

Emergency Planning (Preparedness) Within The Development Of A National Infrastructure For Nuclear Power

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IAEA

International Atomic Energy Agency

IEC - Mission Statement

Global Focal Point

for

**International Preparedness,
Communication and Response**

for

**Nuclear and Radiological Safety or
Security Related Incidents,
Emergencies, Threats or Events of
Media Interest**



IEC – Rational - Why are we needed

TODAY'S WORLD:

➔ Expansion of use of nuclear power and use of radiation sources

➔ 21st century threats



➔ Treaty obligations

IAEA emergency preparedness requirements and guidance

- Based on an examination of all past emergencies
- Address what should be in place for an adequate response
- Clearly reflected by the milestones

All severe NPP emergencies

Caused –or – made worse by operator actions:

- TMI
- Chernobyl
- These emergencies essentially stopped NPP development for 20 years

Because it was assumed it could not happen – severe – low probability events - not considered in training and development of onsite response actions.

Lack of local support over time

- Shoreham in 1984 given permission for low power tests but by the late 1980s local popular, political and business support collapsed (due to TMI & Chernobyl).
- In February 1983 local officials declared that the county could not be safely evacuated.
- **Failure to agree on evacuation plan was the official reason for the plant never being operated.**
- Billion \$ plant never operated

Emergency preparedness not just off-site

Need integration of on- and off-site response. Includes:

- Actions being taken by the operators
 - Prevent a severe emergency e.g. EOPs
 - Reduce the consequences of an emergency
- Security response. (security response has interfered with the safety response)
- Off-site response
 - Local
 - National

Some big issues

On-site response should address severe very low probability events

- Plants can not operate unless severe events are low probability
- Failure to address contributed to TMI and Chernobyl

Some big issues

What is the basis for off-site preparedness?

- Based on consequence projection (threat assessment)
- What probability event should be considered?
- How is this demonstrated?
- How are advances in design and analysis reflected? For example size of the emergency ones

Some big issues

Sustainability: Who is going to pay?

- Are the provisions in place to pay for emergency response arrangements needed for both on and off site over the long-term?
- Is this part of license condition?

Some big issues

No clear designation of responsibilities

- Who is responsible for making off-site decisions promptly?
- Who coordinates the total national response (**not the regulatory body**)?
- Have all the national and local response organizations been included?
- **£,€,¥, \$ involved – who will get the money?**
- **Must decide early**



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**IEC is the IAEA focal point of EP & R
and is available to assist**