

Remediation Activities in Bagnoli Superfund Site: An Italian Case of Study

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Abstract : Until the 1990s, Italy was among the world's leading producers of raw asbestos fibres and Asbestos Containing Materials (ACM) and one of the most contaminated Countries in Europe. To reduce asbestos-related health effects, Italy has adopted many laws and regulations regarding exposure thresholds, limits, and remediation tools. The Italian Environmental Ministry (MASE) has identified 42 Italian Superfund sites, 11 of which are mainly contaminated by Asbestos. The highest levels of exposure occur during remediation activities in the 42 superfund-sites and during the management of asbestos containing waste in landfills, which requires specific procedures. INAIL-DIT play a role as MASE scientific consultant on issues concerning pollution, remediation, and Asbestos Containing Waste (ACW) management. The aim is to identify the best Emergency Safety Measures, to suggest specific best practices for remediation through occupational on site monitorings and laboratory analysis. Moreover, the aim of INAIL research is testing the available technologies for working activities and analytical methodologies. This paper describes the remediation of Bagnoli industrial facility (Naples), an Eternit factory which produced asbestos cement products. The remediation has been analyzed, considering a first phase focused on the demolition of structures and plants and a second phase regarding the characterization, screening, removal, and disposal of polluted soils. The project planned the complete removal of all the asbestos dispersed in the soil and subsoil and the recovery of the clean fraction. This work highlights the remediation techniques used and the prevention measures provide for workers and daily life areas protection. This study, considering the high number of asbestos cement factories in the world, can to serve as an important reference for similar situation at European or international scale.

Keywords : safety, asbestos, workers, contaminated sites, hazardous waste

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