

Clean up of a radioactively contaminated legacy site in Oranienburg, Germany

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Abstract

There is a legacy site close to the town center of Oranienburg. It's origin goes back to the time of the Second World War. As the Auer factory site was purposefully destroyed by air strikes a large area was predominantly contaminated by thorium compounds.

The demolition waste was partially stored in bomb craters during the cleanup after the war. After the filling of bomb craters on the legacy site with demolition waste it was used as municipal waste landfill until 1960 and afterwards partly for industrial waste, amongst others for pharmaceutical residues.

Between 2005 and 2010 a non-radioactive part of the legacy site was removed. Since 2012 WISUTEC has been involved in engineering services regarding site investigation, permitting procedures, radiological evaluations and waste management concepts as well as supervision.

It turned out that the waste is an inhomogeneous mixture of demolition waste, household garbage, incineration residues, glass, metals etc. with a partly high radioactive content. As the thorium concentrate had been extracted from monazite sands for gas mantles the radioactivity is declared as NORM.

The presentation gives an overview of the challenges of cleaning up such a site considering the interest of the owner, the financing and carrying out a disposal way while the work is done in an area with warfare material, high ground water level as well as pollution with radionuclides and other heavy metals.