Primary Motors

With approximately 250 Reactor Coolant Pump-Motor sets operating on five continents, AREVA is an established world leader in RCP Motor technology. In 2004, AREVA built and opened the Pump & Motor Service Center (PMSC) in Lynchburg, Virginia, to handle the contaminated motor refurbishment needs of the North American nuclear industry. Since opening, the PMSC has refurbished over 70 primary motors from PWRs and BWRs — including motors manufactured by Allis Chalmers, General Electric and Westinghouse.



GE BWR Recirc Motor after Refurbishment

AREVA's 70,000 square-foot PMSC is dedicated to only the highest standards of safety, quality, performance and delivery. As part of the new AREVA Solutions Complex (ASC), the PMSC invests in the latest technology, setting the standard for service capability. With over 50,000 square feet of Radiologically-Controlled Area (RCA), a hot machine shop, and 75-ton crane capacity, the PMSC provides the necessary capabilities to help you remain competitive and profitable.

Equipment utilized at the PMSC to refurbish motors includes:

- Balancing Machine for rotors up to 50,000 lbs.
- Complete hot machine shop
 - Horizontal boring mill
 - Vertical lathe (118" table)
 - Horizontal lathe (25T capacity)
- Paint booth and qualified Level 1 coating program
- Motor electrical testing equipment
- Variable frequency drive for full-speed testing
- Shaft plating repair



Balancing of Westinghouse RCP Rotor



Plating Repair of Rotor Flywheel Interface



Modifications & Upgrades

With over one hundred years of combined motor experience, AREVA's engineering team understands vertical motor design weaknesses and has designed upgrades to resolve long-standing industry issues that threaten reliability such as:

- Oil leakage
- Erratic oil level indications
- · Loose journal fits
- Flywheel loosening
- · Elevated bearing temperatures
- Stator winding failures

Moreover, AREVA's replacement stator includes design features to provide the highest possible reliability and reduce the motor power requirements. **No AREVA RCP motor stator has ever failed in service, a record unsurpassed in the nuclear industry.**

A Foundation of Safety, Quality and Performance

At AREVA, our Pump and Motor Services start with a rigorous nuclear safety culture. In fact, safety is our top priority.

- Dedication services
- Effective FME program
- Human performance tools
- Robust condition reporting system
- Appendix B QA Program
- ISO 9001, ASME Section III & XI



Measurement of Rotor from Allis Chalmers RCP



Westinghouse PWR RCP Motor

Features and Benefits

- · High-quality parts
- Planning and scheduling tools to ensure delivery on schedule
- Engineering depth to "fix it right" the first time
- Training program to ensure technicians are task-qualified
- Upgrades to address equipment design problems
- Capability and capacity to perform work in-house
- Advanced technologies support pump and motor services

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