

## NRR-PMDAPEm Resource

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**From:** Evans, Michele  
**Sent:** Tuesday, July 31, 2012 4:06 PM  
**To:** Salgado, Nancy; Thompson, Jon; Boska, John  
**Cc:** Lund, Louise; Coffin, Stephanie; Banic, Merrilee  
**Subject:** FW: comments Re, July 10 letter regarding emergency enforcement action petition per 10 CFR 2.206

Jon –

[Another one.](#)

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**From:** Scott Price [mailto:sprice@apvonline.org]  
**Sent:** Tuesday, July 31, 2012 3:32 PM  
**To:** Evans, Michele  
**Cc:** Erica Gray; Paul Gunter  
**Subject:** comments Re, July 10 letter regarding emergency enforcement action petition per 10 CFR 2.206

Michele Evans, Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulations  
United States Nuclear Regulatory Commission  
Washington, DC 20555-0001  
By Email: [Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)

Ms Evans;

I am responding on behalf of the Alliance for Progressive Values with regard to the United States Nuclear Regulatory Commission (NRC) correspondence of July 10, 2012 advising of us of an opportunity to comment on the agency's staff proposed partial Director's Decision on the joint petition of October 20, 2011 for emergency enforcement action per 10 CFR 2.206 for the post-August 23, 2011 earthquake, restart and operation of the North Anna nuclear generating station in Mineral, Virginia.

Our membership takes very seriously the potential for negative outcomes at the North Anna facility, both as a result of the earthquake of August 2011 and in the surety of other natural disasters or man-made events that will occur during the extended life span of the reactor and the arrangements for containing the nuclear waste stored on site. It was with these concerns in mind that APV signed on to the original October 20 joint petition. The subsequent proposed Director's decision of July 10<sup>th</sup> 2012 does not alleviate these concerns. The majority of our members live in the Richmond Virginia metropolitan area, forty (40) miles from North Anna as the crow flies. Along with our co-petitioners we continue to have serious questions about the safety and operation of the plant and the preparedness of the facility for another natural disaster, especially one which interrupts power at the plant for a significant amount of time. I would like to refer you to the comments on proposed Director's

decision submitted by Mr. Paul Gunter, Director of Beyond Nuclear, who I believe accurately describes APV's concerns as well in his comments which I include here verbatim in italics.

*Action Item 7; The licensee needs to address the possibility of both boildown and rapid drain down events at the North Anna 1 and 2 spent fuel pools.*

*Action Item 8; The Long-term storage of spent fuel in the spent fuel pool at North Anna 1 and 2 and at the North Anna ISFSI (Independent Spent Fuel Storage Installation) poses challenges to the public health and safety.*

*Action Item 9; "Hardened On Site Storage" strategies for spent fuel should be used at North Anna 1 and 2.*

*Action Item 12; Concerns exist about damage to the structural integrity of the spent fuel pool structure at North Anna 1 and 2, as represent on pages 41 and 42 of the NRC staff's technical evaluation for the restart of North Anna 1 and 2, November 11, 2011.*

*The NRC states with regard to all of the above items,*

*"In reviewing this concern, the NRC staff noted that out of the 12 concerns accepted for review, the NRC is currently reviewing six concerns as part of the lessons-learned from the Fukushima event. At the time of this partial DD (Director's Decision) the NRC staff is still in the process of reaching a decision on this concern and resolution of this issue is forthcoming. The NRC staff will provide periodic status updates to the petitioners concerning progress on its resolution."*

*Beyond Nuclear takes this opportunity to identify two related issues and ongoing actions that pertain to the onsite storage of high level nuclear waste at the seismically active North Anna nuclear power station.*

*1) The NRC Japan Lessons Learned Directorate Compliance with NRC Order 2012-049 Modifying Licenses with Regard to Requirements for Mitigating Strategies broadly addresses strategies for developing, implementing and maintaining reactor core cooling, containment and spent fuel pool cooling in a three phase approach basically; 1) using installed equipment, 2) bringing in portable equipment and; 3) indefinite sustainment using off site resources.*

*Specific to the spent fuel pool issue, EA-12-049 at 4.0 lays out the "Spent Fuel Pool Cooling Strategies." [\[1\]](#)*

*Beyond Nuclear notes that the focus of this action is on utilizing existing fire protection equipment rather than enhancing and maintaining emergency back-up power (AC and DC) as a Class E-I system for maintaining reliable spent fuel pool cooling during sustained station blackout conditions. Beyond Nuclear maintains that allowing the spent fuel pool to boil off and falling back to providing reliable make up water capability still introduces potential unintended consequences from the condensation of*

*water in the boil off process. These unintended consequences can include the precipitation leading to the failure of electrical circuits, sump clogging and other adverse impacts.*

*Beyond Nuclear further notes that none of these actions involve Dominion Nuclear reconfiguring the current high density storage spent fuel inventories of Units 1 and 2 to open frame, low density storage by accelerating the transfer of irradiated fuel > 5 years to independent dry storage casks in Hardened On Site Storage configurations which Beyond Nuclear continues to encourage. Thus, EA-2012-049 fail to address the more fundamental problem of over crowded high density storage of high level radioactive waste in the spent fuel pools.*

*2) The Japan Lessons Learned Directorate Compliance with Order EA- 2012-051 Spent Fuel Pool Cooling focuses on simply enhancing spent fuel pool monitoring instrumentation and similarly fails to address the much more significant and fundamental problem of over crowded high density storage of high level radioactive waste in the Unit 1 and 2 spent fuel pools. [\[2\]](#)*

*These Orders constitute the NRC and industry actions (including Dominion) and commitments and simply focus on make-up water capability and enhancing spent fuel pool instrumentation.*

*Beyond Nuclear finds these Orders fundamentally defective and as such do not constitute sufficient and adequate enforcement action as requested by the petitioners in their October 20, 2011 as supplemented. Spent fuel pools in nuclear power reactors were designed for temporary storage only and to store only a small fraction of what they currently hold. The failure to establish a scientifically accepted and licensed nuclear waste management strategy has resulted in North Anna 1 and 2 as at other U.S. plants containing several times as much spent fuel as the one at Fukushima's Unit 4, and stored in a densely packed configuration that would be harder to cool in the event of a rapid loss of pool water. The emergency enforcement actions sought by the petitioner(s) is that the spent fuel pool hazard be decreased by accelerating the transfer of irradiated fuel > 5 years out of the reactor in dry storage, thereby reducing the density of the fuel remaining in the pools. To the contrary, NRC has instead assigned accelerated transfer of spent fuel to dry storage issues to Tier 3 - effectively placing it at the lowest priority. Moreover, the staff has determined that the current regulatory approaches to these issues are acceptable (including maintaining high density storage in spent fuel pools) only to "review" new information as it becomes available as a result of specific ongoing activities to confirm this conclusion and gain additional insights.*

*In fact, the Orders do not demonstrate what effectively can be done if the newly ordered spent fuel pool monitors show that the level is (not) adequate to support operation of the normal fuel pool cooling system, level is (not) adequate to provide substantial radiation shielding for a person standing on the spent fuel pool operating deck, and level where the fuel remains covered and actions to implement make-up water addition should not longer be deferred." (Order, Appendix 2)*

*Beyond Nuclear maintains that jury-rigged systems may not be adequate and fail to add water to an affected pool in sufficient quantity to prevent a pool fire. Therefore, reducing the probability of a pool fire should be NRC's top priority by maintaining reliable cooling functions. Beyond Nuclear supports and maintains the argument that the most effective and reliable measure to prevent a pool fire would be to reconfigure and re-equip the pool with low-density, open frame- racks.*

*Therefore, Beyond Nuclear submits that NRC's assumptions about North Anna's operator's (as generically applicable to all US reactor operators') capability to mitigate an accident as presented in EA-2012-049 and EA-2012-051 are unrealistically optimistic and unreliable. The operator's ability to carry out mitigative measures can be severely degraded in an accident environment involving fuel damage. Therefore, Beyond Nuclear maintains the argument that the aforementioned Orders as referenced must be supplemented as part of a Tier 1 strategy to include a requirement for open-frame, low-density pool storage and place assemblies > 5 years out of the reactor in dry casks.*

*Therefore, Beyond Nuclear does not find the NRC staff response of July 10, 2012 to adequately or acceptably address its request for emergency enforcement action at the North Anna Nuclear Generating Station as pertains to spent fuel storage on a seismically active site.*

The Alliance for Progressive Values concurs with Mr. Gunter and Beyond Nuclear that the NRC has yet to adequately address the fundamental issues laid out in the original petition and we would be unable to accept the Director's decision as proposed.

Sincerely,

Scott Price

Public Policy Director,

Alliance for Progressive Values

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Richmond Va. 23221

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**From:** Evans, Michele

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