

Contaminated Sites from the Past – EPA Experience

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In the United States, the Environmental Protection Agency (EPA) regulates the radiological cleanup of uranium mill tailings sites, some Department of Energy legacy sites within the U.S. nuclear weapons complex, and Superfund National Priorities List (NPL) sites. The approach to site remediation decisions, including the determination of cleanup levels, varies according to the enabling legislation granting EPA these authorities. Past practices that gave rise to many of the existing exposure situations at legacy sites were permissible before the advent of environmental cleanup legislation. The Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) authorised EPA to set generally applicable radioactivity concentration standards for soil cleanup at inactive uranium mill sites and vicinity properties. For the other categories of sites mentioned above, remediation goals are typically based on not exceeding a target excess cancer risk range established under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund). EPA's regulations for cleaning up existing exposure situations achieve effective doses near, and sometimes well below, the doses at which planned exposures of the public are regulated in the U.S. Although the cleanup levels selected may differ from those adopted in other countries, recommendations of the International Commission on Radiological Protection are reflected in the exposure assessment methodologies used for establishing them.