

Operational Sharing 03: Life Cycle Management of Electric Machines

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Abstract:

Upgrading excitation systems in large electric generators and synchronous motors is a strategic approach to enhancing operational reliability, improving voltage regulation, and supporting energy efficiency. Modern excitation systems offer advanced control features, reduced maintenance requirements, and greater adaptability to changing load and system conditions. This paper explores how upgrading AVR panels significantly improve the performance and longevity of critical rotating equipment, particularly in industrial and power generation environments. The paper draws from real-world implementation experiences and lessons learned during the replacement and retrofitting of legacy excitation systems.