

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of: Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3)	
	<b>ASLBP #:</b> 07-858-03-LR-BD01
	<b>Docket #:</b> 05000247   05000286
	<b>Exhibit #:</b> RIV000075-00-BD01
	<b>Admitted:</b> 10/15/2012
	<b>Rejected:</b>
	<b>Identified:</b> 10/15/2012
	<b>Withdrawn:</b>
	<b>Stricken:</b>
	<b>Other:</b>

RIV000075

Date Submitted: December 22, 2011

**From:** Sachatello, Ronald  
**Sent:** Wednesday, April 26, 2006 8:43 AM  
**To:** Mayer, Donald M <DMayer1@entergy.com>; ADLER, JOESPH J <adler@tlgservices.com>; Hinrichs, Gary H <ghinric@entergy.com>; ADLER, JOESPH J <adler@tlgservices.com>  
**Subject:** FW: IS THE POOL LEAK OFF COLLECTION BOX EFFECTIVE ?

Matt is right and no one thinks we have all the data, but the last 2 sample data taken on MW-30 were the same low flow sample techniques by the same person so there is at least consistency of two data points that show MW-30 is decreasing within these 2 time intervals. We have to sometimes think positive. That collection box is doing something, and who know what the flow rate was 2-10 years ago at the crack if the liner was full to the top, and had a higher water pressure head driving water outward.

**From:** Sachatello, Ronald  
**Sent:** Wednesday, April 26, 2006 8:07 AM  
**To:** 'mbarvenik@gza.com'  
**Subject:** RE: IS THE POOL LEAK OFF COLLECTION BOX EFFECTIVE ?

Matt:

I perfectly agree there is not enough data to make a trend. They used to say in San Juan Capistrano, California on the hoped for return of the huge swallow bird population that made the town tourist industry rich that, "*one bird doesn't make a summer*". Any comments I send to you are not ascribed to as facts but conjecture.

On the other hand while we believe there could be other leaks in the Unit 2 fuel pool that we can not observe, we should not under-estimate we are now effectively capturing a leak in our metal leak collection box which has at least 12,000,000 pCi/L. My bet the next time we take this sample on Friday it is above 12,000,000 pCi/L. This is not trivial activity. This water, while now small in volume, is not getting into MW-30.

It is possible if the leak that is now being captured in the crack collection box seems small in daily output volume, it could have been higher flow rate in months past if it was caused by pent-up higher elevation water behind the metal pool liner. It is possible that if we had exposed this leak a year earlier the leak may have flowed at a much higher flow rate because of a higher driving water head pressure from behind the liner. The point is we definitely do not have all the facts, but we will continue to investigate.

**From:** Matthew Barvenik [mailto:mbarvenik@gza.com]  
**Sent:** Wednesday, April 26, 2006 7:17 AM  
**To:** 'Sachatello, Ronald'; 'David Winslow'  
**Cc:** 'Mayer, Donald M'; 'Hinrichs, Gary H'  
**Subject:** RE: IS THE POOL LEAK OFF COLLECTION BOX EFFECTIVE ?

Hi Sach,

I will take a look at this some more, but my preliminary thoughts are that we need to be careful that we don't read too much into the "apparent trends in MW-30, 31 and 32. You are correct to look at the precipitation data as one factor impacting the data. In addition, however, we need to differentiate full well purge data from low flow data. These two different, but both valid, sampling techniques can have markedly different impacts on the values obtained depending on the subsurface conditions – unfortunately, this issue follows the "Heisenberg Uncertainty Principle" where the means required to investigate an unknown condition impacts and changes the vary condition that you are trying to understand. In this regard, have we made any additional progress on what might be causing the leak to stop and then start again – I know you guys were looking at the timing of potential water levels changes in the pool?

I will look at this, as well as the other data interpretation questions you have posed, tomorrow. I have another full day meeting again today focused on substantially increasing the staffing on the IP work – resources have already been redirected onto the IP work. The meetings are to bring the additional staff up to speed on what we

know relative to the Site Conceptual Model and what the remaining outstanding questions are, and review of our current direction, etc by a number of other senior level technical staff to "pick apart" what we think we know.  
mjb

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-Proud participant & supporter of the Pan Mass Challenge-

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**From:** Sachatello, Ronald [<mailto:rsach90@entergy.com>]  
**Sent:** Tuesday, April 25, 2006 6:26 AM  
**To:** [mbarvenik@gza.com](mailto:mbarvenik@gza.com); David Winslow  
**Cc:** Mayer, Donald M; Hinrichs, Gary H  
**Subject:** IS THE POOL LEAK OFF COLLECTION BOX EFFECTIVE ?

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**From:** Sachatello, Ronald  
**Sent:** Monday, April 24, 2006 6:16 PM  
**To:** 'saracovelli@gmail.com'  
**Cc:** Sachatello, Ronald  
**Subject:** FW: RESULTS OF PACKER TEST TO DATE ON MW-32

I know you cannot make trends when you have a small amount of data points but I get the sense that activity near MW-30 may be going down based on lower values for MW-30 and MW-32 that cannot be explained by rain dilution as these measurements recently were taken without any rain at all.

We used to have 600,000 pCi/L in MW-30 and recently we see it ranging from about 60,000-180,000 (round numbers).

MW-32 used to be as high as 18,000... is now half that.

Could that stupid collection box which is collecting tritium at 8,500,000 pCi/L be effectively minimizing the ground input in this area surrounding this side of the U-2 SFB ?

In time MW 33,3 4, 35, and 111 should start to show it if they already haven't.

Just a thought...

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**From:** Sachatello, Ronald  
**Sent:** Monday, April 24, 2006 6:15 PM  
**To:** 'saracovelli@gza.com'; 'David Winslow'; 'mbarvenik@gza.com'  
**Cc:** Mayer, Donald M; Hinrichs, Gary H; ADLER, JOESPH J; Sachatello, Ronald ; Lavera, Ronald  
**Subject:** RESULTS OF PACKER TEST TO DATE ON MW-32

Sara:

Please see the attached MW-32 Packer samples you gave to me results. There are a few yet to be counted. Seems pretty homogenous ? <<MW-32 PACKER TEST-MARCH 2006.doc>>



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