

# ICRP

Basic stance of ICRP to the long term  
contaminated areas  
From ICRP Pub.103 to Pub. 111

Ohtsura Niwa  
[oniwa@house.rbc.kyoto-u.ac.jp](mailto:oniwa@house.rbc.kyoto-u.ac.jp)

# My talk

## 1. Basic stance of ICRP

From Pub.103, 109 and to 111

## 2. Current activities of ICRP

## 3. To end my talk

# Basic stance of ICRP (Pub. 103)

Purpose of radiation protection (RP)

Prevention of deterministic effects

Lowering of stochastic effects

Three exposure situations ;

planned, emergency and existing

# Basic stance of ICRP (Pub. 103)

## Planned exposure situations:

situations involving the planned introduction and operation of sources.

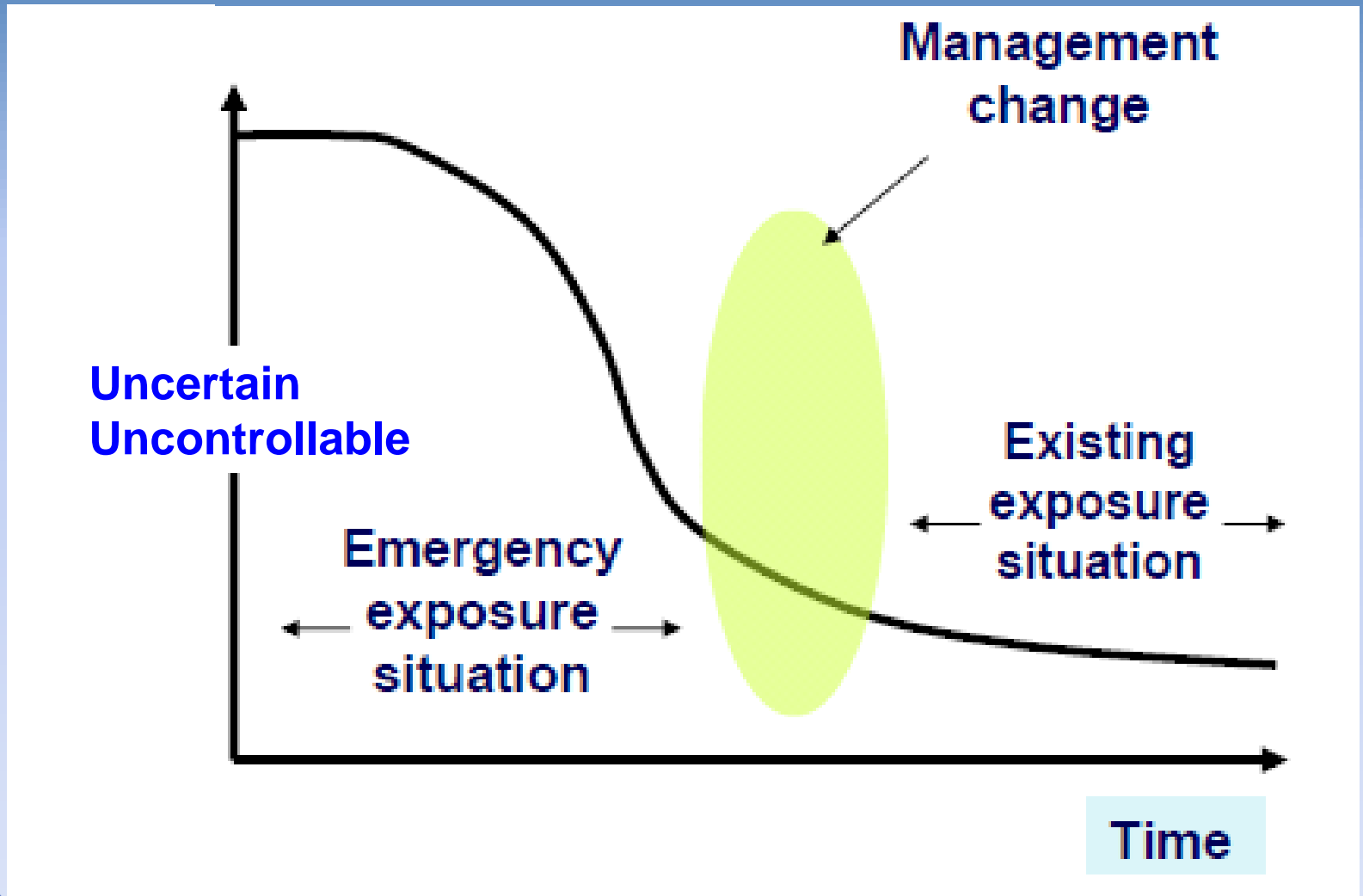
## Emergency situations:

unexpected situations such as those that may occur during the operation of a planned situation, or from a malicious act, requiring urgent attention.

## Existing situations:

exposure situations that already exist when a decision on control has to be taken, such as those caused by natural background radiation.

# Basic stance of ICRP (Pub. 109) From emergency to existing situation



# Basic stance of ICRP (Pub.109, Pub.111)

## Criteria of existing exposure situations

- The level of contamination and the dose are under control
- Government, local government, professionals and inhabitants are ready to take actions on the situation

Under the emergency situation, protection of health effects are the major issue.

In the existing situation, rehabilitation of the contaminated territories are the issue.

# Basic stance of ICRP (Pub.109, Pub.111)

## From emergency to existing situations

- Importance of stakeholder involvement increases toward the end of the emergency situation.
- Implementation and lifting of protection measures have to be informed to and agreed by stakeholders.
- Return to the contaminated territories has to be discussed and agreed by the stakeholders

# Pub.111



ELSEVIER

ICRP Publication 111

**ICRP**

Annals of the ICRP

## Application of the Commission's Recommendations to the Protection of People Living in Long-term Contaminated Areas after a Nuclear Accident or a Radiation Emergency

ICRP Publication 111

Approved by the Commission in October 2008



# Basic stance of ICRP (Pub.111)

## Transition to the existing situation

- Emergency situation shifts to existing situation, since a long term use of the reference level for the emergency situation cannot be accepted.
- Exposures have to be stable and tolerable in existing situations.
- Not only the health aspect, environmental, economical, societal, psychological, cultural, ethical and political aspects have to be considered.

# Basic stance of ICRP (Pub.111)

## Optimization of RP in existing situations

- Optimisation involves keeping exposures as low as reasonably achievable, taking into account economic and societal factors.
- Because of its judgemental nature of optimization, there is a strong need for transparency of the process, especially for the informed decision.
- Importance of the stakeholders' involvement in optimization and self-help protection measures.

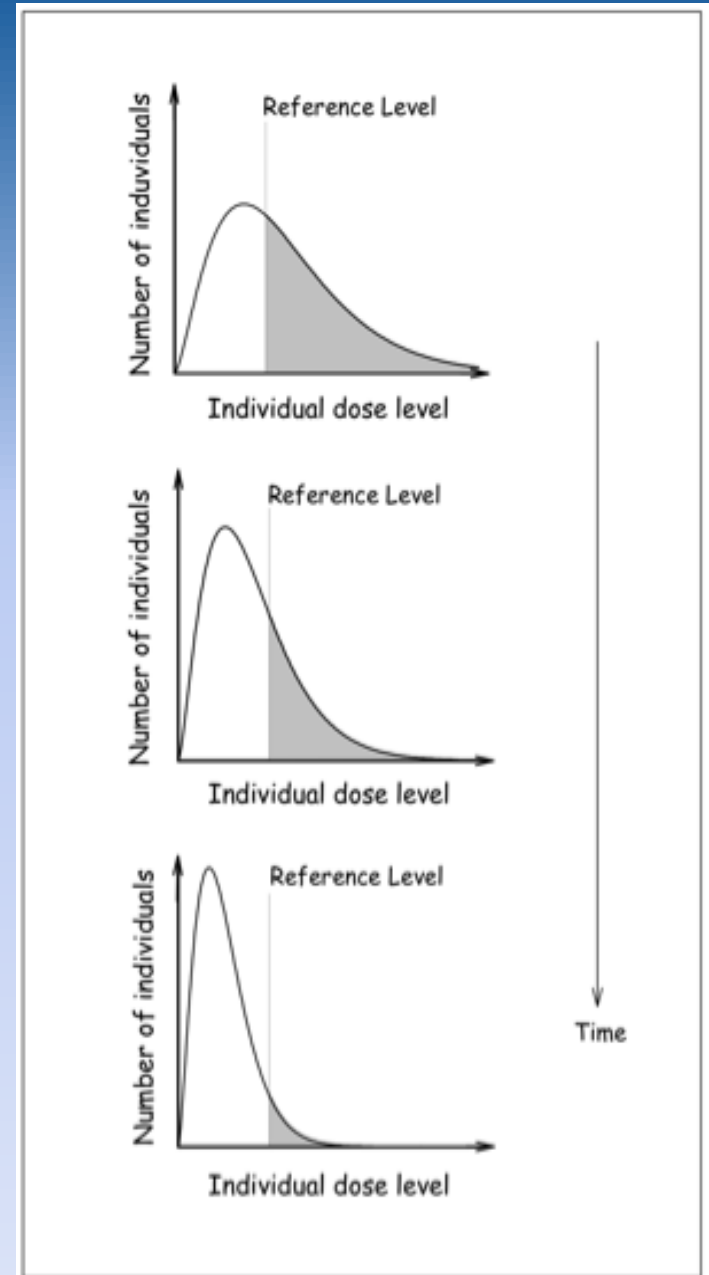
# Basic stance of ICRP (Pub.111)

## Reference level for optimization of RP

- Reference levels, set in terms of individual annual effective residual dose (mSv/year), should be used in conjunction with the planning and implementation of the optimisation process for exposures in existing exposure situations.
- The reference level for the optimisation of protection of people living in contaminated areas should be selected in the lower part of the 1–20 mSv/year band.
- The reference level is set at the end of the emergency exposure situation phase, when the decision is taken to allow people to live in the contaminated area.

# Basic stance of ICRP (Pub.111) Reference level for optimization

Stepwise decrease  
of the individual  
dose



# Basic stance of ICRP (Pub.111)

## Measures to be taken for existing situation

- Importance of a monitoring record system for assessing the effectiveness of radiation protection measures.
- Importance of health registries to assess the effectiveness of the long-term health surveillance of the affected population
- Importance of managements of contaminated foodstuff within the contaminated territory and its exportation to the outside communities.

# Basic stance of ICRP (Pub.111)

## Management of foodstuff and commercial items

- Conflict of interest exists for foodstuff management between contaminated and non contaminated territories
- Conflict has to be solved between two parties
- Guideline level of Codex uses a dose level of 1mSv/yr assuming a maximum of 10% of the diet consists of contaminated food.
- Disruption to the local economy through the restrictions on the sale of contaminated foodstuffs may not be warranted in terms of a benefit in dose reduction.

# ICRP activities on Fukushima

- ICRP Main Commission Meeting in Seoul in April had a session on Fukushima
- TG 84 on “Initial lessons learned from the NPP accident in Japan” was launched which tries to see problems of ICRP system of RP when applied in the Fukushima case.
- The 1<sup>st</sup> ICRP International Symposium in the end of this month have several talks on Fukushima
- Other various activities, including a small dialogue meeting with stakeholders of Fukushima

To end my talk







Thank you