

N3414. CALVERT CLIFFS: USING PSAs TO ASSESS ON-LINE MAINTENANCE RISKS

Calvert Cliffs Nuclear Power Plant uses probabilistic safety assessment to help develop a daily risk profile and to evaluate the effect of maintenance activities or tests on the station's overall risk.

"We have assigned daily risk levels - low, medium, high - to the plant risk profile," says Jim Spina, general supervisor, Plant Work control. "Medium is three times normal instantaneous peak risk, high is ten times. We try to levelize risk for the week. If we're going to have low risk at the beginning of the week, then low again at the end of the week, we look at what is causing the high risk and see whether we can flatten it out. We typically change the work schedule to avoid getting into the highest risk categories."

For any maintenance identified as medium or high risk, the maintenance group responsible for that activity develops a compensatory action plan. The plan describes the actions to compensate for the higher risk level, such as around-the-clock coverage, supervisor verification of parts and materials and prejob briefings by first-line supervisors.

Spina says an immediate benefit from the risk-informed approach was a reduction in the station's average risk profile for any given week. Using PSA techniques helped the plant identify activities that were higher risk than had previously been identified.

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