

January 24, 2000

Nuclear Energy Institute  
1776 I Street, NW  
Suite 400  
Washington, DC 20006-3708

SUBJECT: CONFIRMATION OF SELECTED SUMP DESIGN SURVEY RESPONSES

REFERENCES: (1) Modeen, D. (NEI), Letter to Marshall, M. (NRC), Subject: Additional Sump Design Survey Results and Feedback on NRC Sump Research Program, Date: September 30, 1999.

(2) Modeen, D. (NEI), Letter to Hannon, J. (NRC), Subject: Results of Survey Conducted on Pressurized Water Containments and Recirculation Sumps, Date: June 9, 1999.

Dear Mr. Modeen:

Thank you for coordinating the collection of responses to the pressurized water reactors sump design survey (References 1 and 2). As we have stated at several public meetings concerning the ongoing PWR sump blockage study, both the NRC and LANL staff have found the information that NEI has collected extremely useful.

We have completed our review of the survey responses. We believe some of the responses given by plants may be inaccurate. During one of the public meetings, Mr. Kurt Cozens of your staff offered to confirm the accuracy of survey responses that we believe may be inaccurate. Enclosed is a list of responses that are questionable.

If you have any questions regarding the enclosed list or would like to arrange a telephone conference to discuss the enclosed list, please, contact me at 301-415-5895 (phone), 301-415-5151 (fax), or mxm2@nrc.gov (email). We appreciate the support that your organization and the PWR owners groups have provided and look forward to a continuing cooperative working relationship.

Cordially,

Michael L. Marshall, Jr.  
Project Manager and Mechanical Engineer

Enclosures:

(1) List of Questionable Responses to Sump Design Survey

CC: J. Hannon, NRC  
R. Elliott, NRC  
D. Rao, LANL  
K. Cozens, NEI

<b>List of Questionable Responses to Sump Design Survey</b>			
<b>#</b>	<b>Plant</b>	<b>Response</b>	<b>Comments</b>
Following a LBLOCA, when does the low pressure safety injection (LPSI), residual heat removal (RHR), and/or recirculating pumps start to draw suction from the sump? {sec}			
1	Calvert Cliffs 1	480 minutes	This seems like too much time.
2	Calvert Cliffs 2	480 minutes	
3	San Onofre 2	0.33 minutes	This seems like too little time.
Following a LBLOCA, when is the maximum containment flood level reached? {sec.}			
4	San Onofre 2	0.5 minutes	This seems like too little time.
How much trash rack is available? {ft. sq.}			
5	St. Lucie 2	883 ft <sup>2</sup>	It appears credit is being taken for gates and other obstacles that are not local to the sump.
What is the hole size in the trash rack? {inches}			
6	Salem 1	0.23 in <sup>2</sup>	This seems too small.
7	Salem 2	0.23 in <sup>2</sup>	
Does the sump have a debris curb? What is the height of the debris curb? {ft}			
8	ANO-2	No Response	Any solid obstruction at the containment floor level, in front of, or under the sump screen can be considered a curb. A good example of this would be the angle iron or channel used to fasten the screens to the floor.
9	Davis-Besse	No Response	
10	Fort Calhoun	No Response	
11	Indian Point 2	No Response	
12	Indian Point 3	No Response	
13	Farley 1 and 2	No Response	
14	North Anna 1	No Response	
15	Nrth Anna 2	No Response	
16	Pt. Beach 1&2	No Response	
17	Surry 1 &2	No Response	
Approach Velocity (Not a Survey Question)			
18	Vogtle	12 ft/s*	Based on screen area reported in survey and pump flow rates reported in <b>GL 97-04</b> , LANL staff calculated an approach velocity for each plant. Some of the calculated values seem too high or too low.  * Calculated by LANL.
19	Indian Point 3	1.4 ft/s*	
20	Callaway	0.05 ft/s*	
How Much Screen Area is Available?			
21	Vogtle	5.84 ft <sup>2</sup>	Screen area reported in the survey seem too high or too low.
22	St. Lucie 2	571 ft <sup>2</sup>	
23	Callaway	692 ft <sup>2</sup>	