

Instrumentation and Control Services

Outage and Operations Support, Maintenance, Training, Spare Parts & Obsolescence Service

Framatome's I&C service solutions support customers worldwide during the entire lifetime of their plants ensuring safe and economic long-term operation

Challenge

A reliable long-term support of instrumentation and control systems is key for the safe and economic operation of nuclear power plants.

Plant protection, control, supervision and monitoring relies on safety-critical I&C systems. Utility operators require I&C technology that is reliable, easy to maintain and fully operational throughout the lifetime of the plant. To ensure this reliability, it is necessary to maintain I&C components, periodically test specific control functions, and to keep the know how of the plant's operating staff up to date.

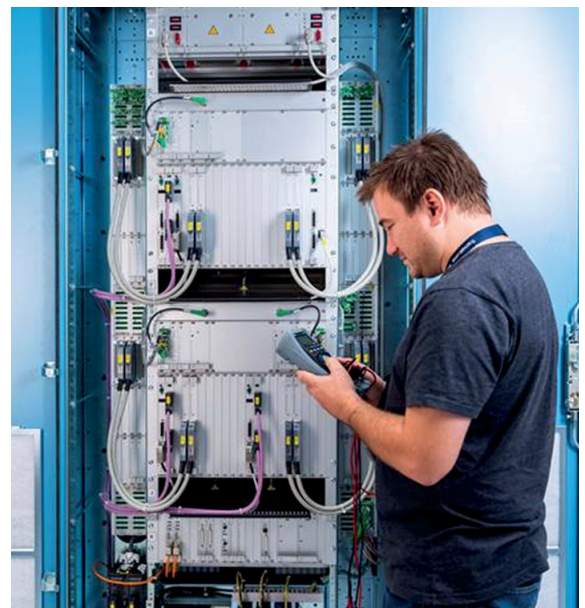
Aging hardware and obsolescence have become increasingly important issues showing the need to secure repairs and supply chains for spare parts as well as to provide engineering and support services like obsolescence management to meet life-cycle management challenges.

Solution

Framatome is keeping a close eye on the entire life-cycle of instrumentation and control solutions. Our experienced specialists ensure long-term operation with services that go far beyond the standard scope. From outage and operation support, maintenance, spares and spare parts management, obsolescence service and training - with us, your plant is in the best of hands for the long run.

With more than 60 years of experience in designing, building and maintaining every type of nuclear reactor, Framatome supports customers at each stage of their plant's life-cycle, and provides a wide range of services, including the following:

- Planning and performance of tests on digital and non-digital I&C systems as well as on safety and non-safety related I&C systems
- Consultation regarding maintenance intervals for equipment and maintenance strategies like Reliability Centered Maintenance (RCM) or Condition Based Maintenance (CBM)
- Outage support and support of modernization projects by on-site or back-office engineering activities and equipment integration
- Supply of spare parts and repair activities together with proactive obsolescence management on all I&C components
- A comprehensive range of training solutions covering all products and systems.



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Customer benefits

Framatome's I&C service solutions are designed to

- Improve the safe, reliable and long-term operation of nuclear power plants
- Reduce operating, maintenance and capital costs by proactive spare parts management activities
- Shorten lead times of spare parts supply
- Avoid unplanned shutdowns and minimize downtime
- Extend and optimize service life

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

Technical information

Scope of I&C services

- Preventive and corrective maintenance
- Condition based maintenance and reliability centered maintenance
- Inspection services and onsite plant start-up support
- Consultation and troubleshooting
- Engineering support
- Obsolescence management
- Spare parts supply and repair, spare parts management
- Customized trainings on I&C systems and equipment (e.g. TELEPERM XS trainings)
- Hotline support (up to 24 hours/7 days a week)



Key figures

More than **200 000** hours of worldwide I&C services every year

More than **250** international customers

Service for **300+** comprehensive I&C systems and **100+** nuclear instrumentation systems in operation

More than **40 years** of training experience



References

Worldwide I&C outage activities for OEM and non-OEM plants, e.g. reactor control and limitation system, reactor protection system, incore/excore instrumentation, instrumentation measurements, safety and non-safety related instrumentation and control systems, period testing, plant start-up support, interpretation of test results, and many more. Long term service contracts with worldwide customers.

North America

- USA

Western Europe

- Switzerland
- Netherlands
- Spain
- Germany
- Finland
- France

Eastern Europe

- Bulgaria

Asia

- China

South America

- Brazil
- Argentina

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