



## CAMP: A Cable Aging Management Solution

EPM has provided Appendix B software solutions and support to nuclear plants for over 30 years, including its cable and raceway system (EDISON) and safe shutdown analysis system (SAFE). These applications were developed with the challenges of nuclear plants in mind.

A new challenge in the nuclear industry is cable aging. Many plants have been in operation for over 50 years, and some have cables in adverse environments which can result in cable degradation.

### CAMP Features

Aligning with EPRI and NRC guidance, the Software and Technology Solutions team at EPM has developed a Q database for tracking cable degradation. The Cable Aging Management Program (CAMP) provides tools for:

- *defining* risk based on cable age and a user-defined formula
- *defining* adverse environment stressors for a cable
- *displaying* cable materials and support data (e.g. insulation material, support materials)
- *monitoring* cable condition
- *identifying* trend
- *recording* test result
- *generating* reports

### CAMP Configurations

CAMP can be configured in a variety of ways:

- **EDISON CAMP** — to work closely with existing EDISON data. Cable and raceway data is stored in EDISON, and shared between modules.
- **SAFE CAMP** — to work closely with existing SAFE data. Cable and raceway data is stored in SAFE, and shared between modules.
- **Standalone CAMP** — to work independently. Cable and raceway data is stored and maintained in CAMP.
- **Customized CAMP** — to integrate with other external electrical design tools. Cable and raceway data is shared from an external module.

CAMP was released in 2014 and has been licensed by the Columbia, Beaver Valley, Davis-Besse and Perry plants. It has been enhanced to include tracking ticket functionality and email notifications, additional Tan Delta and Insulation Resistance calculations, improved graphing functionality and new risk ranking formula controls.