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United States of America  
Before the President's Blue Ribbon Commission on America's Nuclear Future

**NEW ENGLAND COALITION'S COMMENTS  
REGARDING THE BLUE RIBBON COMMISSION  
DRAFT REPORT TO THE SECRETARY OF ENERGY - JULY 29, 2011**

**INTRODUCTION**

New England Coalition on Nuclear Pollution (NEC) welcomes the opportunity to comment on the President's Blue Ribbon Commission (BRC) on America's Nuclear Future, 'Draft Report to the Secretary of Energy.'

NEC was incorporated in 1971, as the New England Coalition on Nuclear Pollution, and comprises more than 2000 members throughout New England.

NEC places hope in the commission's ability to help mitigate the grave situation communities face in coping with growing stores of high level nuclear waste literally in the backyards of millions of Americans. This is, as the report admits, a dangerous and untenable situation.

NEC contends that dealing with the most risk-laden waste situations first must be the BRC's recommended top priority.

**COMMENTS ON THE DRAFT REPORT**

**TOP PRIORITY - The BRC must take the lead in establishing best-practices safeguards and security for on-site storage of high-level nuclear waste. The clear and present danger overcrowded spent fuel pools represent must be relieved by immediate removal of spent nuclear fuel to safeguards and security enhanced dry cask storage.**

NEC is troubled by BRC findings that consolidated interim storage facilities must be considered when experience shows that the process of siting and transfer is likely to take decades and that spent fuel will remain on site for many years to come.

NEC concurs with the BRC report finding that: "Even with timely development of consolidated storage facilities, a large quantity of spent fuel will remain at reactor sites for many decades before it can be accepted by the federal waste management program."

The prospect of interim consolidated storage is problematic in ways that were not fully explored in the draft report. Interim consolidated storage may turn out to be a waste of time and money if siting of the first of at least two requisite central geologic repositories proceeds on schedule anywhere near that of siting interim storage. The costs and liabilities of packaging for shipping and shipping will be borne twice.

At operating nuclear reactor sites, it is necessary to maintain security and safeguards in any case, therefore there may be little to gain by a move to an interim site .

The BRC draft advocates that a first priority should be removing casks from fully decommissioned plants. This remains problematic. If spent fuel is truly being safely stored at these sites, the only advantage readily apparent to most decommissioned sites from a move

to consolidated interim storage is an advantage to the utilities of release of liable and expense (assuming a federal agency takes title to the fuel).

The irony should not escape the Congress or the BRC that these same nuclear operating companies have successfully lobbied the Nuclear Regulatory Commission (NRC) for regulation to permit early licensing, consolidated construction and operation licensing, extended power uprates, and license renewals; the net effect of which is to produce more nuclear waste at a greater rate while subjecting the public to more not less risk while simultaneously permitting the states and the public fewer, not more, hearing rights.

While we agree that the communities on which nuclear power reactors, now decommissioned, and their attendant waste dumps were imposed should be accorded some form of relief, it should be considered that the high-level nuclear waste in question is already in casks and is much safer than the waste stored in over-packed spent fuel pools around the country.

Particularly egregious is the situation at the Fukushima-type spent fuel pools stored high above the nation's boiling water reactors. The situation makes these pools far more susceptible to malevolent acts or aircraft accidents, or what insurance companies nationally say will be increasingly violent weather and potentially increased seismic activity in unexpected areas.

The BRC draft provides little guidance as to how the commission weighed comparative risks (consequence X probability) when setting priorities. If the BRC did not consult experts (including independent experts and critics) and the basic documentation, then the priority picture is inevitably skewed to the heavy pro-nuclear presence on the commission and the weighted presence on BRC presentation panels given the nuclear industry and industry supporters in the first round of BRC local meetings.

NEC offers, for example, NRC's NUREG-1738 as particularly revelatory, stating as it does that the Mark 1 Boiling Water Reactors' (BWR) secondary containment would present no substantial obstacle to aircraft penetration or that (in one BWR studied) under extreme seismic stress the bottom of the spent fuel pool could "dropout."

While NRC has contrived new accident casualty estimates to the approximate capacity of an elevator, the same 2000 staff study contemplates in Appendix4-Table A4-7 cancer fatalities from a spent fuel pool fire in a BWR Mark I of up to 26,800 out to a distance of 500 miles; this presuming 95 percent evacuation in the Emergency Planning Zone.

The BRC draft report did not address new designs in dry cask storage, such as the Holtec 100 U, specifically designed to work with below-grade storage and submitted for licensing to NRC by Holtec International, a company selected to move waste fuel from Chernobyl's undamaged units into dry cask storage.

The Nuclear Regulatory Commission has already clearly identified safeguarding spent fuel pools a priority, and the industry seems to agree. According to the Wall Street Journal, October 5, 2011: *A task force of U.S. regulators recommended Wednesday that domestic nuclear plants move quickly to beef up safety on the pools that hold and cool used nuclear fuel rods, after similar pools overheated during the Japanese nuclear crisis in March ... Mitch Singer, spokesman for the Nuclear Energy Institute, said his group supported the recommendations, which he said the nuclear industry believed were manageable*".

Clearly both the NRC and the industry see safeguarding spent fuel pools at these reactors a priority. However, what NRC proposes to safeguard spent fuel pools has not to date changed from its approach to 9/11 threat scenarios, which all involve, one way or another schemes for make-up water and cooling. They also do not address the core issue of reducing the heat, hydrogen, and radiation source to original design levels.

The BRC can provide the leadership and political cover needed to make on-site hardened dry cask storage happen before a catastrophe occurs.

Therefore, NEC recommends that the commission make reduction of the clear and present danger we face from spent fuel pools the first waste management priority and that the BRC recommend that Waste Management Fund be accessed within one year of the Secretary's acceptance of the draft report to help fund this necessary measure.

**The BRC must recognize within the report the common sense concept of not allowing the industry to create more waste until a solution and a timetable for real waste management are achieved.**

The BRC, it appears, limits itself to the presumption that commercial nuclear power will eventually begin to grow again and explains why, in the opinion of the BRC, nuclear is an environmental winner, but refrains at the same time from voicing an opinion as to whether nuclear will or should grow...or reduce or cease operation altogether.

The BRC notes but rejects the common sense argument that has already been made and laid before it many times: if you don't have a place for the waste, stop making it until you do. NEC offers that BRC does a disservice to lawmakers and the public if it does not provide solid reasons for rejecting outright open consideration of this possibility. Lawmakers and the public, surely, cannot be said to fully informed unless they have in hand an unbiased cost-benefit/risk-benefit analysis of the various alternatives.

NEC supports a BRC common sense moratorium on building new reactors and relicensing old ones until a consensus and timetable, fully funded and legally writ, on waste management is reached. In other words, enforce a simple principle of not allowing the industry to create more waste until a solution and a timetable for real waste management are achieved.

As stated in the report's Executive Summary, "this nation's failure to come to grips with the nuclear waste issue has already proved damaging and costly and it will be more damaging and more costly the longer it continues."

NEC urges the Commission to amend its report so that will help educate lawmakers and public from an economic perspective on how the 'back end' burdens of the nuclear fuel cycle, those with which the BRC has been charged to reckon, balance with the 'front end' benefit of nuclear power.

The BRC must of course provide more detailed cost estimates and time-tables (something on which the draft report is noticeably short) before an objective assessment can be made of any of its recommendations.

**The NEC objects to the recommendation, as it stands, that a new management organization assume the U.S. Department of Energy's role in managing radioactive waste.**

NEC agrees with the BRC's finding that "launching ... a new organization could add to the financial burden on the U.S. Treasury and on American taxpayers and utility ratepayers."

Creation of a new agency would not likely enjoy Congressional support in the near term, thereby creating more and more delays.

NEC believes the BRC has failed to justify with objective argument and evidence of creating a new bureaucracy and thereby substituting an unknown for a remediable known.

The BRC is too vague as to what qualities of its proposed new agency will have that DOE and its contractors do not have that will ensure success in waste management. In general, the BRC draft report ducks the obligation to examine the history of the previous battle before strategizing the new battle. What worked? Anything? What can be salvaged from the failures?

One example of success in temporary waste management might be the Surrey (VA) Independent Spent Fuel Storage Installation where, beginning around 1979, various forms of dry cask storage from various vendors have been deployed and monitored for performance.

Yucca Mountain generated a mountain of data (on materials performance, for example) and trained a generation of engineers in the problems of waste storage.

**BRC should recommend an investigation and reevaluation of the role and performance of NRC as it pertains to the "back end" of the nuclear fuel cycle.**

The real agency reform that needs to take place is at the embattled Nuclear Regulatory Commission. In the report, the BRC has restrained commentary on the NRC's purview on radioactive waste storage. The NRC has lost credibility and in giving credence to its actions, the BRC endangers credence in its own.

NEC urges that wherever it is practicable in addressing movement and storage of waste fuel, the BRC retain the initiative of it to DOE or BRC's recommended new agency should it in fact ever be created. At the least, the BRC should recommend an investigation and reevaluation of the role and performance of NRC as it pertains to the "back end" of the nuclear fuel cycle.

NRC is the enabler that permitted its licensees to pack spent fuel pools so tightly that many of them now require boron plates between fuel assemblies to assure against inadvertent criticality.

At Vermont Yankee, an early BWR, NRC oversight has been so slack as to allow the licensee to misplace and lose documentation on spent fuel segments; to allow dry cask crane-qualifying test lifts at only 70% of filled weight; followed by crane brake failure, followed by failure to install crane travel stops; permitting crane travel over stored fuel, etc. NRC studies have said that a loaded cask dropped from a height of three feet would punch cleanly through the bottom of a spent fuel pool and, dropped from the surface, the water in the spent fuel pool would not significantly slow its descent.

NRC's version of the old Soviet ten-year plans is the waste confidence rule; whereby NRC periodically stated that it was confident that permanent waste storage would be available

within the ten year confidence period, 1998, 2005 and so on. NRC used the waste confidence rule to fend off any attempt at redress by the citizens or the states regarding shoddy and dangerous “temporary” waste storage and the increased need for storage capacity inherent in extended power uprates and license renewals.

NRC’s most recent iteration of the waste confidence rule has removed any calendar reference completely. NRC is confident that there will be waste storage – sometime-period!

For these reasons and many others having to do NRC’s regulator/industry revolving door; with ever-slacking oversight and ever-expanding promotion of something-for-NRC-to-regulate, to vast majority of informed citizenry and to many state regulators, NRC has assumed the aspect of rogue agency. The report must reflect BRC’s concern with this status quo or risk losing all credibility with key constituencies.

**NEC recommends that the commission place more emphasis on sharing waste burden with the nuclear industry itself to reflect economic and security realities of today and advocate applying to nuclear similar waste standards to which other industries must abide.**

NEC agrees with the BRC findings that legislation providing full access to nuclear waste fee revenues and the federal Nuclear Waste Fund is needed.

We also recommend that, due to the mounting costs of waste management and the substantial profits that the nuclear companies have made and relief they have gotten through the ‘Judgment Fund’ (liabilities already in the billions of dollars and projected to increase by at least \$500 million for every projected year of delay), that this legislation include an increase in the ‘polluter pays’ fees paid by private companies to the Nuclear Waste Fund including a provision that prevents these companies from passing along increases to ratepayers since it is the ratepayers who have long subsidized the industry and the profits it has achieved.

A lot has changed since the 1982 Nuclear Waste Policy Act created the fund. The Cold War is over. Economic realities and the changing security environment (i.e. nuclear non-proliferation priorities) require a new relationship between the federal government and the nuclear industry. The federal government can no longer sustain the burdens of an industry that essentially would not exist without taxpayer support.

Federal subsidy and mandated rate-payer support for waste disposal may have been deemed reasonable when the nuclear industry was an untried, somewhat experimental, and filled-with-hope scientific achievement, but it is now more analogous to a fifty-year-old drop-out living at his parent’s home and paying no bills; and perhaps the nation’s single largest welfare cheat.

The BRC should recommend a leveling of the playing field among energy providers by applying the same waste responsibilities to nuclear other industries must abide by.

**To facilitate public input and consent processes, NEC recommends federal funding for intervenors so groups can better carry out their watch dog work as citizen advocates within the process**

Participation in federal siting and licensing proceedings is the sole effective means of citizen redress before federal agencies regulating nuclear activities. The input of NEC and many

other non-profit public interest advocacy groups has proven valuable in building a good record on issues before the NRC, DOE, FERC, EPA and even the National Academies of Science. Of these federal entities, FERC stands out in its assistance to intervenors, providing money, for example, to bring in experts on material technical issues that can assist the intervenors and FERC in their proceeding.

Citizens have many times demonstrated that they can make meaningful contributions to nuclear regulation process. NEC, as a citizen intervenor in both the Maine Yankee and Vermont Yankee ISFSI siting and construction processes, secured through negotiation, innovative, significant security and safeguards enhancements to dry cask storage

BRC has recommended that consulting the public be made a key part of the process in seeking waste solutions. NEC heartily concurs. BRC should include in its recommendations, as part of public input and consent process that groups like NEC get funding to do their watch dog work as citizen advocates within the process.

**NEC concurs with the BRC finding that reprocessing existing waste is not a solution and will not be feasible any time in the near future.**

According to the BRC draft report: "Moreover, all spent fuel reprocessing recycle options either already available or under active development at this time still generate waste streams that require a permanent disposal solution." We agree generally with this finding; with the caveat, that "permanent " may be a relative term.

The BRC should recommend consideration of long term monitored retrievable geologic storage, not unlike the German Gobein model. We recall that one failing of the Yucca project was the setting of very conservative release standards that ultimately could not be met. Setting realistic standards is vital to the success of any future project. Such standards should be set in consultation with the EPA, the international scientific community and the public at large.

**CLOSING GENERAL COMMENTS**

The draft report, from NEC's perspective, should be handled as both a policy document and a technical assessment of the state of waste management and its prospects. On the technical assessment side, NEC found that the entire draft report was laced through with assumption and conclusions for which little rationale, origin, or original context was provided. Conflicting opinions were noted without any attempt to say how the BRC weighted or compared them. A risk data chart (table) was compiled by the staff from "various sources" without identifying the sources and without indicating if there were any efforts to corroborate the data; the whole reminiscent of fallout from the "Friendly Atom." Such a casual approach should not be entertained in a document as serious and important as the BRC report may finally prove to be.

By focusing on the back end of the fuel cycle, the report skews air pollution data in comparisons to other electric generation fuel sources because air pollution is largely 'front-loaded' in the nuclear fuel cycle. Thorium and radon gas in mining, the carbon emissions of mining, milling, enrichment, fabrication; in domestic production all largely powered by coal-generated electricity, and GHG (CFC, etc) all pouring from the front-end of the cycle are given short shrift.

Likewise, in short supply in this draft report are projected time and dollar costs and cost comparisons without which no reliable, objective assessment of BRC's speculations and recommendations can be made.

How long, for example, will it take to site, complete, and open Yucca II? Will it cost more or less than the \$10 billion poured into Yucca I? What would be the comparative cost of consolidated interim storage during the development phase of Yucca II? What would be the anticipated capacity? How soon would a second and third repository be needed? NRC now claims that the dry casks are good for at least 120 years and potentially up to 300 years. Should this generation therefore assume any sense of urgency?

Finally, is it fair to allude to anticipated achievements in nuclear generation and recommend federally funded research and development in them without comparing projected growth and development in competing sources of alternative energy? NEC submits it is not fair and violates the BRC's assertion that it has not "offered a judgment about the appropriate role of nuclear power in the nation's (or the world's) future energy supply mix.

## **CONCLUSION**

We appreciate the opportunity to comment on the BRC's draft report and look forward to seeing NEC's comments, many of which reiterate those made by concerned citizens and groups nationwide, incorporated into the final BRC report to the Secretary of Energy and President Obama.

Respectfully Submitted,  
*(signed electronically)*

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