framatome

Replacement Generators for Emergency Diesels

Unmatched field-proven experience

Challenge

Age-related issues are challenging the reliability of existing generators for emergency diesels.

Solution

Framatome, partnered with Jeumont Electric, has a proven delivery model for spare generators. Framatome and Jeumont Electric form a proven team with decades of experience supplying high-quality generators. Our solution includes reverse engineering, design, fabrication, testing and delivery of a high-quality, seismically and mild environmentally qualified new safety-related generator that meets or exceeds industry standards and your plant needs.

The Team

Framatome, a worldwide expert in the nuclear energy field, provides both engineering and project management oversight. Framatome is well experienced in both qualification and dedication of electrical equipment for safety-related applications in the nuclear power industry.

Framatome has partnered with Jeumont Electric with manufacturing facilities in Jeumont, France, for the reverse engineering, design, analysis, fabrication, and testing of replacement generators. Jeumont Electric is a world-class pioneer in electrical energy production and conversion technologies, with global offerings in the field of electric rotating machines and their auxiliaries, and has been providing solutions for the most demanding of applications for over 120 years.

Experience

Framatome and Jeumont Electric have decades of experience supplying reliable, robust and high performance generators in both North American and international markets. The combined team has provided eight generators and 42 RCP motor stators to the U.S. nuclear power industry since 1990. 27 RCP stators have also been supplied internationally with 103 more under contract. In addition, 110 emergency generators have been supplied worldwide, and 38 ultimate emergency generators for Post-Fukushima have been manufactured for the French nuclear fleet.

Your performance
is **our** everyday **commitment**

Customer benefits

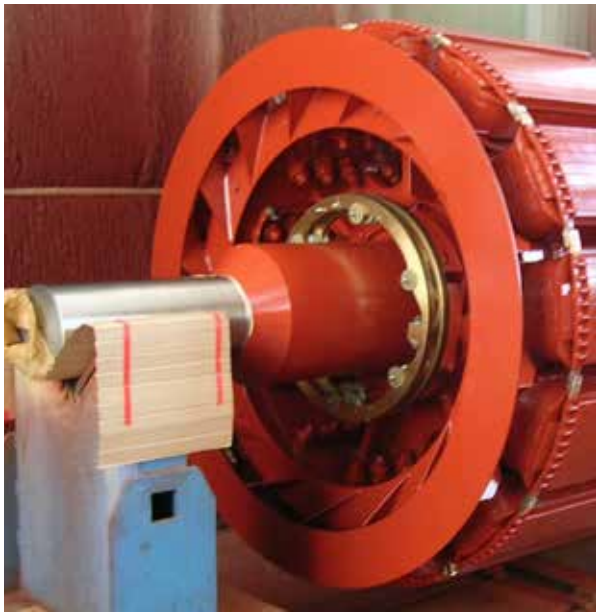
- Proven team with decades of experience supplying high-quality generators
- Established and proven reverse engineering process
- Successful track record of delivering on or ahead of schedule to minimize project risks
- Generator designs to be interchangeable with the existing generators and have electrical performance characteristics that meet or exceed the original designs
- Two 10CFR50 Appendix B suppliers with a long working history
- State-of-the-art facilities and technology

The Best Solution

The combination of Jeumont Electric's rigorous design and manufacturing experience, and Framatome's nuclear power integration and project management experience provides the best solution for delivering spare generators for emergency diesels on time and on budget.

Technical Specifications

- The rotor in the generators is made of a pre-machined cylindrical shaft capable of withstanding high tensile stress. The magnetic core is composed of stacks of thick steel laminations.
- The stator cores are made of low-loss magnetic laminations insulated with an in-house qualified C5 insulation material.
- The winding is made of pre-insulated enameled copper wire, built into coils, machine insulated and pre-formed to enable adequate insertion in the stator slots. Coils have conductive and, when required semi-conductive, external taping to minimize partial discharge and ensure a maximum lifetime of the machine.
- The generator frames are made of a thick welded and bent steel structure to ensure good vibration behavior of the generators. The stator is inserted into the frame and secured by a Jeumont Electric patented system. This ensures minimum dismantling time in case of maintenance.
- Once assembled with all its auxiliaries, the generators are tested according to the highest industry standards and additional protocols, if required by the customer.
- Throughout the manufacturing process, the machine will undergo regular and continuous checks, ensuring perfect traceability of product construction, which fulfills the most demanding customer requirements.



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