

**International Conference on Occupational Radiation Protection:  
Strengthening Radiation Protection of Workers –Twenty Years of Progress  
and the Way Forward**

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## **Lesson learned and challenge to regulate occupational exposures for industrial workers and related industries in THAILAND**

In THAILAND, radioactive material and radiation activities are widely used. This paper shows the lesson learned and challenge concerned radiation exposures in industrial fields. The minimum requirements for licensee during operation gamma irradiation facility were radiological monitoring system, safety or interlock system, operation and emergency procedures, radiological protection, individual dose record for workers and radiological inspection report not included service room area. On that time, the slightly occupational radiation dose for workers by personal radiation dosimeters were found. High radiation levels were detected at resin filter of recirculating water system by Radiation Safety Officer (RSO). Cobalt-60 encouraged for radionuclide after identification by expert team. After verification the source pencil in the pool was cracked. This incident brought the new guideline for safety in gamma irradiation facility. Meanwhile, occupational exposures for radiation workers in radiographic testing fields have been found. In some cases, the workers were not awareness radiation exposures in practice because limitation at workplace and lack of safety culture such as inactive collimators during radiographic testing operation or suitable operational planning before perform work. Especially incomes for workers have been acquired that depended on amount of the film records. Although dose limits for workers and public were stipulated in ministry regulation but dose constraints were not clearly determination. The blinding regulation quantity 4,000  $\mu\text{Sv/month}$  for workers were specified. On the other hand, some workers are still expose to radiation dose more than blinding regulation. The implementation of measures and soft power have been establishing to protect the workers continuously perform. Furthermore, the by-product from steel mill plant such as slag and red dust are issues to consider in THAILAND. Because of radioactive contamination in scrap material bring to furnace then contaminated radiation in system and by product. The huge red dust which contaminated radiation have to manage and into the Technologically Enhanced Naturally Occurring Radioactive Material. Whatever all of incidents are challenges related with radiation protection to people and environment.

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