

## Masters, Anthony

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**From:** Lake, Louis *R*  
**Sent:** Wednesday, December 02, 2009 3:51 PM  
**To:** Chou, Rich  
**Cc:** Dan naus; Masters, Anthony; Carrion, Robert; Thomas, George; Franke, Mark; Sykes, Marvin; Ninh, Son; Morrissey, Thomas; Reyes, Rogerio; Chou, Rich  
**Subject:** RE: Monday NCRs  
**Categories:** Perform Review

Rich;

I have seen these attachments and the SIT is following up. The initial info is that they are treating this crack as a separate issue from the de-lamination. The CR De-lamination Project Team will be providing preliminary info on the extent of the crack. Crack width dimensions of .009 and .016 were determined by using a comparator on the core bore sample described below. The engineering evaluation will be performed in the near future.

Let me know if you have any more questions.  
Lou

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**From:** Chou, Rich *R*  
**Sent:** Wednesday, December 02, 2009 9:02 AM  
**To:** Lake, Louis  
**Cc:** Franke, Mark; Sykes, Marvin; Ninh, Son; Morrissey, Thomas; Reyes, Rogerio; Chou, Rich; Powell, Sid  
**Subject:** FW: Monday NCRs

Lou:

I forward the attachments for your information. The average mobility or ratio on the crack area in the first attachment is about 1.30. Per CTL testing engineer, the crack will start to be seen when the mobility or ratio is 0.7 or above. Therefore, the gap of 1/64" identified by the testing and core boring is not matched the crack criteria. Can you ask CTL to do the evaluation why the crack is so small? Is it possible another larger crack nearby and is not identified?

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**From:** Powell, Sid [mailto:Sid.Powell@pgnmail.com]  
**Sent:** Wednesday, December 02, 2009 7:55 AM  
**To:** Chou, Rich  
**Subject:** RE: Monday NCRs

The first file is the scan data for the area below the equipment hatch. The red indicates where the crack was found. The second file is the layout of 180 degrees of the building. The scan data in the first file is the 13' x 42' rectangle below the equipment hatch

Sid Powell  
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**From:** Chou, Rich [mailto:Rich.Chou@nrc.gov]  
**Sent:** Tuesday, December 01, 2009 4:52 PM  
**To:** Powell, Sid  
**Subject:** RE: Monday NCRs

Sid:

Thanks. Do you have any pictures or drawings to show the location?

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**From:** Powell, Sid [mailto:Sid.Powell@pgnmail.com]  
**Sent:** Tuesday, December 01, 2009 12:47 PM  
**To:** Chou, Rich  
**Subject:** RE: Monday NCRs

A detailed discussion has been requested by the Residents for today or tomorrow.

Here is what I know.

1. The area in question is a few feet below the reinforced concrete section near the lower west corner of the equipment hatch. This is on the left side when looking from outside the containment.
2. There is just one small area (square inches) showing the highest IR readings. The core bore was done there and confirmed a crack.
3. The crack is about 8 inches deep from the surface, but is not in plane with the hoop tendons.
4. There is a larger area of about 4' x 4' that shows possible chance of a crack.
5. The whole area that was scanned was 13' x 42' with other areas appearing solid.

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**From:** Chou, Rich [mailto:Rich.Chou@nrc.gov] *RV*  
**Sent:** Tuesday, December 01, 2009 9:39 AM  
**To:** Powell, Sid  
**Cc:** Franke, Mark; Sykes, Marvin; Morrissey, Thomas; Reyes, Rogerio; Lake, Louis; Chou, Rich; Ninh, Son  
**Subject:** FW: Monday NCRs

Sid:

NCR 368389 identified a crack in the containment wall inside the Intermediate Building in the area below the equipment hatch based on the Impulse Response (IR) Testing and confirmed by Core Boring. The Core Boring was in the vicinity of the highest average IR mobility value and the crack width or gap was measured at 0.009" to 0.016" which is equivalent to 1/64". Please provide the picture or drawing to show the exact location and more detail information.

As I understood when I observed the IR testing and discussed with CTL Testing Engineer, he said that the higher value of the IR is the higher or wider gap. There was a maximum gap of 2 and 1/4" identified in the Containment wall. This small gap identified might not be the real size of the gap. It is potentially that there is a bigger gap nearby and is not identified yet.

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**From:** Powell, Sid [mailto:Sid.Powell@pgnmail.com]  
**Sent:** Tuesday, December 01, 2009 8:02 AM  
**To:** Chou, Rich; richchou5@yahoo.com  
**Subject:** Monday NCRs

See attached.

Sid Powell  
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