Radium action plan in Switzerland

Nicolas STRITT, Federal Office of Public Health, Switzerland

Radium (²²⁶Ra) luminescent painting was used in Switzerland between 1920 and 1960 in the watch industry for clock hands and dials. This work was done before the radiation protection ordinance entered into force in 1963. After the 70s the use of radium was abandoned in the watch industry and replaced by tritium or by other non-radioactive agents.

From 1963, the watch industry was controlled and the regulatory body issued licenses for the use of radioactive substances. Remediation of polluted sites was performed in large workplaces and in workshops. However, before the 60s some work with radium was also performed in private homes. At that time radium was not considered an issue and there was no need to search and remediate systematically these homes.

In the beginning of 2014, the discovery of radioactive contaminated soil on a construction site of a new road changed the perception of the population and the media about its risk. The media dug into federal archives in order to determine the origin of the discovered radium. They found addresses of private homes, listing the locations where radium luminescent painting was used.

The media published the addresses online and in newspapers, after which the population asked a lot of questions. The federal authorities were obliged to perform measurements on site to reassure the population. Some traces of contamination were found in several houses. However, until now, no immediate remediation was undertaken. However, some remediation is now considered necessary in order to comply with the dose limit of 1 mSv per year if a person is assumed to live in the contaminated rooms. As a result of a concerned population, the government asked the regulatory body (Swiss federal office of public health) to react and solve this problem.

Hence, a radium action plan was launched by the SFOPH in order to systematically search, find, measure and remediate sites where contamination is still present. This action plan is supposed to last from 2015 to 2020 until all potentially contaminated locations are found and remediated if necessary. The financing of this action plan is under discussion.