Background

NFPA 805 is a standard developed that is endorsed by the NRC in RG 1.205 as an acceptable means for complying with 10 CFR 50.48. Westinghouse is positioned to support your needs in the decision-making and NFPA 805 transition process. We have the capabilities to perform a feasibility study and cost-benefit analysis for plant management to objectively compare resource requirements between maintaining the current license basis and adopting NFPA 805. Should you decide to transition, Westinghouse can provide full-scope NFPA 805 transition services.

Benefits

The benefits of transitioning to NFPA 805 include the following:

- The plant will have a reduction in regulatory exposure to NRC interpretations regarding post-fire operator manual actions and fireinduce spurious operations.
- NFPA 805 can potentially reduce the need for fire barriers and emergency lighting.
- The plant ranking under the NRC Reactor Oversight Program could improve by having a quantitative process for responding to NRC Significance Determination Process concerns before they become NRC findings that require considerable manpower and expense to resolve.
- The utility will be more easily able to meet the quantitative risk assessment requirements of NRC RG 1.200 (i.e., technical adequacy of Probabilistic Risk Assessment (PRA) results for risk-informed activities) and its phased implementation schedule through 2010.
- NFPA 805 provides a framework that can reduce the expenses associated with continuous fire watches by assessing certain fire protection impairments and non-compliances as low-risk.

NFPA 805 Capabilities

Feasibility Study and Cost-Benefit Analysis - The decision to transition to NFPA 805 can be complex and have substantial budget implications for the plant. Westinghouse has the capabilities to help your decision-making process by performing a feasibility study and cost-benefit analysis. This evaluation involves assessing the level of effort required to comply...
with current regulatory requirements as compared to the level of effort to make the transition.

Transition Planning - Adopting NFPA 805 is a multi-year, multi-disciplinary process that requires involvement of fire protection engineering, PRA regulatory services, system transient analysis, operations, training, procedures, and outage management. We will develop a detailed transition process and schedule to help you plan.

Fundamental Fire Protection Program and Design Elements Review - Westinghouse has the knowledge to confirm that your transitioning fire protection program meets the fundamental program and minimum design requirements of NFPA 805. We will document an acceptable basis for any exceptions to the requirements.

Nuclear Safety Review - NFPA 805 transition requires a nuclear safety review similar to that required by 10 CFR 50, Appendix R, as well as NUREG-0800. Our staff has the expertise to perform this systematic review, which includes nuclear safety system and equipment selection, circuit analysis, cable routing, and fire area assessments.

Engineering Analyses - Numerous analyses are required throughout the transition to NFPA 805. Some of these include evaluation of fires in non-power operational modes, radioactive release, and fire modeling. Our team members have the required expertise to perform each of these evaluations.

Change Evaluations - Issues that do not satisfy the deterministic requirements of NFPA 805 and have not been approved can be resolved by performing change evaluations. This is essentially an evaluation to demonstrate that the risk-significance of the scenario is acceptable. We will employ our classical fire protection and risk-informed experience to perform these evaluations.

Program Documentation and Regulatory Submittal - Our staff will prepare comprehensive and consolidated documentation that includes calculation files, procedures, and license basis documents to verify and maintain an NFPA 805 program. We have the resources to develop the Licensing Amendment Request (LAR), as well as support the plant through the review process.

Experience
Westinghouse has assembled a highly capable team to perform NFPA 805 transitions. We have the experience and expertise of over 30 in-house PRA engineers. In addition, we have made working arrangements with companies that have substantial Appendix R and traditional license basis experience. Westinghouse has been actively involved in NEI NFPA 805 taskforce that is overseeing the pilot plant applications.