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"What can on-site inspectors and support staffs of the inspected state party learn from dealing with the long-term consequences of radiological emergencies?"

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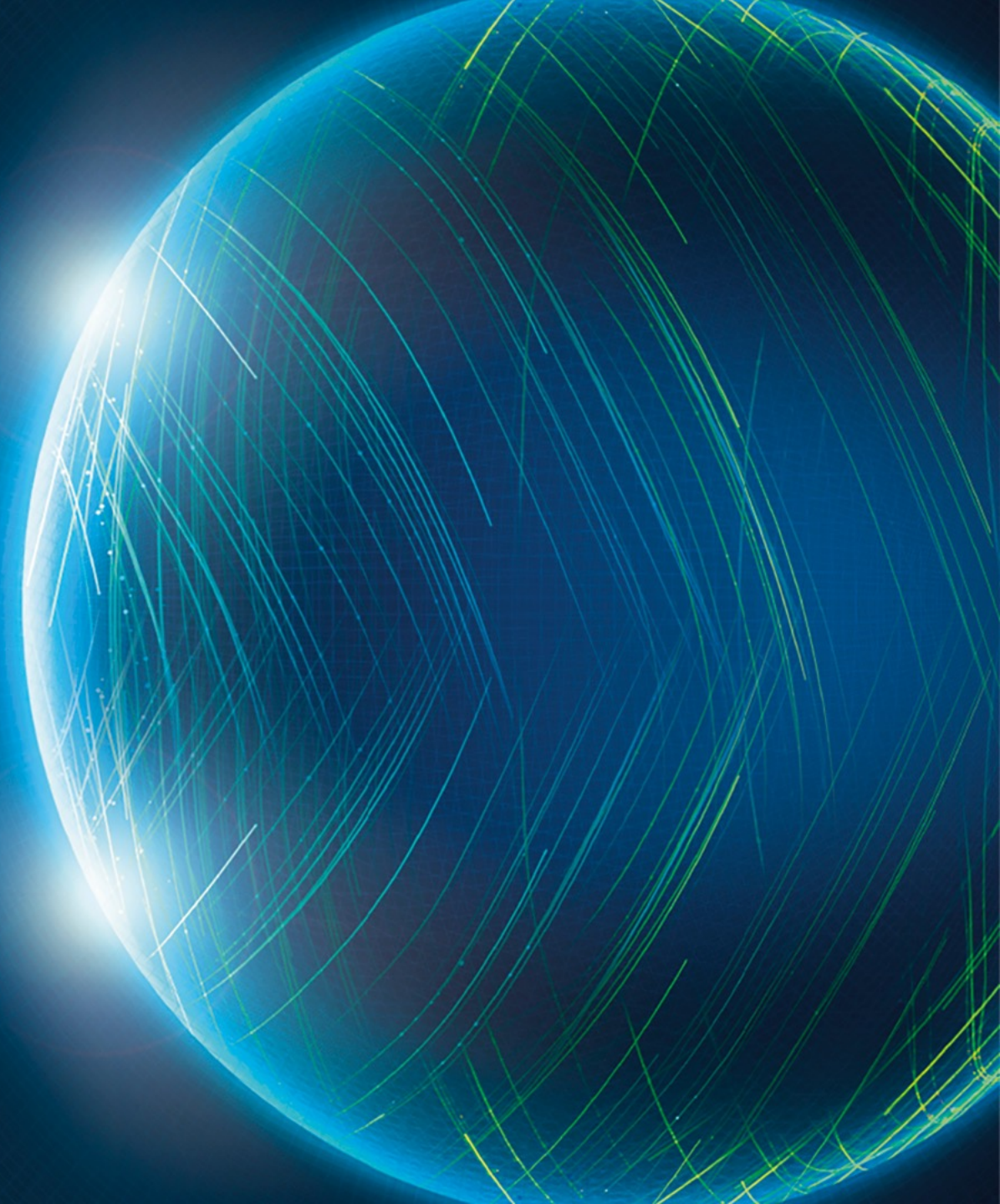

"What can on-site inspectors and support staff of the inspected state party learn from dealing with the long-term consequences of radiological emergencies?" with ID #275
"T4.5 On-Site Inspection Team Functionality"

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The Chernobyl and Fukushima accidents have shown that the so-called “co-expertise” process is an effective lever for empowering the affected people in order to give them the means to make informed decisions concerning their own protection. In the event of an on-site inspection (OSI) under the CTBT, inspectors and support staffs of the inspected state party are likely to encounter radioactive contamination in the environment of the inspection area. This situation has similarities to the experience of residents of an area with radiation hazards due to a past radiation emergency. For this reason, the co-expertise process can be a model for training on-site inspectors and inspection teams and addressing their concerns about the consequences of radiological contamination in the OSI inspection area. After a reminder of the constituent elements of the co-expertise approach, the presentation describes how the latter could be adapted to serve as a support for the preparation for inspection interventions.

Promotional text

This presentation describes how the experience of co-expertise, which is recommended by the International Commission on Radiological Protection (ICRP), can be a model to train on-site inspectors and inspecting parties and to deal with their concerns about the consequences of radiological contamination in the OSI area.

Introduction:

- The Chernobyl and Fukushima experiences have demonstrated that approaches involving the **active cooperation between authorities, experts, and those affected** into the recovery process, is an effective way to empower them in order they make informed decisions about their own protection and that of their loved ones

- This cooperation also improves the **effectiveness of the protection strategy implemented by authorities**

- In these approaches measurements made by experts and affected people to characterize the radiological situation **are playing a key role.**

What is at stake? Lessons from Chernobyl and Fukushima (1)

- After a nuclear accident people are lost, they no longer trust the authorities and experts, they gradually loose control of their daily life, there is a **threat on their dignity**
- The return to the ante situation is not possible:
  - Fully removing radioactivity is not achievable
  - Many human and societal consequences are irreversible (departures, etc.)
  - Disruption of communities is generating ruptures and complex dilemmas
- The socio-economic dynamic is confronted to an **altered context** with **new constraints** (demography, image, environment...)
- **Rebuilding social trust** requires **involving people** and relies on **direct cooperation** between stakeholders
- A key challenge is to **respect individual choices**

What is at stake? Lessons from Chernobyl and Fukushima (2)

- When engaging affected people, experts should:
  - Adopt a **prudent approach** for managing radiation risk based on the **optimisation principle** i.e. keeping **all exposures as low as reasonably achievable (ALARA)** taking into account societal, environmental and economic factors
  - Promote protective actions improving also the **well being of individuals** and the **quality of the living together** of the communities they belong
  - Keep in mind that the issue at stake is **not to make people accepting the risk** but allowing them **to make informed decisions** about their protection and their life choices
- All of the above lessons have led to gradually develop the so called '**co-expertise process**' (cooperation between experts and stakeholders) to favour the emergence of **practical radiological protection culture** among affected people

The co-expertise process:

Combining:

Two-way communication

Trust building

Citizen participation/ empowerment

Technical expertise

Experience of the co-expertise process in Fukushima

Kawauchi, Japan

Suetsugi, Japan

Kashiwa,Japan

Yamakiya, Japan

Adapting Co-Expertise for OSIs and Support Staffs Practice (1)

- The co-expertise process, driven by technical expertise, rational decision-making, trust building, stakeholder participation, and empowerment, can be adapted to effectively support preparation for inspection interventions
- This approach combines effective risk assessment and management with two-way communication, creating an environment where affected individuals can understand the important meaning of measurement results for their daily lives
- During On-Site Inspections (OSIs) under the Comprehensive Nuclear-Test-Ban Treaty (CTBT), inspectors and support staff may encounter radioactive contamination in the inspection areas
- This situation parallels the experiences of residents living in areas affected by past radiation emergencies

Adapting Co-Expertise for OSIs and Support Staffs Practice (2)

- A key challenge: to **transfer the practical radiological protection culture** among health and safety experts, on-site inspectors and support staff.
- Possible actions: to **develop a practical guide** for all stakeholders involved in on-site inspection
  - Create comprehensive and user-friendly guides that outline best practices for radiological protection during inspections.
  - Include information on safety protocols, decontamination procedures, and radiation monitoring techniques.
  - Ensure the guides are accessible to health and safety experts and all other parties being present during on-site inspection, facilitating knowledge transfer and understanding.

Developed by the French Authorities for Nuclear Safety (ASN) In cooperation with Stakeholders

Adapting Co-Expertise for OSIs and Support Staffs Practice (3)

Possible further actions:

- Facilitate collaboration between CTBTO, surrogate inspectors, and other stakeholders to adapt the co-expertise process
- Establish a comprehensive training program on co-expertise for surrogate inspectors and support staff incorporating practical exercises
- Promote knowledge sharing and learning from past radiological emergencies (Facilitate dialogue and information exchange between surrogate inspectors, support staff, and experts who have dealt with long-term consequences of radiological incidents
- Health and Safety experts to understand concerns about the consequences of radiological contamination in the OSI inspection area and to develop a protection strategy adjusted to the state of radiation hazard knowledge as it evolves while the surrogate inspectors move into the field.

Conclusion:

- Experience with the Chernobyl and Fukushima accidents have shown that to be successful the recovery process must rely on **mechanisms** securing:
  - An **open dialogue** between all stakeholders
  - **Experts at the service** of the affected stakeholders and the **support of authorities**
  - The **empowerment of surrogate inspectors and support staff** to decide about the timing and location of their inspection activities

- The most effective way of **engaging surrogate inspectors and support staff during on-site inspection after a suspected nuclear test** (cf. affected people in the recovery phase after a nuclear disaster) is:
  - To **listen** and **understand** their **daily concerns**
  - To carry out **measurements with them**
  - Without ever forgetting that communicating about risk only works if there is **trust** between the people affected and the experts / authorities

It is worthwhile to transfer this experience to empower OSIs and support staffs in order to improve the overall effectiveness and safe conduct of inspection processes under the CTBTO

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Thank you all for your attention!