Decontamination
Removal of Radioactivity from Tools and Machine Parts

Efficient decontamination equipment for nuclear power plant components, which is essential to reduce the dose rates below the defined limits by removing dust and corrosion particles as well as surface coating.

Challenge
During everyday operation of nuclear power plants, various components and systems become contaminated. During plant maintenance activities or plant refurbishment programs, old contaminated parts and used tools often exceed required dose rates for disposal or reuse. Common decontamination systems regularly produce high amounts of secondary waste and high volumes of radioactively polluted water. This requires extensive reprocessing which is time consuming and an expensive procedure.

Solution
Framatome offers a number of proven decontamination solutions, both mobile and stationary. With the custom-tailored processes, decontamination targets with repeatable decontamination factors become easily attainable. Small and sensitive parts as well as large components can be decontaminated without producing any secondary waste and only small amounts of polluted water (depending on chosen methods). Even dose rates, which are low enough to allow free release of a component, can reached with our specialized equipment (if applicable according to regulations).

Customer benefits
- Tools become reusable after the decontamination process
- Reduced cost due to no generation of secondary waste and drastically reduced amounts of contaminated water
- Minimization of activity inventory
- Stationary and mobile units available
- Capable of using various cleaning media, depending on decontamination requirements

Your performance is our everyday commitment
Technical information

Framatome offers clean and time-saving decontamination solutions using the following technologies:

**Wet blasting**
- High pressure cleaning
- Blasting with additional abrasive

**Dry blasting**
- Sandblasting
- Dry ice blasting

**Passive decontamination**
- Ultrasonic bath
- Dipping bath (option: addition of chemicals)
- Electro polishing

**Special technologies**
- Decontamination via laser

The decontamination booth, one of the key systems in the product portfolio, features:
- Possibility of semi-automatic decontamination in case of high dose rate
- Decontamination only with demineralised water under high pressure (no secondary waste, nearly no surface removal)
- Pressure level of high pressure pumps is flexible and will be chosen based on the decontamination task
- Possibility for addition of chemicals
- Size of booth will be adapted to the size and weight of the components to be decontaminated
- Accessible and equipped with changing cabin

References

- China: decontamination workshop for EPR reactor (twin unit, under construction)
- Finland: decontamination workshop for EPR reactor (single unit, under construction)

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