

From: Ross Landsman R111
To: William Travers EDO
Date: 6/13/02 5:32PM
Subject: DPO Dresden

Sorry to bother you again, but the issues are still there.
Attached is a DPO on the Dresden Dry Cask Loading

CC: Jim Dyer

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MEMORANDUM TO: William D. Travers, Executive Director for Operations

FROM: Ross B. Landsman, Project Engineer
Decommissioning Branch
Division of Nuclear Materials Safety, Region III

SUBJECT: DIFFERING PROFESSIONAL OPINION CONCERNING THE DRY
CASK STORAGE CAMPAIGN AT DRESDEN, UNITS 2 AND 3

On May 23, 2001, I submitted a differing professional view (DPV) on the dry cask storage loading at Dresden, Units 2 and 3 before any casks were loaded. The DPV addressed numerous technical issues that resulted in significant safety concerns about dropping a loaded cask at Dresden Station. The DPV addressed three main issues. The first issue concerned the fact that the NRC allowed Dresden to use a cask transfer facility (CTF) with welds that did not meet code requirements specified in the Certificate of Compliance (C of C) which could result in dropping a loaded cask outside any building confinement. The second issue concerned the fact that the NRC allowed Dresden to use a Reactor Building structure and crane that did not meet original licensed design basis loading conditions, i.e., loads associated with a cask lift. The third issue concerned the fact that the NRC allowed Dresden to use a CTF that did not meet our applicable codes and standards specified in the C of C.

Note: Twelve casks were loaded in 2001 while the DPV panel contemplated my issues.

On April 30, 2002, eleven months and one and one-half additional 2002 loaded casks later, the DPV panel concluded that there were no immediate safety concerns regarding dry cask movement activities at Dresden even though they appeared to have agreed with me on the major issues. However, they left all of the technical issues unresolved (see e-mail to you and your staff dated April 26, 2002). As you and your staff indicated to me (see previous e-mail to me dated February 15, 2002), all the issues would be resolved prior to the next loading campaign, they weren't.

I am initiating the DPO because I believe there are two issues that need to be resolved: 1) the DPV was NOT independent; and 2) continuing to allow the licensee to load casks when there are numerous technical issues that have not been resolved per the DPV report.

Independence

Per Management Directive 1.59, the DPV review was not independent. The members were not qualified to make decisions on the technical issues that I brought up and had to send in TIA's and request help numerous times from HQ's personnel (see References for DPV). These personnel were the very same personnel that RIII originally contacted to accept/buy-off the licensee baloney on my findings and circumvent my report and accepted the Dresden flaws and allowed them to load the first cask last year and begin again this year.

Technical Issues

The new 2002 Reactor Building seismic calculations (that the DPV said were required, even last year) weren't received until the day before the new 2002 loading campaign began and were not reviewed by any NRC staff when Dresden began loading on April 25, 2002. In fact, a telephone call from NRR to the licensee with calculation questions wasn't had until May 22, 2002, after a couple of additional casks were loaded already in the 2002 loading campaign. Various structural members of the Reactor Building are over stressed, some over the yield/ultimate tensile strength of the material for SSE loads, various other members are just over stressed for normal operating loads, and we still let them load casks. The DPV merely states "to resolve the overstress conditions with the licensee, and look into compliance requirements to 10 CFR, Part 50". The Reactor Building and crane do not meet our/their design basis and yet we continue to let them proceed.

The CTF welds were deemed to not meet code but we allowed the licensee to use the CTF anyway. The DPV report goes on to say that my altered report (the one that I did not concur in) states "the welds were proper, based only on licensee assertions". The altered report appears to grant a Code Exemption without authorization from the Director of DNMS. The DPV report further goes on to recommend that the licensee should request an exemption from the requirements of the ASME code in accordance with the C of C. The DPV panel notes, that the alternate verification methods for the CTF weld fabrication records documented in the inspection report do not support a Code Exemption. This didn't stop the same personnel who originally accepted the welds, from issuing a Code Exemption for the very same unacceptable assertions as before (who's in bed with whom?). It should be noted that the exemption was for this CTF only. The exemption letter states that this "is not applicable to any other CTF. Any future CTF construction weld records should be maintained in accordance with ASME Code", inferring that this one doesn't meet code. It should also be noted, 12 casks were initially allowed to be loaded in 2001 and another cask this year by the CTF without a Code Exemption on the welds. We now have a CTF with unacceptable welds with a Code Exemption.

The cask lifting yolks for both the CTF and the Unit 2/3 Reactor Building crane are not seismic and do not meet ANSI N14.6 standards as required by the C of C.

The crane bridge girders and trolley do not have the required seismic calculations. Members are over stressed. In fact, there are no trolley calculations what-so-ever.

The CTF lift platform beam continues to not meet the single failure proof criteria of NUREG-0554 as specified in the C of C.

The 1987 repairs to the crane bridge girders are still incorrectly classified as a minor repair (requiring nothing to be done) verses (requiring a load test).

The crane load cell was not operating for over 20 years, and the licensee has since determined that the maximum rated capacity of 125 tons was exceeded numerous times without any analysis.

The issue from FitzPatrick and Hatch that identified moving the Hi-Storm overpack without the lid bolted on is still outside the design basis and hasn't been reviewed/resolved at Dresden prior to their loading new casks.

The annual ANSI required load test on the CTF lifting bracket failed its test. The licensee is doing a root-cause investigation to determine whether the previous load test in the fabrication shop was performed properly or if the documentation was faked and the testing wasn't performed at all. This hasn't been reviewed and we still let them load with all the other testing that was performed at the fabrication shop in question.

Summary

The licensee's analysis of the Reactor Building, the crane, the trolley, the yolks, the lift platform beam, and the girder repairs are severely flawed and the NRC should immediately inform the licensee that their analyses are not acceptable and that they are operating outside of their design basis and not just tell me in the DPV response to resolve them. In variance with our own GL91-18 guidance, the NRC has not demanded that the licensee provide a definitive schedule for permanent resolution of the issues, nor an assessment of how to shut down the plant if the torus and/or other safety related equipment were damaged in the Reactor Building if a cask were to drop. Remedial actions must be implemented prior to letting Dresden load any more casks. The CTF weld issue must be resolved before we put the general public at a greater risk from a drop accident at Dresden outside of any confinement barrier.

The DPV chairman never spoke to me on the issues, and the other two members spent only two hours with me on these complicated issues which took 11 months to document. In accordance with M.D. 1.59, please, this time, I would like a timely, complete, and independent review of my issues.