A shutdown PRA provides insights into plant risks unique to non-power operations, and can include transition risk as well as hot and cold shutdown conditions. It can provide a vehicle to relax regulatory commitments which conservatively address shutdown risk, reduce conservatism associated with implementation of 10CFR50.69, and provide a more realistic assessment of shutdown events to support the significance determination process evaluations, NOEDs, and emergency and exigent changes to Technical Specifications. Insights from a shutdown PRA can inform outage planning and management, as well as operator training.

EPM engineers have experience in the development and implementation of shutdown risk assessments, and can provide support for development and application of a shutdown PRA model. Our services can be customized to address your unique needs through the development of specific engineering solutions for your facilities and circumstances.

Our engineers have experience with the most commonly used software to calculate configuration-specific plant risk. Plant inputs and other factors impacting results may be automatically imported to establish Plant Operating States and initiate risk calculations. When combined with established EPM expertise in at-power risk calculations and external event PRAs, this full scope approach allows for informed decision making and consideration of moving maintenance from the outage into the operating period with attendant benefits.
In addition to nuclear and fossil utilities, EPM's clients include architect/engineering firms, federal agencies, educational institutions, and other consulting firms as well as a number of commercial companies.

**Domestic Nuclear Power Plants**

EPM has provided support to over eighty percent of utilities in the United States and ninety percent of utilities in Canada.

**International**

Assisted nuclear plants in:
- Armenia
- Canada
- Korea
- Japan
- Russia
- Spain
- Ukraine
- United Kingdom

Assisted Nuclear Regulatory Agencies in:
- Armenia
- Canada
- Russia
- Ukraine
- United States
- International Atomic Energy Agency (IAEA)

For more information contact Bruce Morgen, P.E., Director of PRA and Risk Informed Initiatives, bxm@epm-inc.com at:

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