



# NRC Violations- Significance Determination Process

## Background

The NRC's Significance Determination Process (SDP) uses risk insights, where appropriate, to assist NRC staff in determining the safety or security significance of inspection findings identified within the seven cornerstones of safety at operating reactors. The SDP is a risk-informed process and the resulting safety or security significance of findings, combined with the results of the risk-informed performance indicator program, is used to determine a licensee's level of safety performance and the level of U.S. Nuclear Regulatory Commission engagement with the licensee in accordance with Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program". Each appendix to IMC 0609 supports a cornerstone(s) associated with the strategic performance areas as defined in Management Directive (MD) 8.13, "Reactor Oversight Process" and the baseline inspection program as outlined in Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase" and IMC 2201, "Security and Safeguard Inspection Program for Commercial Power Reactors."

## EPM SDP Services

- Consultation and Guidance
- Risk Analysis
- Supporting analyses and evaluations
- Evaluation of fire impacts for plants with and without fire Probabilistic Risk Analyses (PRAs)
- PRA model enhancements and adaptations to address findings

## Why EPM?

Our SDP clients benefit from EPM's extensive experience interfacing with the regulator and identifying acceptable engineering based approaches for the risk analysis of performance deficiencies. EPM is able to provide comprehensive and focused best-estimate significance determinations to plant management and other stakeholders.

EPM is a multi-discipline engineering company that provides services in fire safe shutdown analysis, fire protection, PRA/PSA, risk management and engineering and software solutions to clients throughout the world. We

provide assistance in addressing issues related to regulatory compliance, engineering programs, licensing, and configuration management for operating nuclear power plants, as well restart and new and decommissioning plants.

EPM provides a full spectrum of services in support of utility engineering programs such as fire safe shutdown analysis, fire hazards analysis, Design basis development and certification, Environmental Qualification (EQ), Component Classification (Q-list), Cyber Security, Maintenance rule, etc.

EPM Risk Services Division offers seasoned experts in PRA (Internal event, external event, fire PRA, seismic PRA), System Engineering, Fire Modelling, Thermal-Hydraulic and Human Reliability Analysis. Together with EPM's Fire Protection Engineering, Safety and Systems Analysis, Software and Technology Solution teams, we offer a one stop shop for all aspects of Risk Informed Regulation and other engineering programs.

EPMs' staff consists of highly experienced utility and regulatory personnel that can offer unique perspective and expert solutions to challenging Significance Determination Process needs.

## Testimonials

*"EPM has consistently and earnestly listened to my concerns and questions with the desire to 'Get it Right.' Questions are answered promptly and updates to software are provided to address any issues. EPM displays great communication skills; listens and explains issues with the purpose of reaching an understanding and final resolution. EPM keeps me informed of outstanding items, and always provides a point of contact for any questions I may have." – **Supplier Observation - Electrical Design Engineering/Exelon Project Lead - Limerick Generating Station - September 2016***

*"I wanted to let you know how impressed I was with the level of talent, support, and professionalism of your people. I was able to meet several of them during the Point Beach audit, listen to them speak to the NRC, and witness their level of knowledge during plant walk downs. I couldn't have been more satisfied with their performance. Their hard work made this an extremely successful audit. I am proud to call them members of our Point Beach team. If I can provide recommendations on their efforts in the future, please don't hesitate to contact me." – **Programs Engineering Manager - Point Beach Nuclear Plant - June 2014***

*"The purpose of this note is to express my appreciation for the support provided by EPM to AEP in response to the multiple issues associated with the degraded Auxiliary Building pre-action suppression systems and NRC Fire Protection Triennial Inspection June 10 - 29, 2013. Specific examples of strong performance included prompt dispatch of field engineers to assist in developing and completing a test plan to address our degraded suppression systems, development of a hydraulic model to address the ability of a single fire pump to meet the demand of our worst case suppression systems and completing technical evaluations and fire modeling necessary to support the Significant Determination Process (SDP). It is my understanding EPM was able to provide this requested technical expertise to meet our challenges while simultaneously completing two peer station NFPA 805 License Amendment Requests. This performance is noteworthy. Please share this information with your staff and once again thank you." – **Engineering VP - AEP/DC Cook - June 2013***

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