

ALARA and NORM: Problems to be solved

Peter Shaw¹ and Jan van der Steen²

¹ HPA Radiation Protection Division, Occupational Services Department, Leeds, UK

² NRG, Arnhem, Netherlands

Key words: ALARA, optimisation, NORM, Naturally Occurring Radioactive Material

ABSTRACT

A wide variety of industries process NORM, often on a large scale, and workplaces involving NORM exist in most, if not all, countries. In some processes, the potential for occupational radiation exposures can be significant, and the need to control such exposures has been recognised for many years. As noted in the 9th EAN workshop⁽¹⁾:

“most (EC) member states do have regulations for the control of occupational exposures from NORM...”; however

“many NORM industries have only recently become aware of the need for radiological controls. Consequently, they have not benefited from “ALARA in design” considerations, and the concept of “ALARA in operation” has yet to be fully developed”

Although the 9th EAN workshop produced a number of recommendations aimed at promoting ALARA in NORM workplaces, it is still the case that this concept has yet to be fully explored and developed. Consequently, the aim of this paper is simply to list some of the issues and problems relevant to the application of ALARA in practice. This list is compiled under three main headings, i.e.:

- What ALARA issues arise from the introduction of radiation protection regulations to NORM workplaces?
- What do other (non-radiation protection) safety requirements achieve in terms of ALARA?
- What can we learn from NORM workplaces that have tried to implement ALARA in practice?