

International Nuclear Emergency Exercises (INEX 5)

Flag ship Activity of WPNEM
Test, Investigate and Improve

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WPNEM Background & Strategy

- International forum for emergency response experts from NEA countries to:
 - Improve nuclear emergency management systems, focusing on international interfaces
 - Share knowledge and experience widely
- WPNEM activities focus on identified needs in planning, preparedness and response for the “early” and “intermediate” phases of a nuclear/radiological emergency with a view towards preparation of recovery actions.
- Key pillar: Develop, organise, analyse the International Nuclear Emergency Exercise (**INEX**) series
 - Collectively test, explore and improve national, international emergency management arrangements and interfaces
 - Bring together stakeholders to identify and resolve issues
- Membership: 60 delegates from 27 NEA countries, observers (IAEA, EC, WHO, FAO & IFRC)

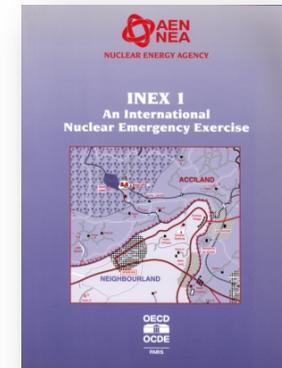
INEX Exercises

INEX 1 (1993)

Early phase table-top exercise at a fictitious country and NPP; Countries played as fictitious accident state or neighbouring state

Goal: improve trans-boundary communications and coordination

Key findings: improving coordination of communication, short-term countermeasures; need for a more realistic exercise

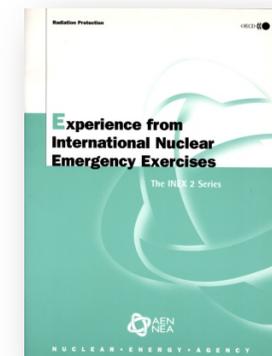


INEX 2 (1996-1999)

Four early phase command-post exercises built on national exercises at real NPPs with simultaneous play of Accident “Host” Country; Near/Far-field Countries; International organisations

Goal: test real response arrangements; public/media aspects

Key findings: co-ordination of countermeasures, timeliness and completeness for decision making, provision of public information

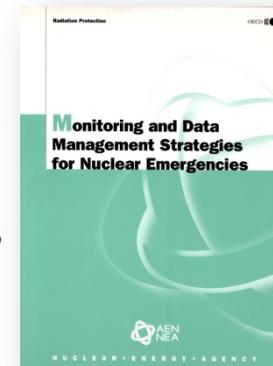


INEX Exercises

INEX 2000 (1999-2001)

INEX 2-type exercise to test new data strategies; international coordination; aspects of Conventions on Third Party Liability. Included objectives from EC, IAEA, NEA, WHO and WMO

Key findings: INEX 2 exercises were valuable for proving state of readiness but many lessons remain to be implemented; investigate later phase issues.



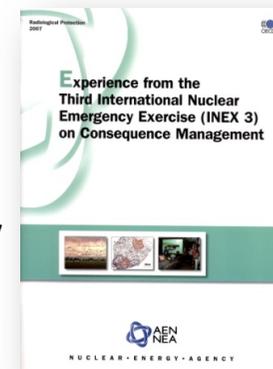
INEX 3 (2005-2006)

Response to international interest in longer-term issues

- Table-top consequence management exercise focusing on decision-making in the medium-longer term after an event causing serious contamination
- Flexible and scalable to meet national needs
- Each country played as an “accident” state

Key findings:

- Better guidance for a broad range of countermeasures, recovery needed
- Cross-cutting issues such as long-term social, economic and technical aspects in decision-framing



INEX Exercises

INEX 4 (2010-2013)

Consequence Management and transition to recovery

Concept:

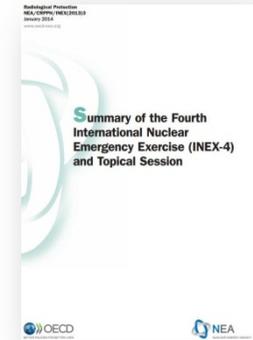
- a series of issues-driven national table top exercises addressing issues in consequence management and the transition to recovery arising from a radiological dispersion device in an urban area
- Identify good practice and facilitate improvement of national and international arrangements;

Timeframe: Sep 2010- Nov 2011 (exact date to conduct an exercise was the choice of each participating country, extended due to Fukushima impact)

Themes: Decision-making, Optimisation, Public health, Safety & Security, Communication, Radiological management, recovery & termination.

Key findings:

- Participation at all levels (high level decision makers) with opportunity to experience and response to real situations
- Plans to updated in response to gaps identified
- Participation attitude- Several suggestions for improving scenario / I4 scenario/ material can be easily re-used



INEX 5

- Exercise on Emergency Management Aspects of Notification, Communication and Interfaces (NC&Is) Related to Catastrophic Events involving Radiation or Radiological Materials (for NPP and non-NPP countries)
- Initiated in 2013 for planning and approved in October 2014 by the WPNEM and announced in November 2014

Concept

- Conduct of a **table-top exercise** addressing EM aspects of NC&Is between and among each countries and IOs
- NPP countries to exercise individually, with other NPP and/or non-NPP countries
- Non-NPP countries to exercise individually, with other non-NPP countries and/or NPP countries
- Provide for regional exercise play

INEX 5

Goal

- Identification and implementation of corrective actions

Objectives

- Test and investigate the adequacy of national arrangements, where app. international arrangements
- Review and share information on approaches to NC&Is to identify good practice
- Identify key areas and approaches to international coordination and communication in order to provide a basis for improvements in international EMS
- Country objectives to be added

INEX 5

Overview

INEX 5 was developed to enable NPP & non-NPP countries to exercise;

- Individually, Together, Regionally, Internationally

Format

Individually;

- exercise the EPR systems (NPP or non-NPP country)
- Test internal procedures for notification, communication and interfaces between and among country and international organizations
- Identify system improvements
- prepare for regional TTX

Together;

- Can be NPP countries only; NPP and non-NPP country; or non-NPP countries only.
- Non-NPP countries do not need an NPP country to exercise.
- Scenario enables non-NPP countries to use role players (within country or other non- NPP country) to simulate NPP release.
- Exercise cross border EPR systems (NPP or non-NPP country).
- Test cross border procedures for NC&Is
- Identify system improvements

INEX 5

Format

Regionally;

- Exercise regional EPR systems (NPP and/or non-NPP country).
- Test regional procedures for NC&Is between and among country and international organizations
- Identify regional system improvements/enhancements.

Internationally;

- Exercise national, regional and international EPR systems (NPP and/or non-NPP country).
- Test national, regional and international procedures for NC&Is between and among country and international organizations
- Identify national, regional and international system improvements/enhancements

INEX 5

Special topical areas

- Decision-making on notification and communication strategies, including issues in
 - optimisation (technical, economic and social factors)
 - international communication and coordination
- Public information and communication
- National and international support (personnel, equipment, etc.)

Important: These topical areas will be evaluated from both a national and international perspective and form the core of the common INEX-5 Evaluation Questionnaire

Scope

- Series of individual national exercises conducted by participating countries
- A single common set of questions;
 - To allow all participants to directly compare their approaches for managing the response to such events
 - To facilitate overall evaluation and experience exchange

INEX 5

NOT

a real-time exercise, free play exercise
intended nor designed to test any international conventions

May be accompanied with a full field exercise -national issues driven exercise -
(before or after the table top)

Exercise essentials

- Use of Generic Technical Materials
- Organisation and conduct of a TTX
- Possible extension for a full field exercise

To do list for the Participating Country

- To adopt the common objectives and scenario questions
- To conduct exercise within a common agreed window of 9 months
- Complete a common evaluation questionnaire (*to perform its own assessment of their exercise with the intent to share, as appropriate, its experience internationally*)
- To send the completed questionnaire to the NEA Sec
- To participate the international evaluation workshop / topical session

INEX 5 - Participation

- **Important note:** Open to all countries, including NEA member and non-member countries, and relevant international organizations
- Emergency planners, responders and technical decision-makers from national authorities
- Countries are encouraged to involve neighboring and other countries and international agencies that could be involved or provide resources in case of a catastrophic event involving radiation or radiological materials
- But
 - Participation of relevant stakeholders (*governmental and non-governmental*) in the national exercises is both encouraged and supported by the INEX 5 scenario
 - The extent of participation within a country will be the choice and responsibility of each country

INEX 5 - Participation

- In case of a regional INEX 5 exercise (*which is expected*)
 - Recommendation: All participants first conduct localized table top exercises to support the common exercise evaluation
- This exercise excludes the intermediate and late phases, except for appropriate notification and communication activities within the scenario questions
- Technical materials support intermediate and late phase play

INEX 5 - Documentation

- Responsibility of participating country
 - Detailed planning, conduct and evaluation of its own exercise
 - national exercise materials should base on INEX 5 docs
- A set of generic technical materials has been prepared to support INEX 5 national exercise planning committees, including generic guidance, key objectives and topic areas, exercise scenario and master scenario events list, and exercise evaluation tools
- <http://www.oecd-nea.org/rp/inex/inex5.html>
- However,
 - national requirements for a notification, communication and interfaces related to catastrophic events exercise may differ between countries (*modification is necessary*)

INEX 5 - Scenario

1

Based on a NPP event, exacerbated by a natural disaster

- Radiological release of significant levels to affect trans-boundary locations

2

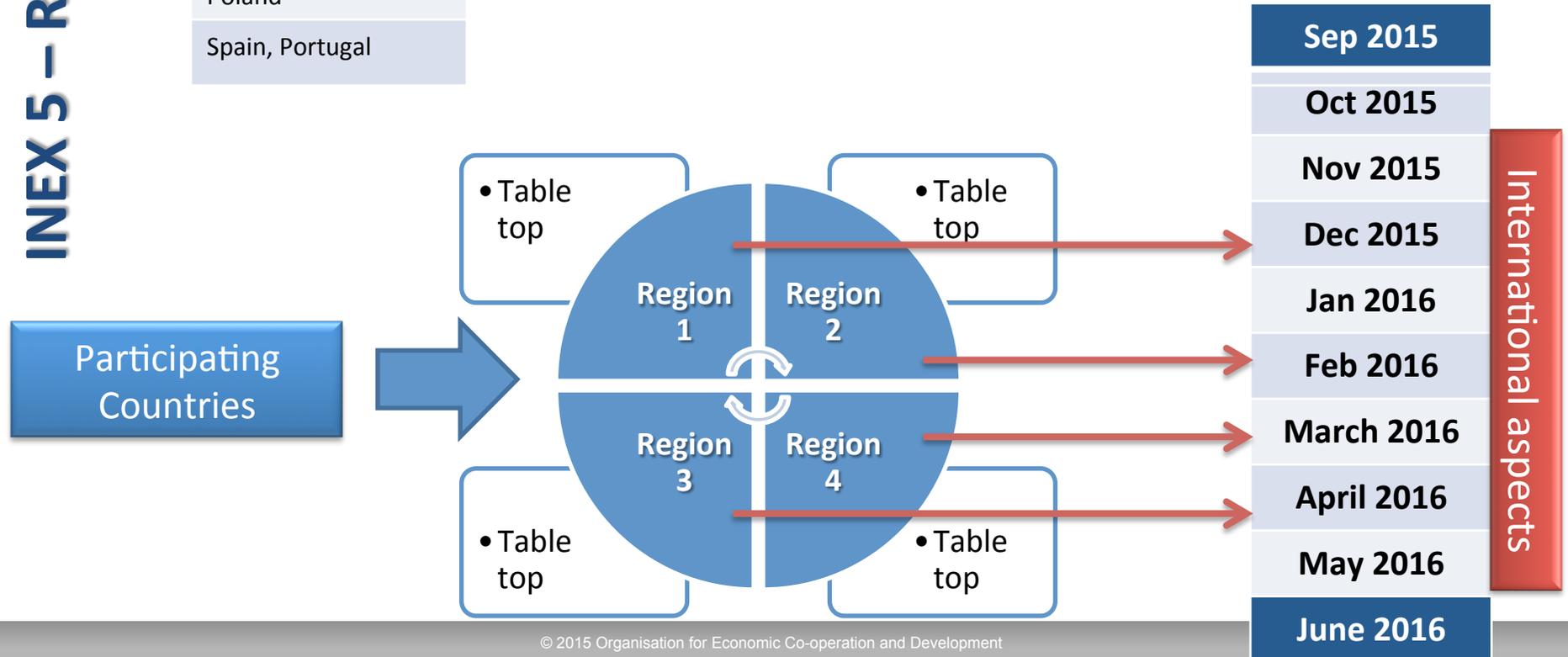
For countries without NPPs, to consider participating with neighboring countries with NPPs for receiving and requesting information

- Requiring national decision makers
 - to make decisions and provide information based on little to no technical data
 - to establish and maintain communications with the international community

Alternatives to participate

INEX 5 – Regional Play

| Region 1 | Region 2 | Region 3 | Region 4 | Only National |
|---|----------------|------------------------------|-------------|-------------------------|
| Austria, Hungary, Slovak Rep., Slovenia | Greece, Turkey | Sweden, Norway, Russian Fed. | Ireland, UK | Japan Chinese Taipei |
| Germany, France, Italy, the Netherlands, Poland | | | | |
| Spain, Portugal | | | | |



INEX 5 - Timeline

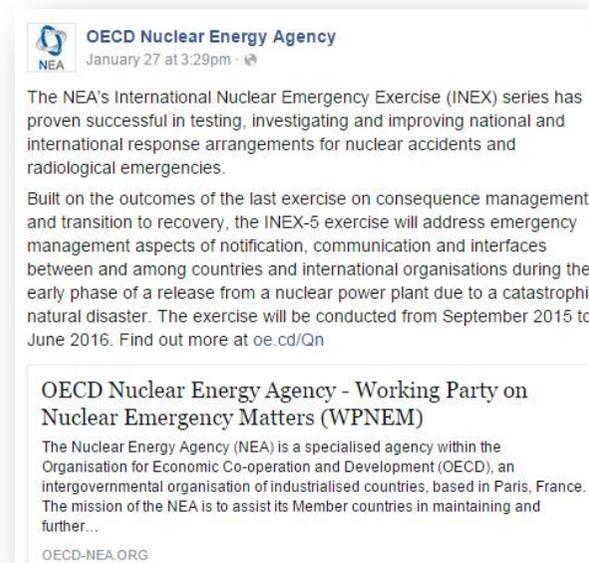
| Time | Action | |
|-----------------------------------|--|---|
| 14-15 October 2014 | Approval of the INEX 5 Technical Materials | ✓ |
| 13 November 2014 | Official invitation and distribution of the INEX 5 General Information | ✓ |
| 31 March 2015 | Deadline to notify the NEA of intention to participate | ✓ |
| 16 - 17 June 2015 | INEX 5 National Exercise Coordinators meeting (OECD NEA, Paris) | |
| September 2015 – June 2016 | Official time window for INEX 5 conduct | |
| End of October 2016 | Completed INEX 5 Evaluation Questionnaire To be sent to the NEA | |
| Spring 2017 | INEX 5 Evaluation workshop/ topical session | |
| End of 2017 | Publication of INEX 5 Evaluation/Summary report | |

NEA Countries, IOs, IACRNE meeting

- NEA INEX-5 web-page: <http://www.oecd-nea.org/rp/inex/inex5.html>
- Announcements;
 - @ USIE web – site (Dec 2014)
 - @ IAEA IEC & WHO REMPAN newsletters (Jan 2015)

INEX 5 - Social media

NEA's Facebook, Twitter & LinkedIn



INEX 5 - NEOs Coordination Meeting

- 16-17 June 2015 at the NEA Headquarters
- Objectives:
 - to introduce the exercise status with support documents,
 - to present national arrangements & national objectives to be added to the exercise concept (if any)
 - to discuss and organise regional play arrangements.
- NEA Secretariat is in close collaboration with the IAEA to facilitated the use of USIE Exercise module



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More information @ <http://www.oecd-nea.org/rp/wpnem/> (reports & previous exercises)
<http://www.oecd-nea.org/rp/inex/inex5.html>