

## NMSS-0011. Spent Fuel Dry Cask Weld Cracks

### DESCRIPTION

In early 1997, the NRC became aware that, on four separate occasions, utilities using the ventilated storage cask (VSC)-24 spent fuel dry cask storage system had experienced cracking while making the cask closure welds. In May 1997, the NRC issued confirmatory action letters (CALs) to the Southern Nuclear Corporation (SNC) and three utilities to document their commitments not to load additional VSC-24 systems until the root cause of the cracking was identified and corrective actions were implemented to prevent recurrence. This issue

was identified<sup>1</sup> by NMSS to address the staff concern that the welding problems may exist in other cask designs in use.

### CONCLUSION

SNC and the utilities formed an Owners' Group to resolve the welding problems. The staff reviewed the root cause of the welding problems and assessed whether the corrective actions implemented by the VSC-24 Cask Owners' Group adequately resolved the welding problems. The corrective actions, including an improved

welding technique and a UT of the weld joint, were approved by the NRC.<sup>2</sup>

During certification of the MP-187 dry storage canister, NMSS performed all necessary activities required to assess the generic implications of welding problems for cask designs in use. Guidance related to this issue was

expected to be incorporated into a revision of NUREG-1536.<sup>3</sup> Thus, the issue was resolved.<sup>4</sup>

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<sup>1</sup> Memorandum for J. Craig from F. Combs, "Submittal of New Generic Issues for Tracking in the Generic Issues Management and Control System (GIMCS)," June 4, 1998. [9806090180]

<sup>2</sup> Letter to E. Fuller (Sierra Nuclear Corporation) from M. Knapp (U.S. Nuclear Regulatory Commission), "Closure of Confirmatory Action Letter 97-7-001," July 22, 1998. [ML060620419]

<sup>3</sup> NUREG-1536, "Standard Review Plan for Dry Cask Storage Systems," U.S. Nuclear Regulatory Commission, January 1997.

<sup>4</sup> Memorandum for J. Craig from F. Combs, "Closure of NMSS Generic Issues," October 13, 1998. [9810160185]

