

RIC 2006

Session T2E

Use of Operating Experience

**Impact of the 2004 Atlantic Hurricane
Season on U.S. Nuclear Power Plants**

(Report available at ADAMS ML#053340263)

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Introduction

- RES OpE Role
- Hurricane Background
- Atlantic Hurricane Cycles and Future Implications
- 1992 Hurricane Andrew
- 2004 “Florida” Hurricanes

NRC Hurricane Response

- Systematic preparations
 - Communications capabilities
 - Staffing needs
 - Incident response centers (Regional and HQ)
 - Coordination with licensee and State/Federal partners (e.g., Federal Emergency Management Agency)
- Close monitoring of tropical storms and hurricanes
- Oversight of plant response and recovery

Licensee Response

- Licensees have established procedures for severe weather including hurricanes
- Licensees work closely with NRC/State/FEMA and other stakeholders in preparation for approaching storms, hurricanes and tornados

Impact of the 2004 Atlantic Hurricanes

- Hurricane Charley at Brunswick
- Hurricanes Frances and Jeanne at St. Lucie
- Hurricane Frances at Crystal River

Impact of the 2004 Atlantic Hurricane Season on U.S. Nuclear Power Plants

- Three main areas of reportable impacts included losses of offsite power, sirens, and communications equipment.
- LOOP contributing causes included degraded transmission line insulators, switchyard design, and faults caused by salt contamination or moisture intrusion.

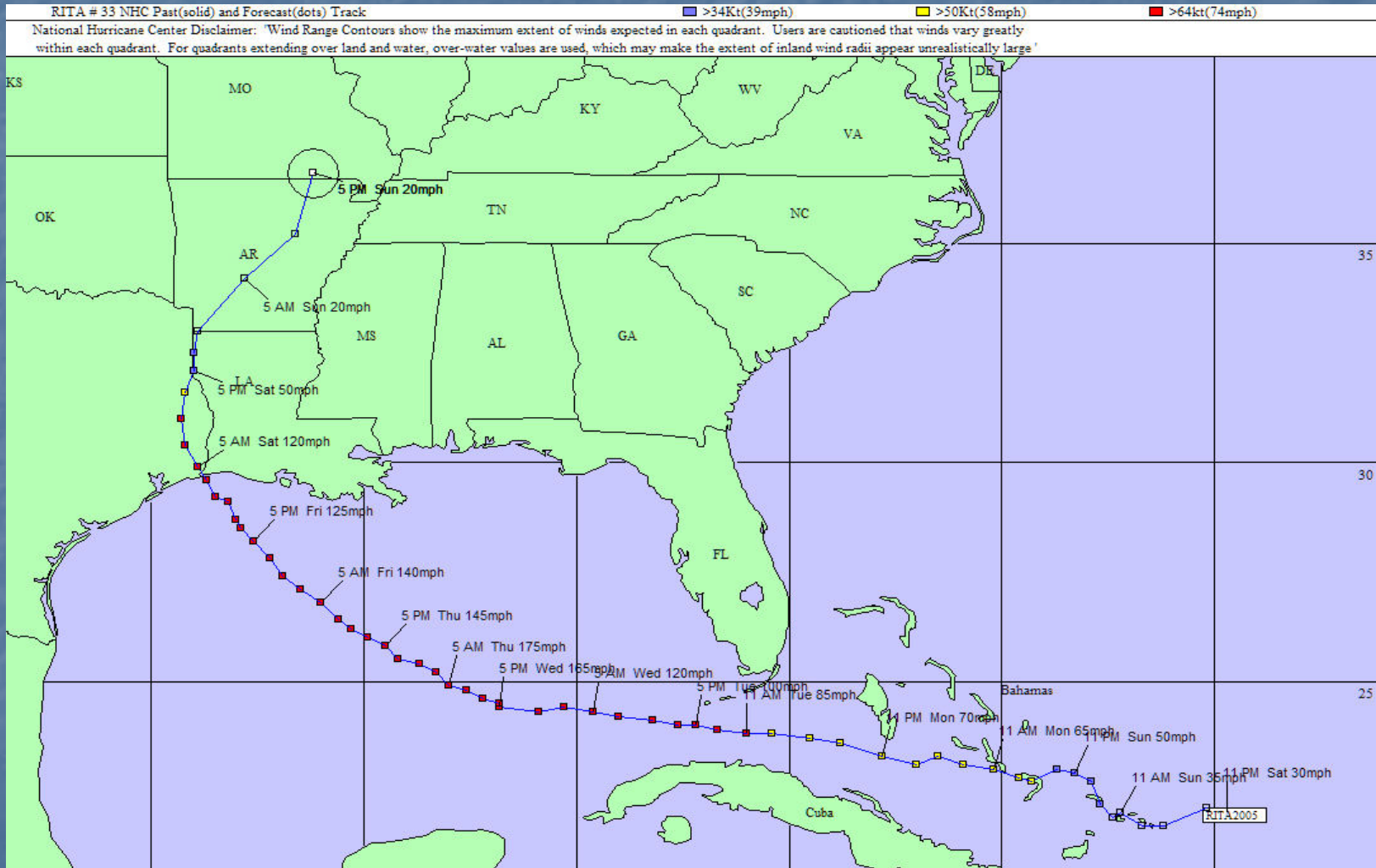
Impact of the 2004 Atlantic Hurricane Season on U.S. Nuclear Power Plants

- Effective NRC and licensee preparations
- Limited nuclear safety impact--robust design, successful EDG operation, and limited extent or duration of LOOPs
- Site preparations and hurricane impacts including affected equipment, contributing causes, and corrective actions may provide insights in preparing for future hurricanes.

2005 Hurricanes of Interest

- Hurricane Katrina at Waterford 3
- Hurricane Rita

Track of Hurricane Rita in 2005



Hurricane Rita (2005) at Landfall

