

### Dresden CTF Weld Documentation Requirements, Revisited

On February 11, 2002, John Grobe of Region III requested that SFPO provide a clarifying Email describing the requirements for weld inspection documentation for work done for Part 72. The request was made during a Region III/NRR/SFPO telephone discussion concerning a DPV filed in regards to the welding records for the Cask Transfer Facility (CTF) fabricated for Dresden.

The Certificate of Compliance (CoC) No. 1014 dated 5/31/00 for the HI-STORM cask system describes the requirements for the CTF in Section 3.5 of Appendix B, "Approved Contents and Design Features." The requirements of Section 3.5 were clarified by E. William Brach memorandum to John A. Grobe dated February 4, 2002 "Response to Differing Professional View Structural Issues Regarding the Dresden Spent Fuel Cask Transfer Facility," which stated the metal weldment, including the lift platform should comply with ASME Section III, Subsection NF, Class 3.

Subsequently, on May 1, 2002, I met with Wayne Hodges, David Tang and Steve O'Connor to confirm the applicability of ASME NF to the CTF. The question was : "Are the CTF welds required to be fabricated and inspected to ASME NF as suggested in the February 4, 2002 Brach to Grobe memorandum or, as contended by Holtec, does the CoC requirement for ASME NF only apply to design stress limits , not fabrication and inspection." A literal reading of CoC App B 3.5.2.1 favors the Holtec position.

The current SFPO/TRD clarified position is that the February 4, 2002 memorandum to Grobe stated that NRC "expects" that the CTF welds would be fabricated to ASME NF. That statement did not mean that the welds were required to be fabricated to NF. The technical staff further clarified that CoC Appendix B Section 3.5.1 states that the CTF "shall" be (is required to be) fabricated to NUREG 0612. Technical staff further clarified that the statement in Section 3.5.2.1 required that the CTF be designed to the stress limits of ASME NF, agreeing with Holtec but was silent on weld fabrication requirements.

The records requirements that flow from the new clarification are:

NUREG 0612, "Control of Heavy Loads at Nuclear Power Plants," dated July 1980 reviews the handling of heavy loads at nuclear power plants and includes recommendations (made requirements by the CoC) on actions that should be taken. Section 5.1.5 addresses, among other items, spent fuel shipping casks and recommends single failure proof guidelines for handling systems in accordance with Section 5.1.6, "Single-Failure-Proof Handling Systems." Section 5.1.6 refers to NUREG 0554 for design, fabrication and installation of new cranes.

NUREG 0554, Single-Failure Proof Cranes for Nuclear Power Plants, dated May 1979, Section 10, Quality Assurance, states that a quality assurance program should be established to the extent necessary to include the recommendations of the NUREG and that the program should be consistent with Regulatory Guide (RG) 1.28, "Quality Assurance Program Requirements (Design and Construction)."

RG 1.28 endorses ANSI N45.2. ANSI N45.2, Section 18, Quality Assurance Records, states that the quality assurance records should ("should" changed to "shall" by RG 1.28) include reports of inspections, examinations, and tests, and as a minimum identify the date of the inspection, the inspector, the type of observation, the results and that records shall be identifiable and retrievable. The ANSI N45.2 further states that the records should be maintained in a suitable environment to minimize deterioration.

The ANSI N45.2 description of inspection record requirements as applied to CTF welds does not comport with the description of the CTF weld inspection records described in NRC Inspection Report 07200037/2001-002, page20. The report describes records consisting of weld data and inspection data signed by the vendor's Quality Assurance manager, assembled cumulatively in weld groups, according to size and dated with the date the last welding activity was performed.

The CoC Section 3.3.2, which allows for exceptions to the ASME Code requirements does not apply in this case since the CoC holder has argued successfully that it does not apply.

In addition to the CoC, NRC Part 72 requirements for inspections and records are provided in Part 72.160, Licensee and certificate holder inspection, and 72.174, Quality assurance records. The regulations are in accord with the ANSI requirements for weld inspection records, but are not as specific as the ANSI requirements regarding signatures and dates.

Conclusion: The weld records described in NRC Inspection Report 07200037/2001-002, page20, do not meet the records requirements invoked in the COC Appendix B Section 3.5.1 which states that the CTF shall be fabricated to NUREG 0612.

-Paul P. Narbut

Footnote: Arguments.

1. The licensee Exelon had a consultant study performed which declared the CTF not to be a crane, but rather something else- a jacking frame/tower. This may be one line of argument. However the consultant study noted that the purchase specification for the CTF required ASMEIII NF for the CTF structure fabrication. Therefore if ASME III NF was applied , then the weld records are not adequate by the logic in my first paper.

2. Also, Holtec may argue that their NRC approved QA program meets RG 1.28 as an approved alternate.

3. Holtec pointed out that FSAR Section 2.3.3.1 H states "All primary structural welds in the CTF structure shall comply with the specifications of ASME Section III for class III linear structures." They say this was a mistake and can be corrected. Their basic argument is the CTF is not part of the HI STORM Cask system....and ASME only applies to the cask system