

International Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry

VIRTUAL EVENT

International Conference on
**Management of Naturally
Occurring Radioactive
Material (NORM) in Industry**

19–30 October 2020

#NORM2020



Contribution ID: 237

Type: **Poster**

Decontamination of the Old Phosphoric Acid Plant

This paper describes the decontamination process of the old phosphoric acid single-reactor production facility in Serbia, which was in operation from 1969 to 1990, when the production was shut down and the facility itself has been abandoned. After the ministerial decision on dismantling of the facility in 2012, the decontamination activities commenced in August 2016. Following a radiological survey, contaminated material was collected, segregated, recorded and cleaned. The methodology of decontamination was primarily based on the mechanical removal of contamination and the use of dry methods of decontamination to prevent the generation of liquid secondary radioactive waste, using a specially designed vacuum cleaner for this purpose. Nearly 12 tons of solid waste has been packed into 55 standard 200-liter drums, mostly containing construction ruins, debris and dust. Out of 55 drums, 13 of them were found to contain the activity concentration of Ra-226 above the clearance level, reaching the maximum values up to 200 Bq/g. On completion of the decontamination final survey in the facility has been performed. The result was verified by the regulatory body and the site was confirmed to be ready for the future use.

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Session Classification: Session III - Experiences Related to Decommissioning of Facilities and Remediation of Contaminated Sites

Track Classification: NORM Decommissioning and Environmental Remediation