

International Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry

VIRTUAL EVENT

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Overall assessment against regulatory control requirements to be specified in terms of the natural radiation in Turkey

A significant part of the radiation exposures in our daily life comes from natural sources. Gamma rays emitting from the earth's crust, cosmic rays, radon and radon decay products in the air, and radioactive elements in food and beverages are natural radioactive sources. Gamma rays emitted from the earth's crust in the region where we live in our country are one of the most important sources of natural radiation exposure and cannot be controlled.

On the other hand, our staminal preferences can increase the possibility of encountering natural radiation sources. For example, mineral water based healing therapies and short-term stays in balneological facilities are very popular in our country. However, since mineral and thermal waters may contain natural radioactivity, these activities may carry their own potential health risks. Thus, people who are taking part in these facilities are exposed to ionizing radiation due to natural radioactivity.

"Environmental radioactivity monitoring program" was carried out by Turkish Atomic Energy Authority (TAEK) between the years 2007 and 2010 throughout the country. In this context, examining soil samples which are obtained from Turkey's seven geographical regions activity concentrations of natural radionuclides were investigated and published in reports. In addition, researches has been carried out by TAEK on radioactivity in the thermal spring facilities in our country, on natural radioactivity in building materials, and on radioactivity in fly ash obtained from coal-fired thermal power plants.

In this study, the possible natural radiation sources in Turkey, are examined from possible personal dose contribution point of view and assessed for the overall situation in terms of NORM resources of geographical regions in the country. Thus the current situation in terms of naturally occurring radioactive material (NORM) was discussed in terms of the needs for regulatory control in this area.

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