

February 12, 2003

NOTE TO: FILE

FROM: Daniel M. Frumkin, SPLB/DSSA/NRR/**RA**

SUBJECT: RECORD OF TELEPHONE CALL WITH SAFE SHUTDOWN FINDINGS TASK TEAM

SSD Findings Team Members: Daniel Frumkin, NRC  
Paul Lain, NRC  
Chris Pragman, Exelon  
Jeanne Lang, NMC  
Ken Sullivan, Brookhaven National Lab  
Peter Wilson, NRC (Not in Attendance)

On February 5, a conference call was held from 9:30 a.m. until 11:30 a.m. to discuss the task of the Safe Shutdown Findings Task Team of the fire protection significance determination process (SDP) which is part of the reactor oversight processes (ROP). A task description was developed by SPSB (Attachment 1) and an agenda was provided to attendees (Attachment 2). These were used as references for this telephone call.

Mr. Frumkin lead the discussion to address the agenda items. The brainstorming was productive and was followed by classifying the degradation levels. This activity was followed by binning the brainstormed items into the classification bins (degradation levels). Attachment 3 is a summary of the discussions that occurred during the meeting.

The first two items of the team assignment were discussed. The third item, defining quantification of the findings was put off, since the SRA (P. Wilson) was not available for the call. Also included in Attachment 3, are some of our discussions on quantification of degradations.

At the close of the phone call, Mr. Frumkin committed to send out the discussion of the findings and the team's conclusions. Team members should comment on Attachment 3, by email to the entire team. It was pointed out that one team member would have difficulty attending a meeting at NRC headquarters due to company travel restrictions. The target completion for a draft resolution to the team assignment is March 7<sup>th</sup>, with submission to SPSB on March 14<sup>th</sup>.

CONTACT: Daniel Frumkin, NRR/DSSA/SPLB  
301-415-2280

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Attachment 1:

**Team Assignments**  
**Team E: SSD Findings Team**  
**1/14/03**

**Lead Coordinator:** Dan Frumkin, 301-415-2280, dxf1@nrc.gov

**Overview of Assignment**

The SSD Findings Team must define how findings related to the plant's post-fire SSD analysis and provisions are to be treated. This involves the following activities:

1. Define the types of findings that fall into the SSD category
2. Define degradation levels for each type of SSD finding
3. Define a approach for incorporating SSD findings in the Phase 2 quantification

**Team Task: Define SSD Findings**

The team should define a list of the types of findings that fall under the SSD category. This may include items such as deficiencies in the safe shutdown equipment list, failure to identify required or related circuits, failure to address alternate shutdown human action time lines, etc.

**Team Task: Define Degradation Levels**

For each type of SSD finding that may be encountered, a degradation rating is needed. The team must define degradation levels and criteria applicable to a degraded fire barrier systems. Key questions/issues:

1. How many degradation levels are to be defined (two or three)?
2. What are the criteria/indicators for each degradation level?

**Team Task: Define Quantification Approach**

The Phase 2 quantification must consider the risk impact of a SSD-related finding. In general, this will impact the options available for safe shutdown and/or the reliability of certain SSD actions. Key questions/issues:

1. SSD findings may impact the systems and actions that should be credited in the plant SSD response analysis. This task generally falls to the plant systems notebooks. How will SSD-related findings be incorporated into the analysis?

Attachment 2:

Agenda for Phone Call

9:30 a.m. Introductions and overall discussion of the issues to be resolved

9:45 a.m. Brainstorming safe shutdown findings

10:30 a.m. Summarize the SSD findings

10:50 a.m. Define if there will be 2 or 3 degradation levels

11:05 a.m. Bin summarized SSD findings into the degradation levels

11:20 a.m. Action items and assignments to individuals and discussion of next phone call/meeting

Attachment 3:

Classification Levels	
High	"Precludes Safe Shutdown"
	<ul style="list-style-type: none"> <li>• No way for operator to diagnose (bad procedure, no indicator/instrumentation)</li> <li>• No way for operator to operate SSD system (manual actions not feasible)</li> <li>• Place plant in unrecoverable condition</li> <li>• Lack of alternate shutdown procedure</li> <li>• Reaching into energized equipment</li> </ul>
Moderate	"Recoverable but dicey"
	<ul style="list-style-type: none"> <li>• Incomplete instructions for complex tasks</li> <li>• Manual actions in first 30-60 minutes of time sequence outside control room (other than Alt SSD Panel)</li> <li>• Inadequate staffing</li> <li>• Inadequate staff training</li> <li>• Tools not staged or where intended by procedure</li> <li>• Actions in environmentally hazardous areas</li> <li>• Operators using normal procedure when fire procedure has special requirements</li> <li>• Climbing ladders</li> <li>• Poor labeling</li> <li>• Significant modification</li> </ul>
Low	"Action readily apparent, easily performed"
	<ul style="list-style-type: none"> <li>• Typographical procedure errors</li> <li>• Plenty of time (by analysis)</li> <li>• Poor procedures, but common actions</li> <li>• Straightforward actions, pulling fuse block, installing staged jumper with clear directions</li> </ul>

Some other thoughts were:

- Alternate shutdown requiring actions outside of control room and alternate shutdown panels, although not a finding, are challenging and may not be giving the same credit in risk space as a low degradation.
- Areas with exemptions/deviations/SER's, although not findings, may not be credited with full credit in risk space, as a plant with no exemptions/deviations/SERs.
- If an analysis shows that a barrier should have been installed, this may be better handled by the fire barrier degradation path through the SDP.
- High degradation would be quantified as, 'no credit.' A factor of ~1.
- Moderate degradation would be quantified as, 'partial credit.' A factor of between ~0.75 and ~0.9. (It was not clear if this was a success factor or failure factor, does 0.9 mean 1 in 10 of success or 9 in 10 of success?)
- Low degradation quantification was not performed.