

# DATATRAK

## Software Solutions for Fire Protection Compliance



AREVA, the world's leading nuclear supplier, is recognized throughout the industry as a premier provider of fire protection engineering, design and analysis services.

### Involved and Engaged

AREVA has actively supported the nuclear industry in developing tools, processes, and guidelines for implementing a comprehensive Fire Safe Shutdown Analysis and is a leader in fire protection standards development, industry working groups, and industry forum presentations. Additionally, as part of a Nuclear Energy Institute (NEI) initiative, members of our team helped develop the advanced performance-based methods for circuit analysis described in NEI 00-01, "Guidance for Post-Fire Safe Shutdown Circuit Analysis." We were also selected by NEI to support pilot plant evaluations of this methodology to demonstrate compliance with regulatory requirements.

### Fire Safe Shutdown Analysis Software (DATATRAK)

The AREVA Fire Safe Shutdown Data Tracking System (DATATRAK) has been developed by AREVA as a tool for modeling, managing and reporting data related to performing the Fire Safe Shutdown Analysis to demonstrate compliance to 10CFR50, Appendix R and NFPA 805. The application has been designed to integrate the data elements and relationships required to support the various tasks related to performing Fire Safe Shutdown Analysis. Data screens and reports have been designed to accommodate the data input and reporting requirements such as the following:

- Safe Shutdown System and Component Selection
- Interlock, Power and Sub-component Dependencies
- Cable Selection
- Cable Routing and Location
- Fire Area Safe Shutdown Assessments
- Non-Power Operation Assessments
- Fire PRA Assessments
- NFPA 805 Transition
- Evaluates and analyzes impact due to data revisions (what if scenarios for proposed Plant changes)



This analysis involves modeling information associated with components, cables and raceways to determine the impact of fire damage to the ability to achieve safe shutdown within each fire zone or fire area.

The database system is also designed to link to external data sources such as selected plant cable raceway data tables and supplement existing cable and raceway database systems in support of the analysis. In addition, the software is also designed to identify the delta resulting from revisions to these external data sources used as design input to the Fire Safe Shutdown Analysis in order to maintain data configuration control.

This software solution has been developed from AREVA's expertise in supporting various Fire Protection projects since the promulgation of 10CFR50, Appendix R and has received favorable reviews from the NRC during NFPA 805 Pilot Plant reviews. Furthermore, the design of the application supports customization to meet the needs of each plant-specific project by integrating all the elements required to support this analysis.

