QUESTIONNAIRE FOR PREPARING THE REGULATORY BODY MEETING in conjunction to the ISOE-Symposium in Cambridge 2010

INVITATION

In conjunction with the 2010 ISOE Symposium, 17-19 November 2010, we are preparing a 4rd Senior Regulatory Body Representatives meeting, to be held 16. November 2010 in Cambridge (UK). We hope to encourage your participation in this meeting which follows on from the very successful Regulatory Body representatives meetings in 2004 (Lyon), 2006 (Essen) and 2008 (Turku). The purpose of the meeting is to provide a forum for open exchange and discussion within specialised regulatory audience concerned with occupational radiation protection. Subsequent to the ISOE-Symposium 2009 in Vienna several representatives of regulatory bodies expressed their interest on the exchange of information about: "How **Lessons Learned from Radiological Events** are drawn up, reported and distributed among RP-responsibles in NPP, training facilities, companies and countries".

MOTIVATION

The feedback from events is highly valuable, because the lessons learned show necessary improvements on actual weak points in the Radiation Protection Program. Lessons learned from events may show aspects, which are not considered either in legal regulations, company rules, RP-planning nor in RP training courses. These weak points may exist also in other units, plants, companies or countries. Therefore lessons learned have to reach all persons who may be concerned, so the repetition of similar events will be prevented.

About the distribution of information about radiological events on an international level, see the instructive presentation from Helena Janzekovic "Use of IRS and OSMIR Database – Lessons Learned" at the last ISOE 2009 Symposium. It is shown that both databases can be successfully used complementary to the ISODATA. These international reporting systems shall not be the main topic of this RB information exchange.

OBJECTIVES OF THE MEETING

The main objectives of the meeting are:

- To meet with regulators from other organisations to exchange information regarding regulatory standards and rules on
  - the criteria defined for nomination a deviation or departures from standard operational parameters, faults, defects, finding, malfunction, incident or accident as a radiological event of interest,
  - the company procedure on reporting internal, analysing the direct causes, the root causes, the increasing or decreasing factors, the radiological consequences, determining the lessons learned and package of measures (the common expression for this procedure is "Operational Experience Feedback" OEF, see for example NEA Committee on Nuclear Regulatory Activities/ Working Group on Operating Experience)
  - the criteria and the way for reporting the information about event to the regulatory body
  - the way how the information are distributed among RP-responsibles in other NPP, training facilities, companies and countries
- The focus should be on events, which have or may have radiological consequences on the staff or which occurred in the area of responsibility of the NPP Radiation Protection Organisation (this may include also uncontrolled releases inside and outside the NPP)

- This meeting will not deal with aspects of events in other fields of nuclear safety (loss of control on criticality, loss control on fuel cooling, deviation from transportation rules, …) will not be considered.
- To help to improve national regulatory effectiveness on occupational radiation protection by comparing national reality versus international context

AGENDA OF THE REGULATORY BODY MEETING

- Introduction of the different representatives
- Brief presentation on national requirements to support feedback from radiological events. Additional some interesting examples of lessons learned may be shown (around 15 min)
- Discussion of terms, differences, special approaches and innovative ideas to support the feedback
- Conclusions: Collection of exemplary approaches to get and distribute lessons learned

OBJECTIVES OF THE QUESTIONNAIRE

In order to introduce the Regulatory Body representatives meeting it is expected to draw an overview of **regulatory control on feedback from radiological events in NPPs from an occupational perspective** in the different ISOE member countries with their similarities and differences.

Therefore we would like you to answer, briefly, the following questionnaire to stimulate information exchange and discussions. Only one response per country is necessary.

Please do not go into the details, just describe a few “objective data”.

Even in case you will not be able to attend the meeting the information you can provide is precious. If you agree, questionnaires filled in by national authorities will be sent to all contacts participating in ISOE.

Yes, I agree
No, the information should be sent only sent only to the RB participating in ISOE
No, the information should be used only in the RB-meeting

COUNTRY AND REPRESENTATIVE IDENTIFICATION

- **Country**: Sweden
- **Name of the Regulatory Body:** Swedish Radiation Safety Authority (SSM)
- **Name and post of the person(s) who fill in the questionnaire:**
  Karin Fritioff
  Analyst/Inspector, Dep. of Nuclear Power Plant Safety
  Birgitta Ekström
  Analyst/Inspector, Dep. of Nuclear Power Plant Safety
  Ernesto Fumero
  Analyst, Dep. Of Radioactive Materials

REGULATORY RIQUIREMENTS ABOUT REPORTING RADIOLOGICAL EVENTS

- **Criteria**

  - Does your legislation specify criteria for nomination a near miss event, a minor damage, a deviation, a finding, an incident or an accident as a radiological event of interest
    Yes
  - If no, does some official document of the licensee specify these criteria?
    …..(they also do)
  - What are the most important radiological criteria?
    Regulations:
    a) Exceeding the annual exposure limit or any other dose constraints of

occupational exposed persons:	50 mSv effective dose (100 mSv during 5 consecutive years), 500 mSv for skin, 500 mSv for extremities, 150 mSv for the lens of the eye
persons of the public:	0,1 mSv (from effluents from one NPP) 15 mSv for the lens of the eye (sum all contrib.. doses) 50 mSv for skin (sum all contributing doses)
Students….	

    b) Investigation of an unexpected incorporation of activity above the minimum detectable level of 0,25 mSv.
    c) Surface contamination should not be above 40 kBq/m2 (beta, gamma) or above 4 kBq/m2 (alfa) in areas where you can drink water etc.

  - Does your legislation specify criteria for reporting
    a) only to company internal,
    b) to the regulatory body,
    c) to international information platforms as INES, IRS and so on?
    only b)
  - If yes, do the criteria for nomination (for NPP internal analysis and feedback) differ from those criteria for reporting to the regulatory body?
    …..

- **Differentiation of types/categories of radiological events?**

  - Do the legislation/company rule define different types/category of radiological events?
    Regulation:
    Yes, in a way. We do not call them different categories but we have:
    1) radiological events during normal operation (not categorized further but if an intake more than 5 mSv there should be a more thorough report made.)
    2) other radiological event (these are categorized H2 – H5 dependeing on there severity)

  - If yes, for which purpose do you use different types of radiological events?
    For number 2 above, to decide whether to start up the emergency organisation and in which way

REGULATORY RIQUIREMENTS ABOUT REPORTING RADIOLOGICAL EVENTS

- Do the legislation use another categorisation instead of INES?
  No
-
- Which categories are defined in your legislation?
  See first question in this sub-section.

❑ **Legislation concerning different aspects or steps for management of radiological events**

- Does your legislation specify different aspects or steps for management of radiological events?
  Yes
- If so, which aspects or steps are specified in the legal framework?
  For radiological events during normal operation:
  The legal framework says that all events which are of importance from a radiological viewpoint shall be reported to the authority. If the event leads to (or could have led to) exceedance of an established dose limit, it shall be reported as soon as possible.

  It also says that if there is an intake, at one single occasion, which results in a dose of 5 mSv or more, the authority shall have a written report stating: type of intake, calculated internal dose, basis for calculation, analysis of the cause.

  For other events there is….

❑ **Legal framework on experience feedback from radiological events**

- Does your legal framework have requirements on the operational experience feedback (OEF) from radiological events?
  Yes, however only in general terms.
- If so, give a short description of the content of references:
  In our regulation we state that a follow-up of the RP activities should be done and the RP activities should be evaluated. This includes the OEF from events.
- Does your legislation specify different aspects or steps of operational experience feedback?
  Yes.
- If so, which aspects or steps of OEF are specified in the legal framework?
  Reporting of information about event to regulatory body.

❑ **Ways and tools to support the operational experience feedback OEF from radiological events?**

- Which ways or tools exist or are described in the legislation, guidelines or company instruction to support the OEF from radiological events within companies, among other NPP or country wide?
  The NPPs in Sweden have different type of computer-based systems to support the OEF. An identified problem is how to collect the lessons learned after an event (or just a good practice) from contractors.