

NORM in the industrial use of quicklime

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Abstract

While the activity of natural radionuclides in lime can vary heavily between limestone formations, Belgian quarries in operation deliver lime with a relatively consistent range between 30 and 100 Bq/kg of ²²⁶Ra. A large percentage of production from these quarries is used at a national level in industry and construction.

Lime, quicklime and derived products have a wide range of applications in industrial processes. Most of these processes use relatively small amounts, and do not lead to accumulation of NORM. However, in the last few years, several cases of NORM due to the use lime or quicklime have been discovered in Belgian industry, e.g. in biotechnological processes and incineration installations.

The presentation will give an overview of these cases, and addresses the specific conditions under which NORM is formed. Furthermore, it provides an overview of the exposure situation and waste management in these facilities.