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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Annette Vietti- Cook, Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attn: Rulemakings and Adjudications Staff

Re: Massachusetts Attorney General Petition for Rulemaking, Docket No. PRM-51-10

Riverkeeper submits the following comments to the Nuclear Regulatory Commission (NRC) in support of the Massachusetts Attorney General Petition for Rulemaking, published in the November 1, 2006 *Federal Register* (Vol. 71, No. 211). This petition requests that the NRC do the following: 1) fully consider new and significant information that shows the NRC's characterization of the environmental impacts of current spent fuel storage as "insignificant" in the 1996 Generic Environmental Impact Statement for Renewal of Nuclear Power Plant licenses (License Renewal GEIS) is incorrect, 2) revoke the regulations that codify that incorrect conclusion, 3) issue a generic determination that the environmental impacts of high-density fuel storage are significant, and 4) order that any future licensing decision that approves high-density storage at a nuclear power plant or other facility must be preceded by an environmental impact statement (EIS) that addresses the environmental impacts of the high-density storage and a reasonable set of alternatives for avoiding or mitigating those impacts, as required by the National Environmental Policy Act (NEPA).

High-density Storage of Spent Fuel Poses Significant Environmental Risk

The risk of a severe accident associated with high-density storage of spent fuel in fuel pools at nuclear power plants has been well documented by the NRC's own staff, independent federal government research and independent experts.¹

Riverkeeper, Inc

Page 1

Re: Massachusetts Attorney General Petition for Rulemaking, Docket No. PRM-51-10



Virtually all operating nuclear power plants in the U.S. have implemented high-density storage, in response to the federal government's failure to resolve the nuclear waste issue in a timely manner. The original design basis for these spent fuel pools was based on a much lower storage capacity, to allow passive air cooling of the fuel assemblies if the cooling water was drained, either by accident or sabotage. The NRC's decision to allow re-racking of spent fuel at much higher densities resulted in very little clearance between adjacent fuel assemblies. As a result, passive air cooling would not be sufficient to prevent an eventual fire and radiological release if the water was even partially drained from a pool with high-density storage.

The 9/11 Commission Report confirmed that Al Qaeda considered targeting nuclear power plants in their attacks, but wrongly believed them to be well protected. One of the four planes hijacked on 9/11 flew past the Indian Point nuclear power plant, located twenty five miles outside New York City, on its way to the World Trade Center. Subsequent analysis of the pools' vulnerability to terrorist attack was documented in a 2006 National Academy of Science report, which found that a terrorist attack that succeeded in draining the water from a spent fuel pool even partially could lead to a fuel fire that would release large quantities of radioactive materials into the environment. The resulting contamination would result in widespread and long-lasting public health, environmental and economic impacts.

NRC is relying on outdated studies to support its contention that the risk of a spent fuel pool fire caused by accident or sabotage is too remote to require consideration under NEPA. The determination of "insignificant" impact in the 1996 Generic EIS for license renewal is based on assumptions of terrorist intent and capabilities that pre-date the 9/11 attacks, and thereby do not adequately consider the use of unconventional weapons or tactics, such as the use of large commercial aircraft or a small private plane loaded with explosives in a suicide attack on the fuel storage or control room buildings.

Rescinding the current regulations addressing spent fuel pool storage and requiring plants to return to low-density fuel storage would significantly lower the risk of a spent fuel pool fire, lessen the attractiveness of spent fuel pools as terrorist targets, and result in more secure storage of spent fuel onsite at nuclear
Riverkeeper, Inc.

plants for the foreseeable future.

Future NRC Licensing Decisions Must Address Impacts of Terrorist Attack

As of March 2007, the NRC has renewed the licenses of nearly half the operating reactors in the U.S. without properly addressing the risks of fuel pool fires due to accident or sabotage. The remaining license renewal reviews, including those already underway, must include a comprehensive analysis of the environmental impacts of high-density fuel storage as required by NEPA. As part of this review, applicants would have to consider alternatives to mitigate or avoid the risks of high-density storage, such as moving older fuel to hardened, secure dry cask storage to allow for lower density storage in the fuel pools. This is a common-sense approach that acknowledges the federal government's failure to resolve the impasse over the Yucca Mountain repository, and the current threat environment at nuclear power plants.

NRC Must Apply the 9th Circuit Decision in all Future Licensing Proceedings

In 2006 the 9th Circuit Court of Appeals held that the NRC must address the environmental impacts of terrorist attacks in environmental assessments or environmental impact statements in future licensing decisions, including the spent fuel storage facility at Diablo Canyon nuclear power plant in California. *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Circuit 2006), *cert denied*, 127 S.Ct. 1124 (2007). In response to this ruling, NRC required the assessment at Diablo Canyon, but categorically refused to implement the court's directive in any other current or future licensing proceedings, including the license renewal review for Oyster Creek. See *In the Matter of AmerGen Energy Co. LLC (License Renewal for Oyster Creek Nuclear Generating Station)*, CLI-07-08 (February 26, 2007).

The NRC's position in this regard is completely unreasonable, for the following reasons. First, the Commission claims that "substantial practical difficulties impede meaningful NEPA-terrorism review." *Id.* at 8. Yet the Commission does require such review for the Diablo Canyon dry cask storage facility. If there are

differences between a relicensing proceeding and a licensing for a dry cask facility, the Commission does not make these clear in this opinion. Indeed, it remains unclear why the Commission can comply with the court's ruling in one circumstance and claim it is impossible to do so in another. This type of cavalier decision-making does not lend itself to regulatory consistency or predictability in future agency decisions. Rather, it openly invites future litigation in other federal circuit courts that may or may not support the 9th Circuit decision. In the meantime, decisions on license renewals of existing plants continue to be made without consideration of these potential impacts.

Second, NRC's decision is inconsistent with other federal agencies that exercise oversight of both nuclear and electric generating facilities. In December 2006 the Department of Energy's Office of NEPA Policy and Compliance sent out a memo mandating that "DOE National Environmental Policy Act documents, including environmental impact statements (EISs) and environmental assessments (EAs) should explicitly address potential environmental consequences of intentional destructive acts (i.e., acts of sabotage or terrorism)."ⁱⁱ In light of the 9th Circuit decision, the directive is to be applied to "all DOE proposed actions, including both nuclear and non-nuclear proposals."ⁱⁱⁱ In addition, the Federal Energy Regulatory Commission (FERC) required an analysis of the environmental risks and impacts of a terrorist attack on a liquefied natural gas facility, in the agency's Draft EIS for the Broadwater LNG project proposed for Long Island Sound off the coast of New York and Connecticut.^{iv} If these agencies find it not only possible but necessary to require such analysis, why is NRC unable to come to the same conclusion? Both FERC and DOE license and regulate large, complicated projects involving nuclear materials and fossil fuels with the potential to cause environmental damage if an accident or attack occurs. It is unreasonable for the NRC to claim that this type of analysis is unnecessary or overly difficult to implement.

Conclusion

Therefore, Riverkeeper reiterates its support for the Massachusetts Attorney General's Petition for Rulemaking to amend 10 CFR Part 51, and urges the NRC to make the regulatory changes outlined in the petition.

Sincerely,

Lisa Rainwater
Indian Point Campaign Director
Riverkeeper, Inc.

ⁱ See NUREG-1738, *Final Technical Study of Spent Fuel Pool Accident Risk and Decommissioning Nuclear Power Plants* (NRC: January 2001); National Academy of Sciences Report on the Safety and Security of Commercial Spent Nuclear Fuel Storage, *Safety and Security of Commercial Spent Nuclear Fuel Storage* (The National Academies Press: 2006); Gordon Thompson, *Risks and Risk-Reducing Options Associated with Pool Storage of Spent Nuclear Fuel at the Pilgrim and Vermont Yankee Nuclear Power Plants* (May 25, 2006). These reports are included as attachments or are fully referenced in PRM-51-10.

ⁱⁱ Memorandum from Carol M. Borgstrom, DOE Office of NEPA Policy and Compliance to DOE NEPA Community, *Need to Consider Intentional Destructive Acts in NEPA Documents*, dated December 1, 2006.

ⁱⁱⁱ *Supra* Note i.

Riverkeeper, Inc

Page 5

Re: Massachusetts Attorney General Petition for Rulemaking, Docket No. PRM-51-10

^{iv} An electronic version of the Broadwater DEIS can be found at http://elibrary.ferc.gov:0/idmws/File_list.asp?document_id=4456079, last accessed March 15, 2007.

From: "phillip" <phillip@riverkeeper.org>
To: <SECY@nrc.gov>
Date: Mon, Mar 19, 2007 3:56 PM
Subject: Riverkeeper Comments to PRM-51-10

Secretary Vietti-Cook,

Please find final version of Riverkeeper comments attached, thank you.

Phillip Musegaas

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