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Working group 4:
The ALARA process in radiography – setting suitable dose and risk constraints

suvapro
Sicher arbeiten

Lektion-Nr.: xxx

Establish a dose constraint:

- Caution: If authorities are too strict with dose constraints, licensees may not want to report problems ….
- Make better use of the information in the dose register,
- **Choose dose constraint**: for example, 10 mSv within the company in France, in Switzerland companies have an internal dose constraint set by the company. Values depend on individual situations.
- Goal setting: Authority and licensees set **dose goal** (for example, no worker should receive more than ….4 mSv ? per year)

Involving clients

- Concentrate on safety culture/training of clients and make them aware by providing guidance doc/check list:
  - When NDT company is coming to the site, they should ask questions.
  - Local rules, risk assessment on site (including whom to contact in case of emergency) must be known by the NDT companies coming in for work
  - Society for RP is providing this guidance for such checklists, which can be downloaded from their homepage

“good practice” issues

- Swiss example of using the **APP “Swiss NDT”** calculating the dose rate and where the controlled area is (input: source used, beam time per week, inside or outside of building, etc.), recommended by SUVA in their training courses
- STUK **incident rehearsal** with dummy device, practice case when source is not retrievable, locate source, shield source, ...
- Within the company: site RPO **audit** their **colleagues** working in other teams …
- Improve exchange of information between authorities and clients
- involve clients in inspection work (unannounced inspection)

good practice issues

- **Notification system for all site NDT**: For example mandatory notification to authority usually 4 days in advance with possible approval of exceptions in case of urgent work.
  - To provide possibility of unannounced on site inspections.
- Supervision of radiographers doses …
  - Authority contacts company in case of unusual doses.
- Do not mix older and newer parts of equipment …
- Promote use of Se-75 and small controlled area projectors.
- Regular maintenance of equipment … to prevent accidents
- Encourage use of EPD (mandatory?)
  - Reason: appropriate alarms on dose rates; good test (by company RPO), if EPDs are worn by radiographers; useful for accident investigation

good practice issues

- Mandatory use of "gamma alarms" (already implemented in many countries)
- Authority should make licensees aware of new developments; safer techniques; interlock systems; Gamma alarms;

Remaining questions

- What is the best way of sharing and disseminating information on dose constraints within the radiography and radiation protection communities?
- Is it possible to set a risk constraint, i.e. based on the probability and magnitude of accidents? If so, how would this be done?