UTILITY DECONTAMINATION EXPERIENCE

Keywords: CONTAMINATION REMOVAL; DECONTAMINATION; EMMMA

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Project Manager:

Objectives: Develop the EMMMA decontamination process used in France.

Comments:

- To apply it on stainless steel, the EMMMA process uses 2 cycles: an oxidizing step (15 hrs) and a reducing step (5 hrs) at a temperature of 80°C.
- The oxidizing solution is a mixture of K\textsubscript{2}MnO\textsubscript{4} (0.1% wt), nitric acid (0.013% wt) and sulfuric acid (0.005% wt).
- The reducing solution contains 0.1% wt ascorbic acid and 0.05% wt of citric acid.
- When conditions permit, ultrasound is applied during the treatment.
- The process is effective and relatively easy to implement (stable chemical products, operation at atmospheric pressure).
- It has been used since 1989 for the decontamination of primary pump hydraulic systems.
- Dose rate reduction factor ranges from 6 to 20.

Remarks/Potential for dose limitation:


Duration: from: 1989 to: 1993
Funding: N/A

Status: Completed
Last Update: October 6, 1993