

Lupold, Timothy

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**From:** Rezai, Ali  
**Sent:** Wednesday, October 12, 2011 2:45 PM  
**To:** Hills, David; Neurauter, James  
**Cc:** Lupold, Timothy  
**Subject:** RE: Davis-Besse shield building crack (identified during RPV head replacement)

Dave or Jim,

I suppose the cracks that are being referred to, in this email, are surface cracks visually detected on the surface of concrete wall of concrete shield building, possibly on the outside wall surface. These surface cracks may be thru-wall or partially thru-wall cracks. They are not concrete delaminations.

Is this a correct interpretation of your email?

Thank you for your time and cooperation. Please email me any photos taken and any assessment made as soon as they become available.

Regards,  
ali

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Ali Rezai, Ph.D.  
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Nuclear Regulatory Commission, Mailstop: O-9 H6,  
Washington, DC 20555-0001

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**From:** Hills, David  
**Sent:** Wednesday, October 12, 2011 8:22 AM  
**To:** Lupold, Timothy  
**Cc:** Rezai, Ali; Neurauter, James; Sanchez Santiago, Elba  
**Subject:** RE: Davis-Besse shield building crack (identified during RPV head replacement)

Tim,  
O.K. Thanks. I'll let Jim Neurauter, our onsite inspector, know the resource is there if he needs to consult.  
- Dave

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**From:** Lupold, Timothy  
**Sent:** Wednesday, October 12, 2011 6:26 AM  
**To:** Hills, David  
**Cc:** Rezai, Ali  
**Subject:** RE: Davis-Besse shield building crack (identified during RPV head replacement)

Dave, this is out of my area of expertise and responsibility. However, I do have one guy who is very familiar with NDE applications related to concrete. If you need any expertise in that area, let me know.

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**From:** Hills, David  
**Sent:** Tuesday, October 11, 2011 3:51 PM  
**To:** Lupold, Timothy; Mitchell, Matthew; Khanna, Meena; Murphy, Martin; Dennig, Robert  
**Subject:** FW: Davis-Besse shield building crack (identified during RPV head replacement)

D/ (14)

FYI – See below. Jim Neurauter is on site meeting with licensee on this later today and then heading out to get some pictures. So hopefully, we should have more detailed info tomorrow. Expect quite a bit of public interest given this is Davis Besse and also the previous experience at cutting a containment access hole at Crystal River. If this is something you want to be involved in and/or kept in the loop on, let me know.

Dave

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**From:** Cameron, Jamnes  
**Sent:** Tuesday, October 11, 2011 1:03 PM  
**To:** Mitlyng, Viktoria; Satorius, Mark; Pederson, Cynthia; West, Steven; Shear, Gary; OBrien, Kenneth; Holmberg, Mel; Neurauter, James; Kimble, Daniel; Hills, David; Wilson, Adam; Steffes, Jakob  
**Cc:** Chandrathil, Prema; Stone, AnnMarie  
**Subject:** RE: Davis-Besse shield building crack

Vika,

We were notified regarding the shield building late yesterday afternoon/early evening. It was discovered while they were making the access point in the shield building, and only a small portion of the crack is visible from the outside surface.

We are currently awaiting the utility's evaluation regarding the age and nature of the crack. Due to its small size, it is difficult to see unless you are very close to the shield building. We will be evaluating the licensee's assessment, as well as conducting our own assessment. The crack is not an immediate safety concern, as the shield building does not provide protection from radiological releases in an event, it provides protection to the containment building from external hazards.

We are coordinating with DRS, Jim Neurauter will be onsite later today, and will include this issue in the scope of his inspection.

The issue is not similar to Crystal River, where in their case, the concrete structure forms the containment building along with the steel liner. At Davis Besse, the steel containment is a separate structure approximately 5 feet inside the shield building. There is actually an access area between the containment building and the shield building.

It is not currently known whether the crack would be a restart issue. One of the aspects the utility and we have to evaluate and assess is the potential extent of condition...what is the likelihood of additional cracks and what might their impact be.

I'm not sure we can give you any more specifics until our technical experts have a chance to evaluate the licensee's assessment. We may be able to give you an update later tomorrow. At this time, we are not proposing to conduct a special inspection; however, this option is always available to us if additional significant information becomes available.

We'll update you tomorrow.

Jamnes

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**From:** Mitlyng, Viktoria  
**Sent:** Tuesday, October 11, 2011 10:51 AM  
**To:** Satorius, Mark; Pederson, Cynthia; West, Steven; Shear, Gary; OBrien, Kenneth; Cameron, Jamnes; Holmberg, Mel; Neurauter, James; Kimble, Daniel; Hills, David; Wilson, Adam; Steffes, Jakob  
**Cc:** Chandrathil, Prema  
**Subject:** Davis-Besse shield building crack

All-

We spoke to FENOC's Director of Communications and were told the company would be calling the media to talk about the crack to prevent the news from "leaking out" and forestall accusations of hiding this from the public. They won't be issuing a press release.

We need to be ready with key messages by this afternoon about what actions the NRC is taking and how the agency is on the job protecting public health and safety.

Below are the questions we will get asked. We understand we don't have answers to all of them and look to you to let us know what we can address today.

We already Spoke to Adam and he gave us the information he had and was very helpful.

- Is the NRC aware of the crack?
- What can you tell us about the crack?
- When was the NRC informed about the crack?
- How come the NRC hasn't communicated to the public on this issue?
- What actions is NRC taking?
- How come there is no event report on this issue? Is it reportable to the NRC?
- Are there regulatory requirements on the condition of the shield building?
- Does it have to be inspected?
- How come neither FE nor the NRC were aware of an 8-foot long crack?
- Was it visible from the outside? So, no one was looking?
- How vulnerable does it make the containment and the reactor?
- Was the reactor safe when it was operating with a crack in the shield building?
- And if the answer is yes, how can you say that? What if there was a terrorist attack by flying a plane into the reactor?
- Is the NRC concerned about this issue? If not, why not?
- Does having the crack undiscovered constitute a violation?
- What is the NRC doing about this problem?
- Are there extra inspections? Does NRC have inspectors; inspections specifically to look into this?
- Is there going to be a special inspection into this problem?
- Is the public and the environment safe with the hole in the containment vessel and the shield building plus a crack in the shield building?
- Is the plant going to delay its head replacement activities and inspect the rest of the shield building for cracks?
- Do they have to fix this before restarting?
- What does it say about their safety culture?
- Did they conceal this from the NRC and the public?
- How is this different from Crystal River?
- How many other plants have had this problem? How was this problem discovered and addressed at other plants?

Thank you.

-Vlka

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