

## **Input for practical dose-assessment in NORM industries.**

**W. SCHROEYERS\***, **V. PELLENS**, **T. CLERCKX**, **L. HULSHAGEN**, **Ch. VANDERVELPEN\*** and **S. SCHREURS**

*Nucleair Technologisch Centrum (NuTeC), XIOS University College Limburg,  
Technologiecentrum, Wetenschapspark 27, 3590 Diepenbeek, BELGIUM.*

### **Abstract**

In collaboration with the Belgian Federal Agency for Nuclear Control and the Customs Department at the Port of Antwerp a 2 year NORM research project was realized. Within the framework of this project, supported by EFRO and the ministry of the Flemish community, a database was constructed of the NORM traffic that passes through the port of Antwerp. On the basis of this database and the 'positive' list of industrial NORM sectors provided by the new BSS, several NORM companies were selected for detailed case studies. A newly developed practical method enables NORM companies to have a rapid estimation of the activity concentration for each naturally occurring radionuclide found. The method allows the comparison of the activity concentration with the exempt activity concentrations proposed in the new BSS. The scope of the project was to prepare NORM companies for the new BSS and to track potential practical problems related to the implementation of these new European regulations. In the current presentation a simplified methodology for dose-assessment is applied on these case studies and the conclusions of the NORM research project are presented.

***KEYWORDS: NORM database, nuclear measurement techniques, activity concentration, practical dose assessment.***

---

\* Presenting authors, E-mail: [wouter.schroeyers@xios.be](mailto:wouter.schroeyers@xios.be); [chris.vandervelpen@xios.be](mailto:chris.vandervelpen@xios.be)