

September 21, 2000

MEMORANDUM TO: Gary L. Shear, Chief
Plant Support Branch

FROM: James E. Foster **/RA/**
Emergency Response Coordinator

SUBJECT: AFTER EXERCISE REPORT - PALISADES EXERCISE

Attached are the critique comments received regarding the Palisades exercise, conducted June 6, 2000. Rather than sorting out comments, this list represents the total comments received, either verbally, at the exercise critique meeting, or in writing. As we developed a considerable number of "lessons learned," the list is extensive.

All comments which pertain to NRC controllable actions, marked with a bullet, have been entered into a database for evaluation and tracking. Action has begun on some of the items; some items will require further evaluation to determine if action is needed or feasible. I have commented on items in the database where it appeared appropriate, and suggested possible courses of action.

To the best of my knowledge, we have not previously utilized such a database to track critique items, and I view it as a significant program enhancement.

A printout of the database is attached.

Attachment: As stated

cc w/att: J. A. Grobe

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cc w/att: J. A. Grobe

DOCUMENT NAME: G:\DRS\PALISADES EXERCISE RPT.WPD

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII						
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DATE	9/21/00						

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PALISADES EXERCISE CRITIQUE COMMENTS

LICENSEE PERFORMANCE:

Overall, the exercise was well organized and the licensee was very accommodating and appeared to be very knowledgeable regarding their roles and responsibilities.

Senior licensee management considered the exercise with NRC personnel as a positive learning experience. The licensee indicated that NRC staff in the CR Simulator, TSC, and EOF conducted themselves professionally in their interactions with licensee responders. The licensee acknowledged that rad protection escort would be provided in a real event for NRC responders going from the gatehouse to the TSC.

Licensee was effective in setting us up in the TSC and providing us an initial briefing. Telephones and work-space was readily provided by the licensee.

There was no easy way to obtain plant rad conditions -- no status board or area with plant radiation survey information.

BASE TEAM:

- RDO and BC should be involved with initial RA briefing.
- Noise level in bubble was, at times, high. Some communications should have been conducted outside of the bubble.
- OEDO and NRR Director briefing should have been done after Alert declared and decision of going to Monitoring phase of normal mode. TA briefing?
- Lack of site books. (Site team allegedly took all copies). This hampered base team who needed some basic info such as how many RCPs and their designations, etc.
- Did not get a PN out. No early public information.
- ERDS was not functioning properly. (Determined that HQ left training file in place, confusing system operations).
- Approx. 1 ½ hours into event base team did not have good info regarding what was going on. Level of frustration due to lack of system info (site books), ERDS not functioning properly and incomplete info from the licensee.
- Status boards were not very useful. Contained very little information.
- HQ took lead for initial activation before all counterparts had been briefed. HQ said they were staffed. However, I noted that regional people were briefing their counterparts after HQ announced that they had the lead. I did not notice anyone using turnover sheets.
- HQ issued 2 press releases without coordinating with RIII even though RIII was in charge at the time

- I did not see people reviewing EALs or the RTM after we heard that 2 containment monitors were in alert.
- Problem with the portable mike.
- Base team could have benefitted from more frequent briefings by the BTM and/or other managers.
- Did not get good operational/event information from licensee.
- Did not get good rad info from licensee. Bubble personnel would have benefitted from more briefings on the rad data than we did have and also the shift in wind conditions.
- Need map overlays with the geo-political boundaries such that we can understand the sectors that the state and locals would be using.
- Messenger sheets not being used.
- Make sure all IRC phones have orange stickers with HQ phone numbers.
- There was feedback on management bridge.
- We were unaware that base team would not have PA person present.
- Need to update state liaison contact lists.
- Ensure that both clocks have accurate time. During exercise it was noted that clocks were 1-2 minutes different. Can we get digital clocks to make it easier?
- Too long to Standby mode, need decisionmaking cards.
- Review bubble attendees and information board layout = info.
- RDO included in briefing of the RA.
- More frequent training.
- Information expectations IRC-RW-licensees.
- RP to brief EDO/NRR/NMSS
- PAO?
- Site Books in IRC.
- Simulation briefing of site team at NP ...would be briefed on the way.

- Transition to AIT/IIT
- Transition to 0350 procedure.
- Suggest that additional training be provided at upcoming Training Seminar in October regarding lessons learned from overall critique and resulting procedure changes.
- I strongly recommend that a computer be installed in the IRC Resource Manager area. It would be very beneficial for obtaining (in a reasonable time period) travel info, road conditions (construction, closed, traffic flow) weather info, maps, and trip routing information, (to name just a few reasons).
- One of the situations we came across was that we needed to develop an alternate route for the site team. The maps we had available to us in the IRC were not very helpful and did not contain as much detail as we wanted.
- I also recommend a refresher training session for Resource Managers, discussing the various response modes and RIII/HQ's role in each.
- Greater focus is needed by the Reactor Safety Manager (RSM) on identifying what information is needed by the Reactor Safety Team (RST). The RSM procedure has a weak statement about "advising" the board plotter on information to be obtained, this should be more clearly identified as a priority.
- Status board plotter should be on the ENS line.
- The magnetic plant parameter tags on the status boards did not work well for us. We need a PWR board and a BWR board. These could be generic and then with a single reference page the plotter could customize the board to a specific facility. The RSM could then annotate on the board or on the reference page which parameters are of interest to be plotted. The paper sheet could then be shared with the plotter and the ENS communicator (and possibly the licensee's ENS communicator) for the routine updates.
- Consider moving the RSCL communicator over near the ENS communicator and have that person be the team leader for info gathering whether it be ENS, ERDS, or RSCL. This info team leader reports to the RSM.
- Have a larger monitor for ERDS info in the bubble (we used to have that).
- Have a think tank team leader reporting to the RSM.
- Have the SDP work sheets available.
- Have the SRA as a member of the think tank (possibly the team leader of the think tank unless analysis effort is excessive).

- Need larger team size for the exercise. We fell into the trap of making do because we were always about to move to "standby".
- I was PE acting as Branch Chief (BC) for Mike Jordan who was a player at or near the site. I reported to Geof Grant and we responded to the IRC as planned with thoughts of briefing the RA. In the past, I have served as a communicator, status board keeper, and events board keeper. I noted that the RA and a number of players and an evaluator were in place and after observing for a short while, I realized that I had not been trained on BC expectations in this type of activity. After a short period, I was asked to draft a PN on the exercise and had some problems finding a computer for administrative use and after some hacking finally found an electronic PN blank form. After a number of drafts and because conditions were changing so rapidly, I think I wrote 3-4 versions and printed at least 2 versions however, they were all behind the current activities. I was also at a disadvantage because there was no one from Public Affairs in the office for assistance.
- Some information could have been passed on from the BC to the PE prior to the BC's departure. However, some training on expectations of a PE while acting as BC in an event or exercise would be helpful. This especially important with regard to what IRC equipment we are expected to know how to operate such as computer data systems and what information we are expected to have available.
- ERDS did not function as needed during this exercise. While the current time stats updated periodically, the historical data that should have been viewed on 15 minute intervals was always displayed as question marks. This was brought to HQ attention and it was identified that after Palisades practiced on the 5th, HQ failed to delete the practice file, therefore, when the real exercise was in progress there was no place for the trend data to be stored. It was also identified that the only way to fix the problem was to shutdown the entire system, delete the offending file(s), and restart. This was eventually done at approximately 11:40 a.m. Central time and the system was available again to viewers/users at approximately 12:10 Central time. The deletion and re-boot did not fix the problem and until I was released from the IRC at approximately 12:20 or so ERDS was still not functioning. The work around that was implemented at the Region was to print a set of three column reports every 10 minutes and provide them to the plotter so he could update the plot board.
- I moved several screens up to the large monitor so the team could view the data. What I found is that any information placed on that screen is unreadable from any location in the room. From where I was sitting I could barely read the words, but the numbers or graphs were completely unreadable. I suggest we either: 1) get a new monitor, 2) increase the font size used by the PC to display the data, or 3) look into other options available to project this information.
- Better communication flow needs to be done from and to bubble. Significant delays occurred regarding meteorological data changes; rad levels, etc. Status board needed updates more frequently.

- The communication guidance for communicators (and others) was missing from IRC positions where it was needed.
- Decisionmaking cards were not available to aid in the mode decisionmaking.
- Status board plotters should have telephone headsets to enable info. gathering.

SITE TEAM:

- The licensee did not have readily available the telephone number to the State EOC. It took them some time to provide that telephone number to me so that I could communicate with Roland Lickus, the NRC Government Liaison Manager, at the State EOC.
- Our HQ participants, in particular my counterpart, did not join the exercise until late and consequently when I began play at the EOF by calling my counterpart in HQ, he could not give me any information regarding plant status, etc.
- We need communications capability between vehicles as we proceed to the site.
- Site team participation time was limited.
- Cell phone would not work properly at the EOF (licensee indicated that this was a “dead” area for cell phones).
- HQ should receive a “courtesy call” from the Region regarding the transfer of lead responsibility an hour in advance . (This is information that is unnecessary and distracts the Status Summary Officer)

NRC PERFORMANCE:

Overall, I felt that our performance was good. We anticipated plant problems, and we communicated acceptably on the PMCL.

- We should develop a better protocol for pre-site team communications. In a real event, I envision that Messrs. Caldwell and Dyer would be standing together and would have all of the same information. In our case, we obtained bits of info via. C. Pederson, who was a controller/evaluator. This doesn't seem very effective, and it potentially disrupts the evaluator from her role.
- Some of the exercise coordination could have been better explored via a more thorough pre-exercise players brief. We should also be discussing what is simulated and what we really intend to perform (dosimetry distribution, KI, etc.). The briefing package was very comprehensive, but a player briefing is still very important.
- In preparing for the exercise, we could not find any ion chambers in the Region III instrument storage areas. In a real event, I think we would be looking to take a couple of these with us.

- I think the site team may have driven through the plume. Prior to our departure, we were told that there was not a release in progress. However, conditions were ripe for a release: SG tube rupture, stuck open atmospheric relief valve, and rad monitor alarms in containment. I asked the question as to how they could say no release with the radiation monitors OOS at the release point, but I don't think that we received an adequate answer.
- I do not believe that we simulated sending the mobile lab to the site. I believe that a function of the mobile lab is still for emergency response. This is a perfect time to ensure that it is in an adequate state of preparedness.
- I do not remember any discussions related to KI distribution.
- I'm not sure that the ERC should have a knowledge of the scenario. On a couple of occasions, he mentioned that the time line/events were somewhat off schedule or unplanned. I don't know that this should be communicated to the players. Too much insider info.
- NRC telephone headsets did not work with the licensee's phone system. Apparently, there is a dip switch on the headsets that can be reset (per T. Ploski), but we did not have time to fiddle with it. Senior resident inspector suggested that we purchase one of the headsets for each site, so that they could find the right setting and could use it for the initial stages of an event.
- We need to develop a better dosimetry log. The old form is cumbersome and does not provide the necessary information.
- The position procedures are not very useful. We need better procedures or some additional training. We have eliminated some positions (communicators, etc.), and we should better define how we are compensating for these reductions. For example, we should have some guidance as to how frequently we monitor counterpart links.
- We need additional protective measures training. We haven't had this training in over a year, and I think we may be somewhat rusty. In particular, I think we need to concentrate on position roles and interfaces.

RESIDENTS:

- NRC staff did a poor job of utilizing appropriate drill protocols, i.e., the use of "This is a drill," at the start of all communications. In fact, at one point in the drill, the Control Room Supervisor had received a call from the NRC regarding the availability of ERDs data and no protocol was used at all. This protocol should be the standard, in the event that a real event occurred during the participation in an exercise.
- "Repeat-backs" were not always used by the NRC during the exercise. Repeating-back communicated information should be our standard during emergency situations. It allows the person communicating the information to verify that what was communicated

was correct and intended, and it offers the person receiving the communication to verify the information received.

- The NRC recommended to the licensee some specific actions to be taken, in terms of plant operation (i.e., reinitiate feed to the Steam Generator with the tube rupture), to “dilute the release.” The control room staff appropriately evaluated the recommendations and determined that what was recommended was not in accordance with plant procedures and may have in fact placed the plant in a more unstable condition. Prior to making recommendations to the licensee to take specific actions to maneuver the plant, should we not have some type of informal communications with the residents on the Reactor Safety Counterpart Link regarding the recommendation, as the resident inspectors are usually the NRC representatives most familiar with the specific plant’s configuration and approved procedures?
- Asking the licensee to ‘join or participate’ on the Reactor Safety Counterpart Link did not appear to be appropriate, as this link is intended for internal, candid NRC discussion of what is taking place at the plant.
- Need a copy of the Chairman’s “briefing template.”
- Regional Administrator should brief the Commissioners/Chairman.
- Project Engineer’s pager did not work when residents paged him at start of drill to let him know of licensee’s pending emergency notification and ongoing event.
- Headsets for existing phone or a cordless phone with headsets (much more mobile - can move about TSC/control room to get needed information without having to put phone down) would be beneficial in TSC and/or control room for residents on Reactor Safety Counterpart bridge. Headsets would also minimize noise distractions.
- Use of information from residents not effectively used. Reactor safety team in HDQTRs got conflicting information over ENS line which was not validated through residents. For example, reactor safety team got information that containment sump level was rising, which was not true. The residents reported that the information was incorrect. However, the reactor safety team requested (quite strongly) that a licensee representative get on reactor safety counterpart line to explain what was going on. Better use/flow of information would be for reactor safety team to have information INPUT ONLY from ENS line and then if questions arise VALIDATE the questionable information through the residents on the reactor safety bridge. This would provide a more DEFINED flowpath of and validation for information that the reactor safety team receives.
- Management has to be sensitive to the fact that in the EARLY stages of an event, things are very fast moving and all the answers to specific questions may not be available. Allow the residents to MONITOR the licensee’s response and ASSESS plant condition during the early stages in order to provide a clearer picture of the specific event once initial EOP actions are completed. Also, a clearer picture of any notable equipment problems, and any real or potential concerns regarding plant equipment or the licensee’s

mitigation strategy could be provided after the initial rush of activities at the start of an event.

GENERAL COMMENTS:

- Reevaluate who is to be in the bubble.
- What information should be visible to bubble personnel.
- The IRC layout could be changed to be more accommodating.
- Training for positions should be more “hands on.” For example, running a mini drill with a reactor safety team and then critiquing it. I would be willing to support such training for reactor safety team members. Such training would focus on tasks and protocols for communicating.
- I do not know if this was a problem or not for this exercise but our “nation-wide” pagers do not work at all of our sites. For example, some do not work at PORTS or Paducah. Also a number of locations in Minnesota and Wisconsin.
- What documents/equipment does the Site Team need? Start at square one, and select only items which are useful enough to devote the resources to maintain.
- E-mail access - check periodically-did not get.

APPARENT DUPLICATES:

Larger bubble ERDS monitor

Have SDP sheets available

SRA should be a member of the think tank group.

Need a PC for the resource Manager to access LAN information.

Need car-to-car communication capability for trip to site (site team)

Status/use of mobile lab?

Response procedures are out-of-date.

Palisades site book(s) missing.

Need better communication flow too and from the bubble. Significant delays occurred regarding met data changes; rad levels, etc. Board needed to be updated more frequently.

What should be the expectations for Branch Chiefs and Acting Branch Chiefs for a plant assigned to their Branch?

RDO should brief the RA.