

Plant Hatch –Fire Risk Monitoring



Tabletop Pilot Process

- ▶ Primary objectives
 - Identify Equipment
 - Create Communications Plan
 - Determination of Risk Impacts
- ▶ Provide Insights
 - Process
 - Lessons Learned

E.I. Hatch Fire Risk Equipment Identification Process

- Qualitative Evaluation of Fire Risk with regards to daily work planning was not considered
 - Lack recently updated Fire PRA
- Only the equipment associated with the three Hatch safe shutdown paths was considered for Fire Risk monitoring
- Selected approach provides a qualitative look at the status of the equipment used to safely shut the plant down during and after a fire
 - Does not explicitly address core damage or large early release

E.I. Hatch Fire Risk Equipment Identification Process

- ▶ Questions to address in process
 - Will the selection of equipment be adequate to cover the requirements of (a)(4)?
 - Is the concept of only evaluating fire shutdown path equipment—not core damage---acceptable?
 - How should we focus safe shutdown equipment list?

E.I. Hatch Fire Risk Equipment Identification Process (Component List)

- ▶ A and B RHR pumps
- ▶ RCIC
- ▶ HPCI
- ▶ A and B RHR Service Water pumps
- ▶ A and B Plant Service Water pumps
- ▶ SRVs A, C, G, and H
- ▶ Core Spray
- ▶ Diesel Generators
- ▶ Room Ventilation for RHR Service Water pumps and Plant Service Water Pumps and Diesel Generators.

Fire Risk Evaluation and RMA Basis

- ▶ Current process includes quantitative risk assessment plus defense-in-depth status panel
- ▶ Monitoring of these components would be via the EOOS system (color coded qualitative approach) used at the site for work planning.
- ▶ Preliminary plans are a logic model evaluating the availability of equipment and its effect on the 3 paths.
- ▶ Risk Management Actions (RMA) based on a RMA decision tree would be implemented

Identification of Fire Scenarios

- ▶ A qualitative tree implemented within EOOS
 - Used to Identify removal of critical SSCs needed for Safe Shutdown (SSD)
 - Determine number of paths available (A train versus B train)

Communication of RMAs

- ▶ The Plan of the Day will communicate areas with high fire risk impact.
 - In place of the “roving fire watch”
- ▶ Work directly related to shutdown paths will be acknowledged via a checklist.

Communication of RMAs

- Implement a list of actions based on possible safe shutdown degradation
- Work Planning should notify Fire Protection Engineering for any unanticipated cases
 - ▶ Fire Protection Engineering evaluates if additional fire protection is merited/justified

Fire Protection Engineering Evaluation

- ▶ Fire Protection Engineering is best equipped to determine whether additional fire protection actions should be taken for any unanticipated cases
- ▶ Assessing Safe Shutdown paths at Work Planning Stage provides additional assurance of maintenance of safe shutdown capability

Insights/Lessons Learned

- ▶ Need thoughtful approach to combine qualitative approach with internal events model
- ▶ Fire Protection Program needs to be credited when evaluating fire risk as part of (a)(4) program
- ▶ Need to develop method for addressing large number of critical fire areas when a safe shutdown path is impacted