



IAEA

International Atomic Energy Agency

Seismic Safety of Nuclear Power Plants

IAEA International Workshop on Lessons Learned from Strong Earthquakes

19 – 21 June 2008

Kashiwazaki, Japan

Organized by International Atomic Energy Agency

Hosted by: Nuclear and Industrial Safety Agency (NISA), Japan

Nuclear Safety Commission, (NSC), Japan

Japan Nuclear Energy Safety Organization, (JNES), Japan

**In cooperation with the Organization for Economic Cooperation and
Development / Nuclear Energy Agency (OECD/NEA)**

INFORMATION SHEET

1. BACKGROUND

Seismic safety of nuclear installations is a subject that has received substantial attention at the IAEA within the framework of its statutory functions for establishing nuclear Safety Standards and providing for their applications. IAEA Safety Standards have been developed since the 1970s and significantly improved in late 1990s. Today they are widely applied among the Member States. The seismic safety review services based on these Standards started in 1980s and at present more than 110 missions of interdisciplinary team of experts were implemented in many countries during the site selection and evaluation phases, and for new and existing nuclear installations.

In view of the recently recorded earthquake ground motions at nuclear power plant sites in Japan, and other strong earthquakes that occurred worldwide, IAEA is assessing the way in which this information can be shared by Member States and how Agency programmes may be affected. After major events, there are always lessons to be learned and these should be used

in such a way that benefit nuclear power plant seismic safety internationally.

Taking into account the renewed demand for nuclear energy worldwide, the ways in which new nuclear power plant designs consider seismic issues will be of interest.

2. OBJECTIVES OF THE WORKSHOP

The main objective of this Workshop is sharing information in relation to recent technical knowledge and research developments, as well as the experience and good practices relating to the occurrences and effects of this type of extreme external event on nuclear power plant sites. Thus, learning from the lessons of these recent events, will allow the review, revision and expansion, as appropriate, of the Agency Safety Standards relevant in the subject of seismic safety. Some of these actions are already underway.

As a step in that direction, the Agency is organizing an international workshop convening a meeting of specialists in the field, aiming that they will provide their information and experience from the regulatory, designer, utility and academic points of view in relation to the hazard assessment, the design, evaluation, upgrading and operational aspects. It is envisaged that the workshop will provide a forum for discussions between experts in the field of seismic safety and as a result, with the necessary generalization, they will be summarized into an Agency publication.

3. SCOPE OF THE WORKSHOP

The Workshop will cover the following scope, in relation to the phenomena and the nuclear installation type:

- Earthquake hazards including vibratory ground motion, fault displacement, and secondary
- Effects such as liquefaction, subsidence, slope failures and ground collapse.
- Response and failure of structures, systems and components (mechanical and electrical)
- On site and off site actions to the event
- Seismic interaction of SSCs and interaction of seismic issues with others such as fire, flood and ageing

4. STRUCTURE OF THE WORKSHOP

The Workshop consists of 6 sessions besides the welcome and opening addresses and the closing remarks. The 6 sessions will be organized in an open forum style, allowing the participation of a wide audience These sessions are as follows:

19 June 2008

.Session 1: An evaluation of recent seismic events in Japan

- Event at the Onagawa NPP – what happened and how it was resolved
- Event at the K – K NPP – what happened and how is it being resolved.

(Presentations from Tohoku EPCO, TEPCO, NISA, JNES, researchers, IAEA)

Session 2: Methods for the evaluation of seismic hazards and recent applications in Member States.

(Contributions from IAEA, Member States with recent experience with the conduct of seismic hazard analyses for NPPs)

20 June 2008

Session 3: Seismic design of NPPs – New Approaches

(Contributions from NPP designers – seismic design of Gen III and Gen III+)

- Visit to K – K NPP (3 hours, only a tour of the outside)

21 June 2008

Session 4: Seismic safety of existing NPPs (Evaluation, Upgrading and Post Earthquake Operator Actions)

(Contributions from IAEA experts, MS with such experience, one presentation on the IAEA EBP on the Seismic Safety of Existing NPPs)

Session 5: RT Discussion on “How to Regulate a Beyond Design Basis Event”

(Regulators from Japan and other Member States, INSAG Member)

5. PARTICIPATION

Expected participants are high level experts from regulatory authorities, utilities, engineering and consultancy organisations, and academic and R&D institutions, involved in the topics that the Workshop is targeting. Participants should be officially designated by their relevant governmental authority (Ministry of Foreign Affairs or National Atomic Energy Authority) and should send by fax or e-mail, the attached participation form before **15 May 2008** to the Scientific Secretaries of the Workshop. All participants should be registered through a designated channel as mentioned above.

6. ORGANISATION OF THE WORKSHOP

The Workshop is organized by the International Atomic Energy Agency and hosted by the Nuclear and Industrial Safety Agency (NISA) of Japan. The working language of the

Workshop will be English but simultaneous translation between English and Japanese will be provided. The organizing institution nominated the following committees and members:

Scientific Secretaries:

IAEA	NISA
Mr. Antonio Godoy e-mail: A.R.Godoy@iaea.org Mr. Aybars Gürpınar A.Guerpınar@iaea.org	Mr. Masahiro Yagi e-mail: yagi-masahiro@meti.go.jp

7. ABSTRACTS AND PAPERS

The Workshop is organized through presentations by invited lecturers.

However, Participants are invited to present technical contributions on the specific subjects of the Workshop and within the scope of the indicated sessions in the programme, which will be selected on the basis of abstracts and will be processed on receipt of them. Any individual requiring early confirmation of acceptance of their presentation is therefore encouraged to submit his/her abstract as soon as possible. The abstract should be in A4 page not exceeding 500 words and should be sent electronically to the Scientific Secretary, Mr. Antonio Godoy (E-mail:A.R.Godoy@iaea.org) not later than **15 May 2008**. Authors will be notified regarding the acceptance of the abstract by **20 May 2008**.

The Manuscript of the Paper should be typed; single spaced on an A4 format or 8.5 by 11 in. paper in Times New Roman 10 or 12 point and should include original illustrations and black and white glossy prints of all photographs. The paper should be not more than 12 pages (including Figures). The author's name(s) should be given on the first page of the paper as follows:

TITLE OF PAPER By Mr John No Name*, George Young**, Willy Spring*** * Position and Address ** Position and Address ***Position and Address
ABSTRACT Based on abstract provided previously, but to include major conclusions.
KEY WORDS Include a list of keywords at bottom of first Page

In addition to the Master (paper) copy, an electronic version of the paper is necessary to ensure quality and timely issuance of the proceedings to be prepared and distributed in

electronic form (CD-ROM). It is highly desirable to use an internationally used software programme, preferably in MS Word format.

8. DELIVERABLE

A working material document containing all presentations including conclusions and recommendations will be issued and distributed by IAEA, not later than 6 months after the Workshop.

9. PRACTICAL INFORMATION

- *Workshop location:*

Kashiwazaki Civic Plaza, Kashiwazaki, Japan.

1-3-24, Higashi-honmachi, Kashiwazaki-shi, Niigata, Japan

Tel: +81-257-20-7500, Fax: +81-257-22-2637

- *Workshop logistics and accommodation*
- *Visa*

The need of visa to enter Japan should be checked by the Participant. The IAEA Scientific Secretaries will send an invitation letter if so requested for such purposes.

10. EXPENDITURES

The organizational cost of the Workshop is borne by the host organizations. The Agency is not in a position to bear the travel and other costs for the designated participants to the Workshop. However, limited funds are available to help cover the cost of participants from Member States eligible to receive technical assistance under the Agency's Technical Co-operation Programme. Such assistance can be offered, upon specific request through official channel, to one participant per country provided that, in the Agency's view, this participant will make an important contribution to the Workshop. The application for financial support should be made at the time of nomination of the Participant.

Rev.: 28-04-2008

PARTICIPATION FORM

**Seismic Safety of Nuclear Power Plants
IAEA International Workshop on Lessons Learned from Strong Earthquakes**

**19-21 June 2008
Kashiwazaki, Japan**

***Please, complete and send before 15 May 2008 to the competent official authority
(Ministry of Foreign Affairs or National Atomic Energy Authority, Organization) for
transmission to:***

Mr. Antonio R. Godoy
International Atomic Energy Agency
Wagramer Strasse 5, P.O. Box 100
Vienna International Centre, 1400 Vienna, Austria
Tel: +43-1-2600-22513 / Fax: +43 1 26007-26399 / E-mail: A.R.Godoy@iaea.org

Participants should register as soon as possible upon the receipt of this Information Sheet.

Surname:	
Given Names:	Dr./Mr./Ms:
Title (position):	
Institution/Organization/Company:	
Full address:	
Tel:	Fax:
Telex:	E-mail:
I intend to present a paper <input type="checkbox"/> No <input type="checkbox"/> Yes, with the following title: And enclose a 500 word extended summary.	
Date:	Signature: