

## HLWYM HEmails

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**From:** Dennis Galvin  
**Sent:** Thursday, February 09, 2006 6:01 PM  
**To:** 'OPOVETKO.  
**Cc:** 'Marissa Bailey'; 'Yong Kim'  
**Subject:** Re: PPIR section on neutron absorbers  
**Attachments:** GSI-196 Status Report 092805.pdf; GSI-196 Status Report 112205.pdf

Oleg and Yong,

I have attached two reports on the Boral Issue and GSI-196. From a quick review of the reports, it appears that the issue is still active. Also from the Office of Research (RES) Operations plan, RES is planning on spending 0.5 FTE on the issue in FY2006 and \$250K and 0.5 FTE on the issue in FY 2007. This would indicate this is an active issue. My recommendation would be to monitor the progress made by RES. Raji Tripathi (415-7472) is the project manager for GSI-196.

The issues we currently have should be retained. If you think there is a more logical means of addressing them now that we have PPIR 10, I am open to it. DOE in public presentations that for planning purposes assumes 10% of the spent nuclear fuel could be repackaged in some sort of pool into a waste package. We are also not sure how much fuel currently at ISFSI's will be repackaged at reactors. Therefore, transportation casks with Boral may be flooded at the GROA. We also still need to understand the performance of Ni-Mo-Gd alloy as a neutron absorber in a potentially flooded waste package in the GROA.

I will review the integral draft report when it is prepared.

thanks,

Dennis

>>> Oleg Povetko  
Dennis,

> 02/09/06 12:49 PM >>>

I was assigned to write two PPIR criticality sections 3.4.1, Approach to Preclosure Criticality Safety and 3.4.2, Neutron Absorber Materials.

I intend to cover neutron absorbers briefly in section 3.4.1 and eliminate section 3.4.2 for the following reasons:

- it corresponds to PPIR Topic 4, the Topic's concern is boral plates integrity and GI-196. To my knowledge, no work has been done within this scope.
- Neutron absorber is expected to be a TAD canister integral component, therefore the TAD canister section in future revisions of PPIR would be a natural place for the Topic
- DOE indicated that it will use Ni-Mo-Gd alloy as neutron absorber in waste packages and DOE canisters. If DOE will select wet transfer, then, boral plates application would be very limited and potentially, no boral plates might be used at all at GROA.

Please let me and Yong know your opinion on this.

Oleg.

**Hearing Identifier:** HLW\_YuccaMountain\_Hold\_EX  
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**Subject:** Re: PPIR section on neutron absorbers  
**Sent Date:** 2/9/2006 6:00:38 PM  
**Received Date:** 2/9/2006 6:03:26 PM  
**From:** Dennis Galvin

**Created By:**

**Recipients:**

"Marissa Bailey"  
Tracking Status: None  
"Yong Kim"  
Tracking Status: None  
"OPOVETKO."  
Tracking Status: None

<OPOVETKO.>

**Post Office:** NRNWMS05.NRC.GOV

| <b>Files</b>                     | <b>Size</b> | <b>Date &amp; Time</b> |
|----------------------------------|-------------|------------------------|
| MESSAGE                          | 2183        | 2/9/2006 6:03:26 PM    |
| GSI-196 Status Report 092805.pdf | 502494      |                        |
| GSI-196 Status Report 112205.pdf | 28575       |                        |

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