Guy Vanderschelde – Daniël Marloye – Rony Dresselaers

Implementing international security guidelines into the Belgian regulatory framework

practical issues

PREFACE

- Challenge
  - updating the legal framework for PP of nuclear materials, installations and transports
  - using most recent international guidelines and commitments
- Triggers & drivers
  - INFCIRC 274 – rev. 1
  - INFCIRC 225 – rev. 4
  - Workshops
  - round tables on specific topics
  - IAFA (Initial Action File Agreement)

→ first close cooperation between FANC, Bel V and other stakeholders on the field of nuclear security

→ Belgian law and its royal decrees published during the year 2011

MISSION

- How to further improve (“close”) the possible gap between:
  - laws and regulations
  - the real-world of surveying and control

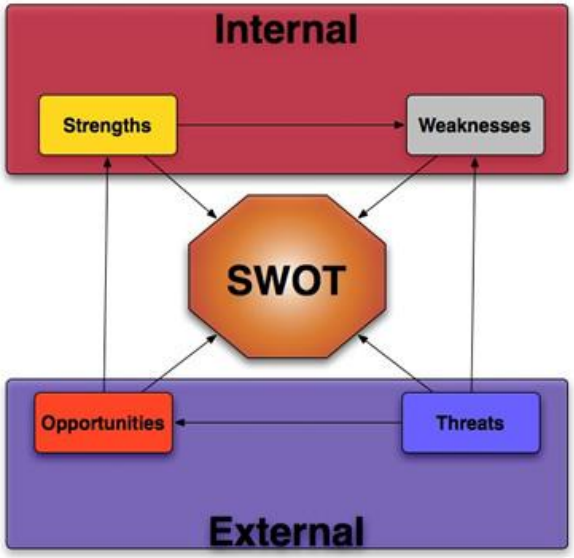
  Example: fencing out the site is required by law

  How do we control and inspect this feature ?
    - design standards ?
    - height ?
    - material ?
    - anchoring (depth, material,…) ?
    - . . . ?

→ building an implementation strategy seemed logically the next step to enhance the I(ntegrated) I(nspection) C(ontrol) - activities

MISSION

- Building an implementation strategy on IIC
  - there is a need for an assessment on strengths, weaknesses, opportunities and threats, a so-called SWOT-analysis.
  - strengths and weaknesses are intrinsic (potential) value creating skills
  - opportunities and threats are external factors not created by the company



MISSION

- Identifying the strengths, weaknesses, opportunities and threats

Strengths¶		Weaknesses¶		
S1:¤	Combining·the·competences·of·FANC·and·BELV¤	W1:¤	No· sufficient· security· training· programs· available· on· the·open·market¤	INTERNAL¤
S2:¤	Creating· a· reference· framework· for· control· and· inspection¤	W2:¤	National· rules· and· regulations· on· security· scattered· over· a· lot· of· different· regulatory· and· regional· bodies· (i.e.· insurance,· construction· business· line,· economics· department,…)·in·Belgium¤	
O1:¤	Structured·approach·of·the·credible·threats·(DBT)¤	T1:¤	Contents· of· the· authorization· file,· issued· by· the· management·of·the·nuclear·plant,·are·not·compliant¤	EXTERNAL¤
O2:¤	Evaluate· the· interaction· between· nuclear· safety· & security¤	T2:¤	Treatment·of·"sensible"·information·in·the·authorization· file·by·the·management·of·the·nuclear·plant¤	
O3:¤	Identify·the·delay·time·of·the·PPS·and·the·response· time·of·the·intervention·team(s)¤	T3:¤	How· to· handle· the· aspect· "insider· threat"· (URC(*)· included)?¤	
¤	¤	T4:¤	The·possible·impact·of·beyond·DBT·threats·(BDBT)·)¤	
¤	¤	T5:¤	The·use·of·foreign·standards·and·guidelines·in·the·local· (nuclear)·security·policy¤	
Opportunities¶		Threats¶		

MISSION

- Determining the Key Success Factors (KSF's) for an IIC-approach
  - Establishing a confrontation matrix in order to derive the KSF's

	O1	O2	O3	T1	T2	T3	T4	T5
S1	OK	OK	NR	OK	OK	KSF#01	NR	KSF#02
S2	OK	OK	OK	OK	KSF#01	KSF#01	NR	KSF#02
W1	KSF#03	KSF#03	KSF#03	KSF#03	NR	KSF#03	NR	KSF#03
W2	NR	NR	NR	KSF#04	OK	NR	NR	KSF#05

Legend:
***OK**: topic sufficiently covered by internal and external elements*
***NR**: no relevancy or no legal competence*
***KSF#**: Key Success Factor #number*

MISSION

- Determining the impact of the KSF's
  - scope: highlighting the KSF's with: an impact on daily business
    OR
    a change of mindset needed
  - results → 5 KSF's to be treated more in detail:
    1. insider threat
    2. national safety/security culture
    3. training needs and resources
    4. & 5. current regulations, standards,…in Belgium and across border

MISSION

- Insider Threat (KSF#01)
  - People represent the weakest link in the chain of protection

    → an effective risk analysis and procedure is mandatory.

    - "Food for thought":
      - ✓ organisations develop activities like recruiting, training, promoting and dismissing; those activities are convenient tools to manage, detect and prevent insider risks;
      - ✓ tools like security awareness, motivation screening, detection of dissatisfaction and/or emotions of injustice aid the perception and prediction of insider threat.

MISSION

- If one speaks about insider threat, it implies also human factors and procedures (cfr. IAEA-publication NSS, but also ISO 10018).

  - "Food for thought":

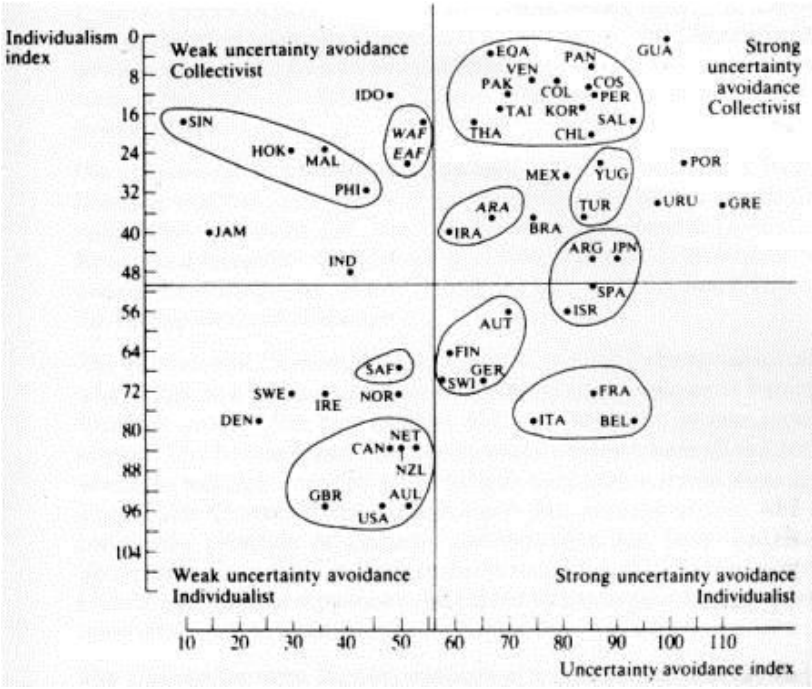
    - ✓ procedure saturation: does it exist and how to prevent it ?
    - ✓ the distribution of the information during audits, inspection and controls needs special attention (cfr. ISO 19011).

MISSION

- National safety/security culture vs. the use of foreign standards and codes of best practices (KSF#02)

  - the nuclear security culture is mainly elaborated at national or even local level

  - as an illustration of the „local“ aspect of the national culture, Geert Hofstede made a benchmark in 5 dimensions on cultural differences for over one hundred countries.



MISSION

- on technical level, one can also detect problems

bollards tested and classified, according an American standard, garantuees nothing while installed in Europe.

Reason: the American trucks, used for the classification test, don't have the same morphology as the European trucks.

A PAS 68-rating is to be preferred over a K12-rating.

MISSION

- Training resources (KSF#03)
  - If we compare the number of trainings available in the field of nuclear safety we only conclude that in the field of nuclear security not a lot of training courses exist.

  - A table-top exercise Bel V–FANC was launched to have a first practical experience on the evaluation of a (fictive) authorization file.
    Analyzing this fictive file gave us already some impressions on the possible problems that could occur.

MISSION

- Structured view on current regulations, standards and codes of best practices in Belgium and across border (KSF#04 & 05)
  - A Knowledge Base on Physical Protection was drawn up to back-up the control function of the authorization files (internal document)

MISSION

KNOWLEDGE BASE
PHYSICAL PROTECTION

PILAR	PART	QUALIFYING PARAMETERS	REGULATORY FRAMEWORK									TERMS & RESTRAINTS REGULATORY FRAMEWORK
		Guidance words (AOT = Advanced and Other Technologies)		LAW	STANDARD	BEST PRACTICES	National	European	International	Priority	Nuclear specification	
1.	**PERIMETERS**											
	FENCE	General	INFCIRC 225/rev.5 NRC 10 CFR 73		X				X	P4		§5.2.4.4

LESSONS LEARNED

- Conclusions:
  - The increasing importance of human factors (insider threat);
  - The importance of the impact of the national (security) culture of the country of origin on the developed standards and codes of good practices;
  - The absence of a clear overview of the existing standards and codes of best practices on the national level;
  - Building an authorization file request equals gathering all the sensible information on Physical Protection at one file;
  - The results of the IAFA-action showed that more clarifications were needed to avoid as much as possible weaknesses in the issued authorization files requests;
  - Setoffs in safety and security policy will most probably emerge in daily practice whenever changes on installations have to be managed (MoCh);

Special thanks to Chris D., Inez G., Gerard N., Luc V., Simon V., Stéphane C. & the Federal Agency, Dpt. Security & Transport