridge Environmental Defense League

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