

**PRM-51-12**  
**(72FR27068)**

**From:** "John Sipos" <John.Sipos@oag.state.ny.us>  
**To:** <mtl@nrc.gov>  
**Date:** Mon, Aug 13, 2007 1:57 PM  
**Subject:** PRM 51-12, State of California

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August 13, 2007 (4:16pm)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Dear Mr. Lesar:

Enclosed please find a cover letter (addressed to the Secretary) along with New York's comments.

Paper copies will be delivered tomorrow.

Respectfully,

John J. Sipos  
Assistant Attorney General  
State of New York

Template = SECY-067

SECY-02

**From:** Michael Lesar  
**To:** SECY  
**Date:** Mon, Aug 13, 2007 1:59 PM  
**Subject:** Fwd: PRM 51-12, State of California

Resent to address the comments to the Secretary of the Commission.

**Mail Envelope Properties** (46C09B7D.3E0 : 21 : 992)

**Subject:** PRM 51-12, State of California  
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**From:** "John Sipos" <[John.Sipos@oag.state.ny.us](mailto:John.Sipos@oag.state.ny.us)>

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Annette L. Vietti-Cook  
Secretary  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852

August 13, 2007

Re: *PRM 51-12, State of California - NEPA*

Dear Secretary Vietti-Cook:

Enclosed please find comments submitted on behalf of the State of New York in support of the State of California's request for proposed rule making regarding the application of the National Environmental Policy Act to spent fuel pools.

We will be happy to discuss our concerns with the Staff at any mutually convenient time. Thank you for your consideration of the enclosed comments.

Respectfully submitted,

s/

John J. Sipos  
Assistant Attorney General

cc:

Brian Hembacher,  
Assistant Attorney General  
Office of the Attorney General  
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300 South Spring Street, Suite 1702  
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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of:

Proposed Amendment to 10 C.F.R. Part 51  
(Rescinding finding that environmental  
impacts of pool storage of spent  
nuclear fuel are insignificant)

NRC Docket No.  
PRM 51-12

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NEW YORK STATE'S COMMENTS IN SUPPORT OF  
CALIFORNIA'S PETITION FOR RULEMAKING  
TO AMEND 10 C.F.R. PART 51

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The State of New York respectfully files these comments in support of the request for proposed rule making initiated by the State of California on March 16, 2007.

California has requested that the Nuclear Regulatory Commission amend its administrative regulations and rescind the Commission's 1996 decision in which it found that the environmental impacts of storing spent nuclear reactor fuel in cooling pools located at nuclear power plants around the country were "insignificant," and, therefore, did not merit review under the National Environmental Policy Act of 1969 (NEPA). The NRC's refusal to examine the environmental effects of the continued and anticipated long-term storage of spent radioactive fuel at a number of nuclear power plants is inconsistent with NEPA as well as a recent Ninth Circuit decision that held that NEPA required the NRC to examine the environmental impacts of dry cask storage at a California nuclear power plant. *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006).

New York incorporates the comments that it and other states previously submitted to the NRC on March 16, 2007 in connection with the related rule making request filed by Massachusetts, NRC Docket No. PRM 51-10.

## **California's Petition**

Specifically, California requests that the NRC undertake a rule making to: (1) rescind NRC Part 51 regulations which were adopted in 1996 and declare that the potential environmental effects of the approval, construction, and operation of high-density pool storage of spent nuclear fuel are not and cannot be "significant" for purposes of NEPA and NEPA analysis; (2) adopt and issue a generic determination under NEPA that approval of such storage at a nuclear power plant or any other facility does constitute a major federal action that may have a significant effect on the human environment; and (3) order that no NRC licensing decision that approves high-density pool storage of spent nuclear fuel at a nuclear power plant or other storage facility may issue without the prior adoption and certification of an environmental impact statement that complies with NEPA in all respects, including full identification, analysis, and disclosure of the potential environmental effects of such storage, including the potential for accidental or deliberately-caused releases of radioactive products to the environment as well as full and adequate discussion of potential mitigation for such effects, and full discussion of an adequate array of alternatives to the proposed storage project.

## **Spent Fuel Storage Pools**

After it is used in nuclear reactors to generate energy, spent nuclear fuel is extremely hot and radioactive. To protect workers, facilities, and neighboring communities, every nuclear power plant in the nation constructed large swimming-pool-like structures in which the spent fuel is temporarily stored until its temperature cools. Such pools are located outside the protective containment shells that surround nuclear reactors. The spent fuel pools do not share a uniform cookie-cutter design. Some pools are located at ground level while others are located above the ground. Different fuel pools have different designs and liners, some of which have been damaged during refueling operations over the years.

These pools, however, were never intended to serve as medium- or long-term storage facilities for spent radioactive fuel. Rather, the United States government and the nuclear energy industry expected to dispose spent radioactive fuel at the nuclear waste disposal facility located at Yucca Mountain in Nevada. The federal government initially committed that the Yucca facility would open in 1998. *See generally Entergy Nuclear Indian Point 2, LLC v. United States*, 64 Fed.Cl. 515, 517 (2003).

However, Yucca Mountain still is not ready to receive spent nuclear fuel and it is unlikely that the site will be ready for at least another decade. Recent statements by Department of Energy (DOE) confirm that, under an optimistic

scenario, the Yucca Mountain disposal site could not begin receiving waste until 2017. Other credible assessments indicate that the Nevada disposal site will not open until approximately 2023.

DOE also has indicated that given Yucca's planned waste capacity, a second national storage facility will be necessary to absorb nuclear waste produced on a going-forward basis. Given the significant and on-going delays concerning the proposed nuclear waste storage facility at Yucca Mountain in Nevada, it appears increasingly likely that spent nuclear fuel will be stored in high-density fuel storage pools for many years at the 103 nuclear power plants located throughout the country.

### **Environmental Impacts and Risks Caused by Spent Fuel Pools**

Recent reports by the National Academy of Sciences, the NRC's own technical staff and independent experts contradict the NRC's assertion that high-density fuel storage pools pose no significant environmental risk.<sup>1</sup> Instead, these studies show that fuel storage pools are susceptible to fire and radiological release from a wide range of conditions, including natural phenomena, operator error, equipment failure, or intentional attack. The environmental impacts of a fire in a spent fuel pool may be severe, extending over a geographic area larger than a state's legal boundaries and continuing for decades.<sup>2</sup>

Nor are such risks merely hypothetical: groundwater monitoring wells confirm the ongoing leaking of radioactive fluid from two separate spent fuel pools at the Indian Point nuclear power station, located on the Hudson River and in close proximity to New York City and many other New York, Connecticut, New Jersey, and Pennsylvania cities and towns. The recently-filed license renewal application for Indian Point recognizes that the plumes of tritium and strontium leaking from

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<sup>1</sup>See, e.g., NUREG-1738, Final Technical Study of Spent Fuel Pool Accident Risk and Decommissioning Nuclear Power Plants (NRC: January 2001); National Academy of Sciences Committee 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 or relevant excerpts are attached to the Massachusetts Attorney General's Rulemaking Petition in PRM 51-10 and are incorporated herein by reference.

<sup>2</sup>See Jan Beyea, Report to the Massachusetts Attorney General on the Potential Consequences of a Spent-fuel Pool Fire at the Pilgrim or Vermont Yankee Nuclear Plant (May 25, 2006). Dr. Beyea's Report is attached to the Massachusetts Attorney General's Rulemaking Petition in PRM 51-10 and is incorporated herein by reference.

the plant's spent fuel pools have reached the Hudson River.<sup>3</sup> Similar leaks have been detected at other nuclear power plants in New Jersey (Salem), Illinois, and Connecticut as well as the spent fuel pool at the Brookhaven National Laboratory on Long Island.<sup>4</sup> Indeed, as the NRC recognized in 2006: "Any system containing liquids which originated or have a connection with reactor coolant have the potential to contain tritium. Examples are the spent fuel pool, liquid radwaste storage tanks, refueling water storage tanks, condensate storage tank, turbine sumps, and steam generator blowdown lines."<sup>5</sup>

The recent July 16, 2007 earthquake in Niigata Province, Japan, which damaged the world's largest nuclear power plant, tipped over storage drums, and released radioactive material into the environment, further demonstrates the vulnerability of nuclear plants to natural forces.<sup>6</sup>

In the aftermath of the September 11 attacks and other new and significant information, the NRC's outdated conclusion -- that fuel pool storage risks are insignificant -- is no longer defensible. These facts and the latest July 2007 National Intelligence Estimate's declassified finding that terrorist capability has recovered underscore the importance of New York's request that NRC discontinue its policy of exempting fuel storage from NEPA review.<sup>7</sup>

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<sup>3</sup>See Entergy Indian Point Environmental Report submitted April 30, 2007, at p. 4-87 (stating that Entergy and the NRC have concluded that "... there appears to be some level of contaminated groundwater that discharges to the Hudson River...").

<sup>4</sup>See NRC Office of Nuclear Reactor Regulation, "Spent Fuel Pool Leakage To Onsite Groundwater," NRC Information Notice 2004-05, March 3, 2004 (Salem, New Jersey, Nuclear Power Generating Station); NRC Office of Nuclear Reactor Regulation, "Ground-Water Contamination Due to Undetected Leakage of Radioactive Water," NRC Information Notice 2006-13, July 10, 2006 (discussing leaks at Braidwood, Byron, Dresden, Haddam Neck, and Indian Point nuclear power plants); General Accounting Office, *Information on the Tritium Leak and Contractor Dismissal at the Brookhaven National Laboratory* (GAO/RCED-98-26) November 1997. These NRC and GAO documents are incorporated herein by reference.

<sup>5</sup>See March 2006 NRC Talking Point slide entitled "Tritium at Nuclear Power Plants in the United States; Slide 3: Background" This NRC document is incorporated herein by reference.

<sup>6</sup>New York Times, *Japan Nuclear-Site Damage Worse Than Reported*, July 19, 2007; The Asahi Shimbun, *Radioactive Water Likely Flowed via Electric Cables after Earthquake*, July 23, 2007.

<sup>7</sup>See National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, pp. 32 (flight paths of hijacked planes), 154 (nuclear facilities as targets) (July 22, 2004); Director of National Intelligence, *The Terrorist Threat to the US Homeland*, July 17, 2007 National Intelligence Estimate (unclassified and publicly-released portion) ("We judge the US Homeland will face a persistent and evolving terrorist threat over the next three years.") (available at the White House web site: <http://www.whitehouse.gov/news/releases/2007/07/20070717-2.html>).



## **The National Environmental Policy Act**

The National Environmental Policy Act, 42 U.S.C. §§ 4321-37, requires all federal agencies to examine environmental impacts that could be caused by their discretionary actions. The Supreme Court has identified NEPA's twin aims as (1) obligating a federal agency to consider every significant aspect of the environmental impact of a proposed action and (2) ensuring that the federal agency will inform the public that it has indeed considered environmental concerns in its decision making process. *Baltimore Gas & Electric Co. v. Natural Resources Defense Counsel*, 462 U.S. 87, 97 (1983); see also 42 U.S.C. § 4332(2)(c) (identifying requirements of an environmental impact statement).

The NRC is not exempt from NEPA. In 1971, the D.C. Circuit ruled that NEPA applied to the NRC's predecessor and that the agency must examine its actions and decisions in accordance with NEPA. See *Calvert Cliffs Coordinating Committee v. United States Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971).

In 1996, the NRC determined that the storage of spent radioactive fuel at nuclear power plants around the country did not present any significant environmental impacts. Accordingly, the NRC promulgated generic regulations precluding the consideration of such issues in future licensing actions. 10 C.F.R. §§ 51.53(c)(2), 51.95(c), Part 51, Appendix A, Table B-1 (listing the environmental impacts of spent fuel storage as a generic "Category 1" issue that is exempt from consideration in any individual license renewal proceeding); see also 10 C.F.R. § 51.23 (no discussion of environmental impacts of spent fuel storage in reactor facility storage pools required) (promulgated in 1984, amended in 1990).

Much has changed since 1996. As discussed above, the NRC now is aware that certain spent fuel pools have released radioactive material into the environment.

Additionally, the California petition and the earlier-filed Massachusetts petition have identified other specific risks that have become clear after the NRC adopted the Part 51 regulation in 1996.

NEPA contains a "re-opener" provision. If an agency receives new and

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These documents are incorporated herein by reference.

significant information showing that a previous environmental analysis was incorrect, NEPA requires the agency to reevaluate its earlier analysis. *See Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989); *see also* 10 C.F.R. § 51.92(a). The NRC should honor NEPA's directive and amend its regulations so as to permit environmental reviews of the impacts associated with spent fuel pools.

### **The Ninth Circuit Has Ordered the NRC to Consider the Impacts of Interim Storage of Radioactive Fuel at Nuclear Power Plants**

Last year, a unanimous Ninth Circuit panel ruled that the NRC must examine the environmental impacts resulting from the storage of spent fuel in large metal cylinders known as "dry casks."<sup>8</sup> *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. June 2, 2006). That case involved an application by Pacific Gas & Electric Co. for a NRC license to construct and operate an interim dry cask spent fuel storage installation at the Diablo Canyon nuclear power plant located in San Luis Obispo, California. When the NRC issued the license, a non-governmental organization filed a petition under the Atomic Energy Act and the National Environmental Policy Act that sought to compel the NRC to examine the environmental impacts caused by the continued storage of spent nuclear fuel in the proposed dry cask storage facility. The circuit ruled that the NRC's decision to categorically exclude the potential impacts caused by an attack on the dry cask storage facility from any NEPA analysis was irrational given the NRC's recognition (elsewhere) of the possibility of such intentional actions. 449 F.3d at 1030-31. Six months ago, the United States Supreme Court denied PG&E's petition for certiorari. 127 S.Ct. 1124 (January 16, 2007).

Following the *San Luis Obispo* ruling (and the denial of certiorari), the NRC has announced that it will follow that ruling only within the Ninth Circuit and would not apply it elsewhere in the nation.

### **The NRC Should End its Categorical Exclusion of the Impacts of Spent Fuel Pools from NEPA**

The NRC has an affirmative duty under NEPA and the Council on Environmental Quality regulations interpreting and implementing NEPA to amend its regulations to permit it to fully carry out NEPA's mandate for full public disclosure of reasonably foreseeable environmental effects that may result from federal actions or approvals. The current NRC regulations, which were adopted 11

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<sup>8</sup>Given the delays with the proposed Yucca Mountain facility, the NRC has approved the interim storage of radioactive spent fuel in such casks after the fuel has sufficiently cooled in storage pools. Like the cooling pools, dry cask storage facilities are located outside the containment shells that surround nuclear reactors.

years ago, are no longer consistent with current realities, and preclude the NRC from carrying out NEPA's action-forcing mandate by forbidding it from considering and analyzing reasonably foreseeable significant risks that will affect the environment.

New York is also concerned that the NRC, while disregarding new and significant information that has become apparent since 1996, continues to consider applications for renewing the operating licenses of many nuclear power plants and for early site permits for several new reactors on existing nuclear plant sites. Consistent with NEPA and *Marsh v. Oregon Natural Resources Council*, 490 U.S. 374 (1989), the NRC should revisit its previous conclusion that the environmental risks of storing spent fuel in high-density storage pools are negligible. Moreover, the NRC should implement the Ninth Circuit U.S. Court of Appeals' decision in *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016. There is no reason why states and citizens outside the Ninth Circuit should receive less protection under the nation's laws.

### **Conclusion**

Accordingly, New York respectfully requests that the NRC grant the rule making petitions submitted by California (PRM 51-12) and Massachusetts (PRM 51-10).

Respectfully submitted,

s/

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Dated: August 13, 2007