

**Sengupta, Abhijit**

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**From:** Chou, Rich  
**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  
**Attachments:** 0015\_insideAverage Moblity.jpg; Nov 21 markup - Containment Unfolded Graphics\_IR Mosaic.pdf

*1 page*      *1 page*

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  
SGR Licensing  
x1782

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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.

*P/177*

Sid Powell  
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**From:** Chou, Rich [mailto:Rich.Chou@nrc.gov]  
**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

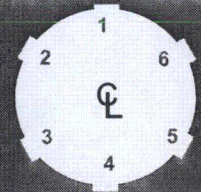
See attached.

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# Containment "Unfolded" – Buttress 2 to 5

Updated Nov 20<sup>th</sup> (Mosaic IR Overlay scale is approximate)



Buttress #2

Buttress #3

Buttress #4

Buttress #5

IR scans completed per PT-407T:  
Blue = no delamination



Actual IR scan output data:  
Blue = no delamination  
Yellow = transition  
Red = delaminated

Drawing scale is not exact

