

72-1008 72-1014 71-9261

Holtec Center, 555 Lincoln Drive West, Marlton, NJ 08053

Telephone (609) 797-0900 Fax (609) 797-0909

July 21, 1997

Dr. Carl J. Paperiello Director Office of Nuclear Material Safety and Safeguards United States Nuclear Regulatory Commission Washington, D.C. 20555-0001

Subject: LLNL Report No. UCRL-ID-126295

Dear Dr. Paperiello:

We have reviewed the report "Evaluation of Low-Velocity Impact Tests of Solid Steel Billet onto Concrete Pads, and Application to Generic ISFSI Storage Cask for Tipover and Side Drop", by the Lawrence Livermore National Laboratory, which prescribes a definitive procedure for analyzing cask drop and tipover events. By supporting this effort and publishing this work, the Commission has removed a major uncertainty in cask dynamic evaluation methodologies. Besides being of a high technical caliber, the LLNL report provides the requisite technical latitude to the cask designer (such as use of time-history techniques for basket stress analysis) to enable the development of quality designs and accurate quantification of margins. In our opinion, the SFPO has rendered a huge service to the dry storage industry through this research project.

Our engineers are busying themselves to benchmark our DYNA3D Code (also used by LLNL) against the LLNL results. In this context, we are most grateful to the LLNL scientists for selecting a close replica of HI-STARTM for their generic cask studies.

Very shortly, we will submit a revised treatment of cask drop and tipover scenarios for HI-STAR/HI-STORM in full consonance with the LLNL report, as we indicated in our July 11, 1997 meeting with your staff in White Flint.

Sincerely,

Kpoingh K.P. Singh, Ph.D., PE, President and CEO

cc: Mr. James Abel, ComEd Mr. Ken Ainger, ComEd Mr. Steve Brewer, AEP Dr. Roger Carlson, LLNL Mr. J. Nathan Leech, ComEd Mr. Joseph Reiss, ComEd Mr. Richard Tuetken, ComEd

010035

9708010194 970730 PDR WASTE WM-11 PDR NFO6

Document ID: 5014126

