

Heating, Ventilation, Air-Conditioning Nuclear Qualified HVAC and Chiller Systems

Safe and reliable plant operation with stable temperature and humidity levels

Challenge

Consistent temperatures, appropriate humidity levels and regulation of pressure in controlled areas are essential for the safe and reliable operation of nuclear facilities and power plants. Standard industrial heating, ventilation and air-conditioning (HVAC) systems are not qualified for use in nuclear power plants. Various factors such as aging, improper dimensioning or additional demands on the installed HVAC system can cause the ambient temperatures to exceed the limits for instrumentation and control (I&C) and electrical installations. Prolonged operation under fluctuating climate conditions reduces reliability of I&C systems and increases the need for repairs and maintenance.

Solution

Framatome's HVAC equipment and the unique integrated chiller control systems (TELEPERM XS) undergo an extensive nuclear qualification process. The HVAC systems stabilize specified temperatures, pressures and humidity levels suitable for reliable operation of safety-relevant equipment. Our original equipment manufacturer experience and various retrofitting projects ensure optimized plant layout integration and significantly simplify authority acceptance.



Refrigerating machine with open drive centrifugal compressor

Customer benefits

- Increases plant safety and reliability
- Reduces costs for maintenance and repairs of I&C and electronic components by creating ideal and stable climate conditions
- Cost-effective, as the size of our HVAC and chiller systems can be adjusted to customer needs

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

Technical information

Scope of services:

- Feasibility studies and concepts for authority acceptance
- Nuclear system and component engineering according to requirement management
- Generation of project specifications, quality and qualification plans
- Layout engineering and plant integration
- HVAC supplier management and qualification
- Safety assessment reports and licensing
- Erection and commissioning

All our HVAC and chiller systems fulfill the requirements of ASME, ENSI, KTA, RCCM and RCCE.



Testing of HVAC systems for nuclear qualification

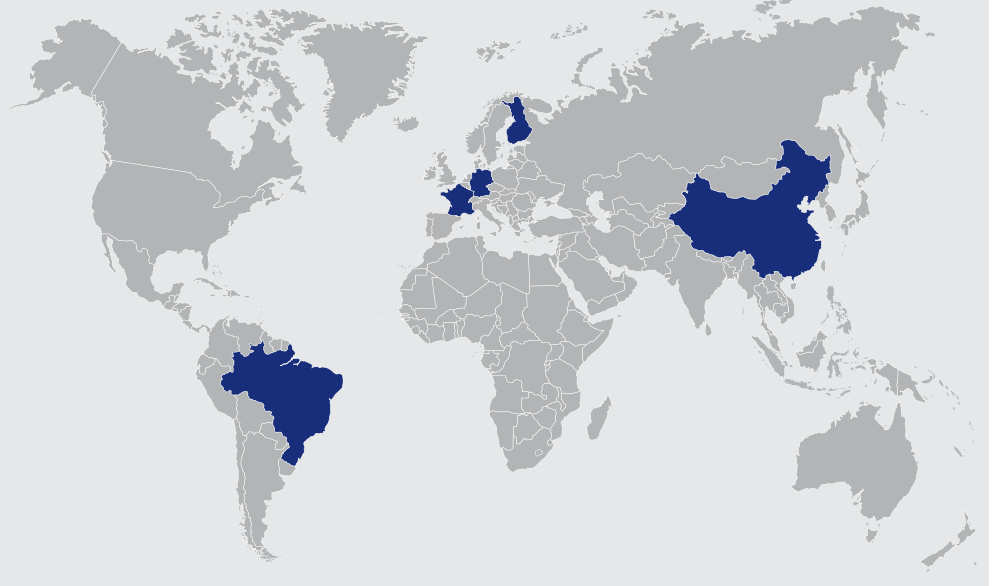


Seismic qualification

References

Numerous HVAC systems for nuclear power plants have been designed, installed and commissioned in:

- Brazil
- China
- Finland
- France
- Germany.



Contact: integrated-systems@framatome.com
www.framatome.com

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