framatome

Safety Valve Setting on Test Loop

Maintenance of safety valves in hot workshop and setting of response pressure on Framatome's KOPRA test loop

Maintenance of safety valves and setting of response pressure under real boundary conditions outside of outages

Challenge

Safety valves in Nuclear Power Plants (NPP) are critical safety related components. Their maintenance and the adjustment of the response pressure are typically performed during the outage on the critical path, which represents a risk for the outage schedule. The precision of the response pressure and the tightness of the safety valves itself are the most important requirement to be fulfilled.

4 pilot valves VS66 set in parallel on KOPRA test loop in Framatome's component test facility in Erlangen

Solution

We offer to perform the safety valve maintenance in our workshop. If spare valves are available, only a swap of the valves is required during the outage. All other activities will be performed completely outside of the outage.

The dismounting, inspection and maintenance of the safety valves can be performed in our hot workshop, performed by our own personal, the OEM or the usual supplier of the utility.

In the test platform we apply steam that matches real plant boundary conditions. The tests can be performed before maintenance or after maintenance. Through this approach a very precise setting of the response pressure is achieved, since no correlation factors or extrapolation have to be used.

The valve seat tightness is verified after the testing and a lapping of the seat can be performed subsequently in order to assure and enhanced tightness.

Technical information

- Pressure of the loop up to 194 bar with saturated steam or sub-cooled water
- Quality-approved lapping of the seat after
- Maintenance performed by own personal, OEM or utilities usual supplier
- Hot workshop available for maintenance
- Transport of radioactive valves included
- Testing of several pilot valves in parallel possible
- More than 20 years experience with safety valves and pilot valves, e.g. Sempell, Sulzer, Bopp&Reuther, Crosby, CCI

Customer benefits

- · Minimization of outage risks
- Precise setting of the response pressure without using correlation factors
- Enhanced valve seat tightness increases plant availability
- Reliable test results through accreditation as test and inspection body in accordance with ISO 17025 and 17020, accepted by ILAC

Your performance

is our everyday commitment

Contact: test-labs@framatome.com www.framatome.com

It is prohibited to reproduce the present publication in its entirety or partially in whatever form without prior written consent. Legal action may be taken against any infringer and/or any person breaching the aforementioned prohibitions.

Subject to change without notice, errors excepted. Illustrations may differ from the original. The statements and information contained in this publication are for advertising purposes only and do not constitute an offer of contract. They shall neither be construed as a guarantee of quality or durability, nor as warranties of merchantability or fitness for a particular purpose. These statements, even if they are future-orientated, are based on information that was available to us at the date of publication. Only the terms of individual contracts shall be authoritative for type, scope and characteristics of our products and services.