15th ALARA Network Workshop and 5th EUTERP Workshop
Education and Training in Radiation Protection – Improving ALARA Culture
Rovinj/Croatia, May 2014

PROVIDING QUALIFICATIONS AS THE KEY TO PROFESSIONAL RADIATION PROTECTION CULTURE

RP Education and Training in Germany in the light of the new EURATOM BSS

Julian Vogel, Ralf Stegemann
Division RS II 3 – Supervision in Radiation Protection
julian.vogel@bmub.bund.de, rsii3@bmub.bund.de

Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

RP culture, E&T, and the BSS

- Protection culture strongly dependant on personal qualifications
- E&T of staff and experts predominantly important so ensure availability of expertise and awareness

Official Journal of the European Union

ISSN 1977-0677

L 13

English edition

Legislation

Volume 57

17 January 2014

Contents

II *Non-legislative acts*

DIRECTIVES

★ Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom 1

- E&T Closely linked to conferral of responsibility and accountability
- Existing national systems challenged by new functions in 2013 BSS?

RP Functions in Germany

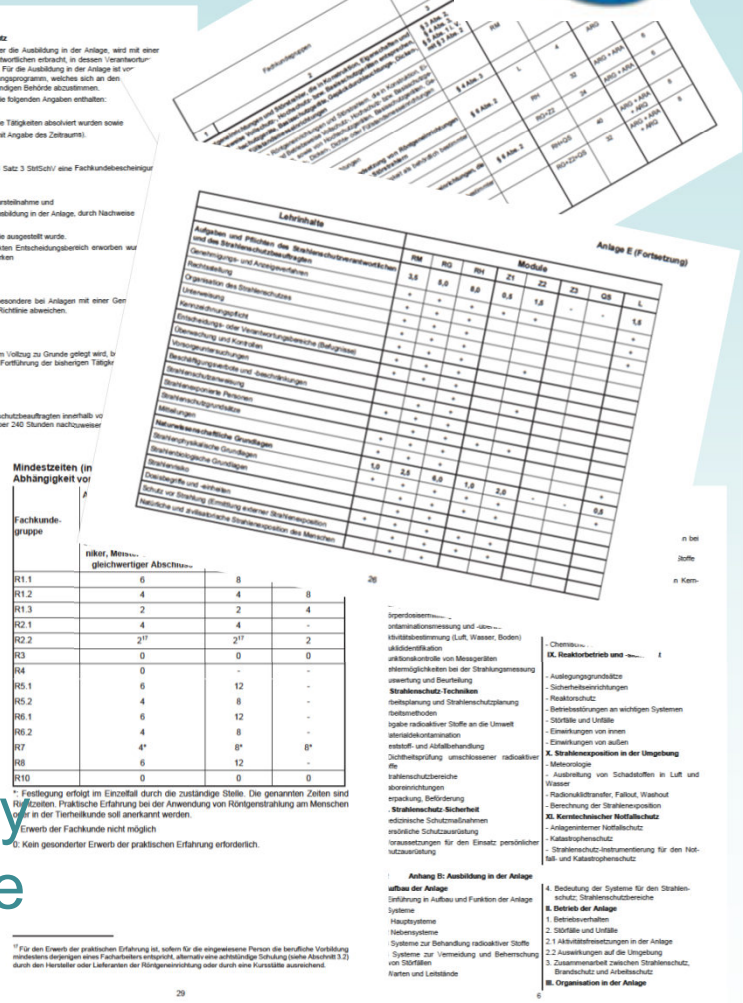
- Strahlenschutzverantwortlicher (**SSV**), *"RP Executive"*
  - Owner/director/board member of undertaking
  - Accountable for all legal duties of undertaking

- Strahlenschutzbeauftragter (**SSB**), *"RP Supervisor"*
  - Designated by SSV, number as required
  - Responsible for implementation of RP
  - Personal legal duties (for area of designation)

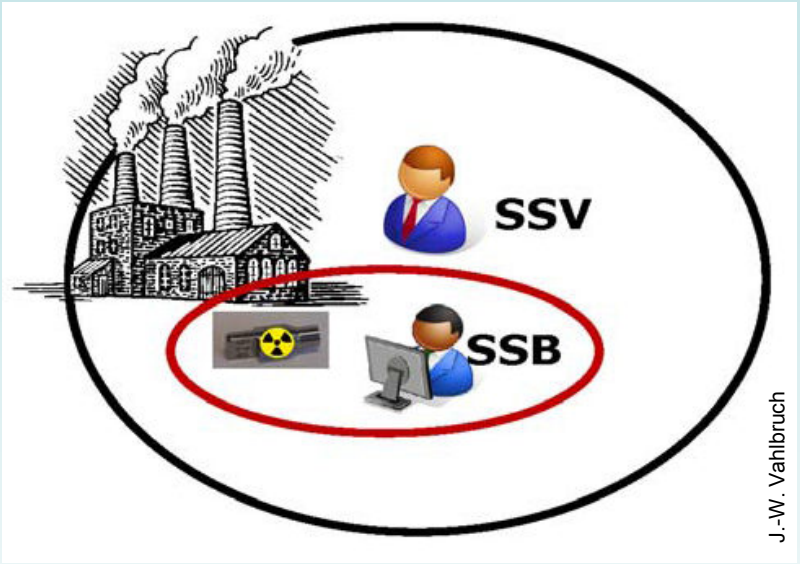
- Preconditions for designation of SSB
  1. Personal Professional **Integrity**
  2. **Competences** within undertaking to perform duties
  3. "Requisite **Expertise** in RP"
- NB. translations to EN may vary (non-standardized)

“Requisite Expertise in RP”

- Requirements
  1. Appropriate professional **education**
  2. Successful completion of **courses** in RP
  3. Sufficient professional **experience** in relevant practice
- Examined and conferred by competent body
- Concrete requirements in regulatory guidelines (~ 60 groups of expertise depending on type of practice)



DE system of Responsibilities



Advantages of DE system

- Responsibilities very clearly assigned
- Accountable person available in undertaking
- Person with expertise available „in-house“

Limitations of training (graded approach)

- Level of qualification dependant on risk of practice
- Recognition only valid within limits of qualification
- For low-risk practices only limited training is feasible

RPE and RPO in the new BSS

Personal qualifications **strengthened** in 2013 BSS: framework for E&T and recognition – focus here on two "new" functions

Radiation Protection Expert

- "having the knowledge, training and experience needed to give advice"
- "**competence recognised** by the comp. authority"
- "may be assigned tasks"

➲ undertaking **required** "to seek advice from RPE"

Radiation Protection Officer

- "technically competent [...for a…] type of practice"
- "supervise or perform the implementation"
- "undertakings […provide…] with the **means necessary**"

➲ new function, **optional for** implementation by **MS**

RPE in BSS: Facts and Fiction

Concepts of RPE/RPO are used in other contexts – leads to some confusion what BSS do (not) require or prescribe

RPE works full-time in RP (RPO may work part-time) ✗

RPE not responsible for implementation of tasks ≈

RPE must be independent from undertaking ✗

RPO duties may be assigned to RPE ✓

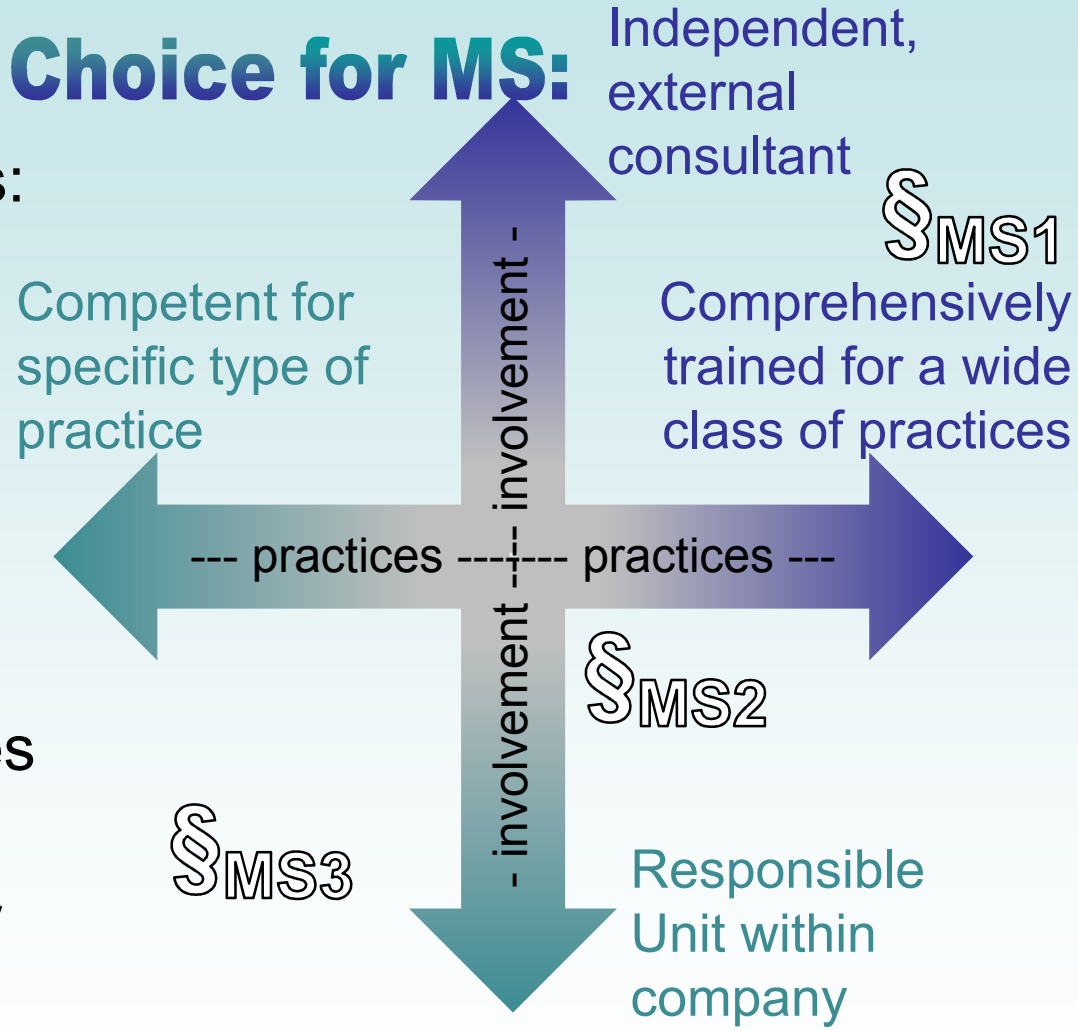
RPE practically identical to „qualified expert“ from 96 BSS ✓

RPE is in EQF level 6/7/8
EQF/ECVET NOT applicable to the scope of EURATOM! ⊘

RPE must have university degree ✗

Implementing the RPE

- Assignment of legal duties / responsibilities: National competence
- **Not one**, but 28 (**systems of**) **RPE**
- Various options must be respected by
  - model curricula
  - recognition schemes
- Personal prediction: Diversity will be **larger** than for 96 BSS



Correspondence DE / EU

Under-taking

RPE
Recognized competence

RPO
Means provided by u.

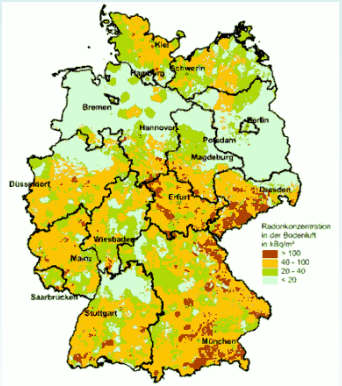
SSV
"Head" of undertaking

SSB
Requisite expertise in RP
Competence within u.

- Reworking legislation is work in (first steps of) progress
- Change of system only viable if RP is improved
- Profound changes **not** foreseen for most practices

Challenges for E&T

- New fields of RP regulation
  - NORM activities now regulated as practices
  - Radon (at workplaces)
  - Spacecrew



Report t o Pariament 2009

BfS

BfS (Oil and gad industry)

- Information and Training of workers (less international work done so far?)

- New technologies (e. g., medical sector!)
- New forms of teaching and learning
- International exchange welcome and important

Take Home

Nicolas Brignol, CC-BY-SA-2.0-FR

- **BSS** offers a multitude of options for implementation
- Successful **guidance** (or reference standards) have to **respect** this **diversity**
- Ensuring quality of E&T remains a challenge

- Germany has implemented a system based on
  - **clear responsibilities**
  - and a **graded approach** to training requirements
  - **in line with** the 2013 **BSS**

Hans Weingartz, CC-BY-SA-2.0-DE