## framatome

## **Water Lance System**

Ensures longer life and increased performance



### **Challenge**

Over time, corrosion products from secondary water flowing through recirculating steam generators are deposited as sludge. If not removed regularly, the deposits buildup and can result in the degradation of steam generator efficiency. Longevity and integrity of the tubing is also compromised. The result is unplanned outages and overall cost-efficiency compromises for the plant.

#### Solution

#### **Integrated and Tailored Services**

The first to implement high-pressure (3,000 psi) and high flow rate (85-90 gpm) for sludge removal, Framatome's patented static water lance system is delivered down the no-tube lane with a 90-degree sweeping action. This high-pressure system for square or triangular pitch steam generators enables fixed water jets to maintain tight water columns that penetrate completely through the SG tube bundle. This process transfers all of the energy to locations containing the most sludge and effectively removes hard collars. Framatome has removed nearly fifteen tons of hard collar material in the history of using this lancing process. Additionally, visual inspections can be performed without dismounting the lancing equipment.

We continually invest to advance our technology and fine-tune our water lance process parameters. Our most current technology includes high-pressure/high-flow patented nozzles, an improved suction foot, enhanced camera view, lockable FME and dose reduction covers and a new center lance.

# Your performance is our everyday commitment

#### **Customer benefits**

- Proven, low-cost, mechanical process for hard collar removal without chemical cleaning
- Cleans shadow regions between tubes (sometimes unreachable using static lancing)
- Immediate visual inspection of progress via integrated camera attachment
- Experience and resources minimize schedule, personnel, dose and cost

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