

Needs for Surveying and Controlling the Global Radioactive Contamination

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Abstract—*This poster presentation provides the needs for surveying and controlling the global radioactive contaminations, which occurs as the results of the naturally occurring radioisotopes and artificial radiations. This poster presentation also provides guidance on the instruments needed for radioactive contamination survey and control.*

We are now in an era of expanding nuclear energy programs all over the world, the role of radioactive materials used in the nuclear energy programs has acquired greater importance and significance in causing health and environmental effects. This has caused human beings to be in a constant radiation exposure to both naturally and man made radiation, such as the nuclear power plants, consumer products, medical x-ray, uranium milling and mining etc. The rapid advancements in technology has also increases human exposure to ionizing radiation. Therefore there is a great need for research to survey the effects of radioactive contamination and also how to control it throughout the world.

When radioactive materials are not sealed inside a container, the radioactive materials can spread to other objects within the environment. Then the radioactive contamination occurs when the radioactive atoms of the radioactive materials are deposited on materials, skin, clothing or any place where it is not desired. Generally radiation dose not spread to people, rather it is the radioactive contamination that spread to people and their environment. A person or environment that is contaminated with radioactive materials will continue to receive radiation exposure until the source of the radioactive materials are removed. Moreover, radioactive contamination are currently occurring everywhere in the world. Therefore there is a great need for regular survey and controlling of the present radioactive contaminations all over the world. These survey can be done either by direct surveying of the radioactive contamination using a portable meter, which depends upon the detector and the radioactive materials or the indirect surveying of the radioactive contamination using wipes.