

NRC Analysis of Spent Fuel Cask Response to the Baltimore Tunnel Fire Event



Christopher S. Bajwa

**Spent Fuel Project Office, NMSS
U.S. Nuclear Regulatory Commission**

**May 8, 2003
Rockville, MD**

Staff's Analysis Approach

- **Gather factual information on the event (NTSB)**
- **Model the fire that occurred**
- **Verify fire model with the physical evidence**
- **Analyze spent fuel cask response to the fire modeled**

Staff's Analysis Approach, cont.

- Fire modeled by NIST using the fire dynamics simulator (FDS)
- Physical evidence from tunnel examined and analyzed by CNWRA
- Thermal analysis model of spent fuel transportation cask was done (PNNL)

Conclusions

- **Analyses completed included conservative/bounding assumptions**
- **Exposure of Transportation Cask to the Baltimore tunnel fire would not result in radioactive release**
- **Robust Nature of Cask**

Documentation

- **Recently Released Commission Paper:**

<http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2003/secy2003-0002/2003-0002scy.html>

- **Transcripts available via the web**