

FLEX Phase 2 Equipment Maintenance



Flexible Coping Strategies (FLEX)

The U.S. nuclear industry has implemented diverse and flexible coping strategies (FLEX) to mitigate Beyond Design Basis External Events (BDBEE), such as a Loss of Ultimate Heat Sink and Extended Loss of AC Power. The FLEX strategies are segmented into three stages, with specific coping capabilities and performance objectives for each stage.

The FLEX Phase 2 strategy credits portable equipment stored at the Site Flex Storage Building (FSB) to implement the strategy and comply with BDBEE regulatory requirements. The periodic surveillance performed on the FLEX Phase 2 equipment requires special test equipment and knowledge to test the portable generators and pumps.

The AREVA Team Solution

AREVA has developed a FLEX Phase 2 Maintenance team that will perform the required surveillance and maintenance activities. AREVA is able to leverage our experience and in-depth understanding of the overall SAFER program based on our support of the industry with implementing FLEX- including staffing the National SAFER Response Center (NSRC); call out and deployment of resources for FLEX Phase 3 implementation; preparing the SAFER Response

Plan “Playbooks” for the site-specific mitigation strategies; and support for procuring the FLEX Phase 3 equipment stored at the NSRCs.

Our vision is to leverage our past experience, knowledge and capabilities in ongoing FLEX and Regional Response Center (RRC) projects so that we deliver the highest qualified work force to maintain the FLEX 2 equipment for our customers.

AREVA has developed a FLEX 2 complete maintenance program that is specifically focused on quality and cost optimization. We have developed a complete mobile maintenance center to meet the demands of this program and identified all required tools and test support equipment necessary to maintain the FLEX Phase 2 equipment.

Field services are a core competency for AREVA, and we have utilized our vast experience to deliver a self-sufficient work team directly to the site. Vehicles have been designed to deploy personnel, tooling, test equipment (such as a Draft Commander and Electrical Load Banks), all support equipment (hoses, fittings, consumables, power), and office facilities for efficient and professional execution of maintenance activities. Documentation of maintenance activities will be captured in an electronic database for tracking, trending and evaluation.



Team Expertise

The FLEX Phase 2 PM Team includes 26 operators that are trained and qualified on FLEX Phase 3 equipment. They are experienced nuclear workers with more than 250 combined years of experience including outage support at multiple nuclear plants. They have the high degree of electrical and mechanical knowledge and certifications necessary to safely and proficiently operate the equipment provided from multiple suppliers.

AREVA's team will perform the equipment maintenance necessary to ensure operability and reliability of the FLEX Phase 2 equipment, providing value to our customers. Our customers gain peace of mind knowing the FLEX Phase 2 equipment is being maintained by a leader in the nuclear industry that shares the same core values.

Cost Savings

In addition to receiving the best qualified and trained resources in the industry, there are also significant cost savings that will be realized since AREVA will purchase and maintain the required test equipment (load banks, transformers, Draft Commander, etc.). AREVA can optimize the amount of equipment needed across multiple customers, reducing the cost. In addition, customers will not have to train maintenance personnel on the FLEX equipment, lowering maintenance costs.

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Features and Benefits

- Focused on the nuclear industry and share the same core values as the utilities
- Cost efficiencies
 - Eliminates need to purchase and maintain test equipment
 - Reduces training cost due to experience gained during FLEX Phase 3 training
- Turn-key maintenance
 - Self-contained and supervised
 - Single supplier of maintenance services
 - Complete all equipment maintenance and documentation
- Experienced field service technicians
 - Trained on FLEX Phase 3 equipment (similar type equipment)
 - Worked with OEMs for receipt testing (running/testing equipment)
 - NRC-endorsed AREVA training program
 - Incorporating lessons and best practice programs across multiple sites and customers
 - Complete documentation and reporting
 - Provide synergies by using a roving crew; thereby, capturing and applying Lessons Learned and Operating Experience across multiple stations
- Access to full AREVA depth and expertise
 - Access to AREVA's fully equipped, self-contained field services, a core competency for AREVA
 - Access to AREVA's full support with Engineering and Operational expertise
 - Fully deployable field service division to address all needs or emergent issues
 - In-house vibration analysis, thermography and oil analysis
- Customers can focus their efforts on the Plant PMs and not be burdened and distracted with FLEX Phase 2 equipment surveillance and maintenance programs

The value to our customers:
Effectively maintain your FLEX
Phase 2 equipment with lower cost.

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