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Enhancing Radiation Safety on NORM Management at Tin Industry to Increase Sustainable Production

Indonesia is the second largest tin producer in the world so this industry is one of the industries that influences Indonesia's incomes, especially in Bangka Belitung Islands Province. As is commonly known, the tin industry produces Naturally Occurring Radioactive Mineral (NORM) in its production process, so it requires a proper management from mining, processing and smelting. The tin industry in Indonesia consists of large companies, medium companies, small companies and micro companies. With the company levels from large to micro companies, the radiation safety management is very different. From the research conducted in 2019 to 2021, the radiation safety on average is still weak and several recommendations have been made for improvement, such as raw material handling methods, processing methods, product handling and residue handling which can be in the form of interim storage, re-processing or disposal. Several things have been done to improve this safety, namely conducting radiation safety socialization to stakeholders, holding workshops, applying existing regulations, and making efforts to change regulations according to international recommendations and current conditions in Indonesia. The impacts of safety on sustainable production of tin industry would be discussed in the paper. By improving radiation safety, the sustainability of tin production in Indonesia will be even better, both from an economic, social and environmental perspective.

Key word : Radiation safety, tin industry, sustainability, NORM, Management

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