

**22.39 Integration of Reactor Design, Operations, and Safety**  
Prof. Andrew Kadak  
Fall 2006

**Problem Set #6**  
**Analyzing the Davis Besse Event**

1. Review NRC Bulletin 2002-1 to identify events that lead to the Davis Besse reactor vessel head degradation.
2. Research the studies performed following the discovery of the degradation and provide an analysis of the breakdowns that occurred in each of the following organizations:
  - A. Utility
  - B. NRC
  - C. the Institute of Nuclear Power Operations.
3. Prepare a 2 page summary highlighting the failures of each organization to detect and prevent this degradation.
4. Even though no "accident" occurred, provide a rough estimate of the cost to FENOC, the operator of Davis Besse, of this lapse in both lost revenue (income) and cost to repair.

Focus on why these breakdowns occurred and what could have been done to prevent them. Does safety culture have anything to do with this event?