

**Three Mile Island Alert, Inc.**  
**315 Peffer Street**  
**Harrisburg, PA 17102**  
*tmia.com*

January 16, 2007 (3:17pm)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

January 13, 2007

Secretary, U.S. Nuclear Regulatory Commission,  
Washington, DC 20555-0001  
Attn: Rulemakings and Adjudications Staff.  
E-mail comments to: [SECY@nrc.gov](mailto:SECY@nrc.gov).

**RE: Docket No. PRM-51-10**  
**Three Mile Island Alert's Comments in Support**  
**of the Massachusetts Attorney General's**  
**Petition for Rulemaking**

Three Mile Island Alert, Incorporated ("TMIA" or "TMI-Alert") (Please refer to attachment) supports the Massachusetts Attorney General's Petition for Rulemaking in its entirety. Specifically, we support the Petitioner's requests that the Nuclear Regulatory Commission ("NRC" or "the Commission"):

1. Revoke 10 CFR 51.53(c)(2) and 51.95(c), and Table B-1 of Appendix A to 10 CFR part 51; and revoke 10 CFR 51.23(a) and (b), 51.30(b), 51.53, 51.61, and 51.80(b) to the extent that these regulations state, imply, or assume that the environmental impacts of high-density pool storage are insignificant and therefore need not be considered in any National Environmental Policy Act of 1969 (NEPA) analysis. (1)

**1 Commercial Reactors with Elevated Irradiated Fuel Storage Ponds in Pennsylvania:**

General Electric Boiling Water Reactor MARK I containment structures (24) include: **Peach Bottom 2 & 3.**

General Electric Boiling Water Reactor MARK II containment structures (8 units) include: **Limerick 1 & 2** and **Susquehanna 1 & 2.**

**Please refer to Appendix fore more detailed information.**

Revocation of these regulations impacts nuclear power facilities across our nation. The NRC ignored these concerns and was subsequently found to have legally erred when it refused to address overcrowded pools and other issues of increased security when it licensed onsite dry cask storage of highly radioactive waste in 2004. This matter must be **resolved before *any* license renewal is granted to *any* nuclear facility.**

2. Issue a generic determination that the environmental impacts of high-density pool storage of spent fuel, including the environmental impacts of accidents arising from this storage, are significant.

3. Amend its regulations concerning severe accident mitigation alternatives (SAMAs). The petitioner requests that the body of SAMAs that must be discussed in an environmental impact statement or related supplement or in an environmental assessment, under 10 CFR 51.53(c)(3)(ii)(L) and Table B-1 appendix A to 10 CFR part 51 (Postulated Accidents: Severe Accidents) must include alternatives to avoid or mitigate the impacts of high-density pool fires.

This issue was brought to the attention of the NRC in licensing proceedings regarding onsite storage. The San Luis Obispo Mothers for Peace *et al* prevailed in the U.S. Ninth Circuit Court (No. 03-74628; NRC No. CLI-03-10; CLI-02-23) in its request to require the NRC to hold hearings on issues of security before licensing a high-level radioactive storage facility. No action has been taken by the NRC except for its announcement it study security at six nuclear plants (including the Peach Bottom Atomic Power Station) to determine if security adequate. (2) On December 8, 2006 the nuclear industry added its voice advocating for improved "air security" planning at nuclear reactors. (3)

2 The Ninth Circuit recently held that, as a matter of law, the NRC erred in determining that the National Environmental Policy Act ("NEPA") does not require the agency to consider the potential environmental impacts of terrorist attacks at nuclear facilities.

3 Letter from Marvin S. Fertel, Nuclear Energy Institute to NRC Chairman

Dale E. Klein.

4. Require that NRC licensing decisions relating to high-density pool (HDP) storage of spent fuel be accompanied by an environmental impact statement that addresses the potential adverse consequences of HDP's at that nuclear plant or facility, and provide scientific alternatives for avoiding or mitigating those impacts.

Should the Commission accept the above-captioned petition for rulemaking, it should withhold any decision to renew the operating licenses for nuclear power plant extensions currently before the NRC, until the requested rulemaking has been completed, and until the NRC has completed the NEPA process for consideration of environmental impacts of high-density pool storage of spent fuel at the Pilgrim and Vermont Yankee nuclear plants. (4)

Three Mile Island Alert supports the Massachusetts Attorney General's conclusions, and respectfully requests that the Nuclear Regulatory Commission:

- (a) Consider new and significant information showing that the NRC's characterization of the environmental impacts of spent fuel storage as insignificant in the License Renewal GEIS is incorrect;
- (b) Revoke the regulations which codify that incorrect conclusion and excuse consideration of spent fuel storage impacts in NEPA decision-making documents;
- (c) Issue a generic determination that the environmental impacts of high-density pool storage of spent fuel are significant; and,

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<sup>4</sup> Specifically, TMI-Alert respectfully requests that permission to relicense the Re: PPL Susquehanna LLC Application for Susquehanna Steam Electric Station's Renewed Operating Licenses NPF-14 and NPF-22 Docket Nos. 50-387 PLA-6110 and 50-388 be held in **abeyance** until the requested rulemaking has been completed, and until the NRC has completed the NEPA process for consideration of environmental impacts of high-density pool storage of spent fuel at the Pilgrim and Vermont Yankee nuclear plants.

(d) Order that any NRC licensing decision that approves high-density pool storage of spent fuel at a nuclear power plant or any other facility must be accompanied by an EIS that addresses (i) the environmental impacts of high-density pool storage of spent fuel at that nuclear plant and (ii) a reasonable array of alternatives for avoiding or mitigating those impacts.

Submitted by,

Eric Epstein, Chairman  
Three Mile Island Alert, Inc.  
315 Peffer Street  
Harrisburg, PA 17102

Enclosure  
Attachment

Dated: January 13, 2007

# Enclosure

## Three Mile Island Alert, Inc.

Three Mile Island Alert (TMIA) is a nonprofit citizens' organization formed in 1977 after the construction and licensing of Three Mile Island Unit-1 and after TMI-2 was constructed. TMIA is the largest and oldest safe-energy group in central Pennsylvania. TMIA has enjoyed widespread public and political support in its role as a watchdog of the Three Mile Island Nuclear Generating Station. In the spring of 1987, TMIA was recognized by the Pennsylvania House of Representatives for 10 years of community service. The House, along with the City of Harrisburg, formally applauded TMIA's efforts on behalf of the community at their 20th and 25th anniversaries.

Since the March 1979 accident at TMI-2, TMIA has been actively involved with many Three Mile Island related issues including: active intervener before the Nuclear Regulatory Commission (NRC) in hearings involving safety, technical and managerial issues; monitoring and tracking chronic safety, technical and managerial problems at Unit-1 and Unit-2; tracking adverse health effects as a result of the TMI-2 accident and the normal operation of Unit-1 (since 1974); participating in two radiation monitoring networks; evaluating security problems at the Island; and, providing information, research and educational materials to the general public, media and elected officials.

TMIA also serves as regional clearinghouse on a broad spectrum of issues relating to nuclear power production including problems at Peach Bottom-2 and -3, Susquehanna-1 and -2 and the proposed siting, licensing and construction of a low-level radioactive waste dump in Pennsylvania.

TMIA's policy is generated by a seven member planning council which meets quarterly. TMIA meets regularly with the NRC and Pennsylvania Department of Environmental Protection to discuss issues and problems relating to TMI-1 and -2. The organization has two part-time volunteers who staff the office. In addition, several individuals write, edit and mail TMIA's newsletter which is issued five to six times a year. All of TMIA's funding comes from membership dues, private contributions and fund raising events.

*TMIA's office is open Monday through Friday from 10:00 am to 6:00 pm. Weekend visits are available by appointment. The public and all interested parties are encouraged to stop by or contact the group by phone or mail.*

# Appendix

## Peach Bottom 2 & 3

<u>Reactor</u>	<u>Type/Mfg./AE</u>	<u>MW/Life &amp; Death</u>
<b>Peach Bottom 2*</b>	<b>(BWR/GE/Bechtel)</b>	<b>1,065+/7/74(2014; 2034)</b>
<b>Peach Bottom 3*</b>	<b>(BWR/GE/Bechtel)</b>	<b>1,065+/1274(2014; 2034)</b>

\* **Note:** Connectiv sold 7.5% per unit share of Peach Bottom 2 & 3 to Exelon and PSEG. Although there is joint ownership, 50%/50% Exelon operates Peach Bottom 2 & 3.

Peach Bottom 2 & 3 , are 1,065 megawatt Boiling Water Reactor designed by General Electric and engineered by Bechtel. Both reactors began operation in July, 1974, but had their licenses extended by the Nuclear Regulatory Commission (NRC) and are expected to operate though 2034.

The reactors at Peach Bottom are General Electric (GE) Boiling Water Reactors (BWR). Epstein noted, "The GE-BWR is an obsolete design no longer built or constructed. Many in the industry feel it is inferior to Pressurized Water Reactors. The age of the reactors, and the subsequent embrittlement that ensues, further erode the margin of safety.

Peach Bottom's Mark 1 containment structure has been demonstrated by Sandia Laboratories to be vulnerable during a core melt accident. Epstein explained: "The containment is likely to fail during a core melt accident [like Three Mile Island] allowing radiation to escape directly into the environment." Nuclear industry officials say the problem with the Mark 1 is that it is too small and wasn't designed to withstand the high pressure it is supposed to resist.

## The Susquehanna Steam Electric Station 1 & 2

<u>Reactor</u>	<u>Type/Mfg./AE</u>	<u>MW/Life &amp; Death</u>
Susquehanna 1*	(BWR/GE/Bechtel)	1,032+/6/83-2023
Susquehanna 2*	(BWR/GE/Bechtel)	1,091+/2/85-2025

\* **Note:** PPL owns 90% of both units and the Allegheny Electric Cooperative owns the remaining 10%.

The Susquehanna Steam Electric Station (SSES) uses a Mark II containment system and has experienced numerous problems since 1992:

- March 5 and 9, 1992 - PP&L received \$55 million in a settlement with General Electric over the Mark II containment structure. (“Electric Utility Week” and “Nucleonics Week.”) The rate payers received a \$55 million amortized rebate over five years beginning on April 1, 1992 and ending March 31, 1997. The arrangement was approved by the PUC as part of a Special Base Rate Credit Adjustment (Docket # P91052). Customers’s rates decreased by .59%.
- December 31, 1992 - Two PP&L engineers charged that Susquehanna’s highly radioactive spent fuel pools are unsafe and that if emergency cooling systems fail, a meltdown of spent fuel elements could occur. They told the NRC they reported their concerns to PP&L in March, 1992, and the company dismissed the matter and then tried to fire the engineers. The engineers, Donald Prevatte and David Lochbaum, were consultants for several companies.
- October 1, 1993 - During an NRC presentation, David Lochbaum and Donald Prevatte postulated that failure in spent fuel pool cooling could possibly lead to safety-related equipment failure and a full core meltdown. (See July 30, 1992.

- August 22, 1995 “...while performing a fuel shuffle from the Unit 2 fuel vault to the fuel preparation machine, a new fuel bundle fell into the fuel preparation machine in the spent fuel pool when the grapple separated from the hoist cable. The bundle was being lowered into the machine at the time of the event and the bundle fell approximately 15-20 feet through water until it impacted the lower carriage support plate.” Morning Report-Region I, August 23, 1995.)
- August 5, 2002 - The NRC issued a Severity III Violation for a “mix- up of gases in a spent fuel storage cask at Susquehanna last summer, and the company said it would not contest finding...”, and pay the \$15,000 base civil penalty. PPL spokesman Herbert Woodeshick said: “We have cooperated with the NRC throughout its investigation of this matter, and we respect the commission's decision in determining that the incident constituted a level III violation” (Nuclear Fuel, February 3, 2003).
- August 6, 2003 -The NRC released NUREG 1774 which documented a 60% increase in fuel load drop events from 1993 to 2002. The Report found half of the incidents involved moving fuel assemblies at spent fuel pools, and greater risks for heavy load drops were at Boiling Water Reactors like Susquehanna (The Report #MLO33060160 can be accessed through ADAMS.)

**From:** Eric Epstein <ericepstein@comcast.net>  
**To:** Secretary <SECY@nrc.gov>  
**Date:** Sat, Jan 13, 2007 6:21 PM  
**Subject:** FW: TMIA Supports Mass. Attorney General's Petition for Rulemaking

January 13, 2007

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**Mail Envelope Properties** (45A9695C.186 : 24 : 57734)

**Subject:** FW: TMIA Supports Mass. Attorney General's Petition for Rulemaking  
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**From:** Eric Epstein <[ericepstein@comcast.net](mailto:ericepstein@comcast.net)>

**Created By:** [ericepstein@comcast.net](mailto:ericepstein@comcast.net)

**Recipients**

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TMIA supports Mass. AG	37888	
Mime.822	58726	

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