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Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

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**NUCLEAR ENERGY AGENCY
COMMITTEE ON THE SAFETY OF NUCLEAR INSTALLATIONS**

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**PROCEDURES FOR INITIATION, COST-SHARING AND MANAGEMENT
OF OECD PROJECTS IN NUCLEAR SAFETY**

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), Korea (12th December 1996) and the Slovak Republic (14th December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1st February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20th April 1972, when Japan became its first non-European full Member. NEA membership today consists of 27 OECD Member countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Republic of Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its Member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

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COMMITTEE ON THE SAFETY OF NUCLEAR INSTALLATIONS

The NEA Committee on the Safety of Nuclear Installations (CSNI) is an international committee made up of scientists and engineers. It was set up in 1973 to develop and co-ordinate the activities of the Nuclear Energy Agency concerning the technical aspects of the design, construction and operation of nuclear installations insofar as they affect the safety of such installations. The Committee's purpose is to foster international co-operation in nuclear safety amongst the OECD Member countries.

CSNI constitutes a forum for the exchange of technical information and for collaboration between organisations which can contribute, from their respective backgrounds in research, development, engineering or regulation, to these activities and to the definition of its programme of work. It also reviews the state of knowledge on selected topics of nuclear safety technology and safety assessment, including operating experience. It initiates and conducts programmes identified by these reviews and assessments in order to overcome discrepancies, develop improvements and reach international consensus in different projects and International Standard Problems, and assists in the feedback of the results to participating organisations. Full use is also made of traditional methods of co-operation, such as information exchanges, establishment of working groups and organisation of conferences and specialist meetings.

The greater part of CSNI's current programme of work is concerned with safety technology of water reactors. The principal areas covered are operating experience and the human factor, reactor coolant system behaviour, various aspects of reactor component integrity, the phenomenology of radioactive releases in reactor accidents and their confinement, containment performance, risk assessment and severe accidents. The Committee also studies the safety of the fuel cycle, conducts periodic surveys of reactor safety research programmes and operates an international mechanism for exchanging reports on nuclear power plant incidents.

In implementing its programme, CSNI establishes co-operative mechanisms with NEA's Committee on Nuclear Regulatory Activities (CNRA), responsible for the activities of the Agency concerning the regulation, licensing and inspection of nuclear installations with regard to safety. It also co-operates with NEA's Committee on Radiation Protection and Public Health and NEA's Radioactive Waste Management Committee on matters of common interest.

Procedures for Initiation, Cost-sharing and Management of
OECD Projects in Nuclear Safety

Procedures for Initiation, Cost-sharing and Management of OECD Projects in Nuclear Safety

Introduction

- The objective of this procedure is to provide a common basis for the establishment and management of the OECD projects in the area of nuclear safety. It is a follow-up of a recommendation expressed by the CSNI Bureau during its meeting in October 2001, where the procedures for the establishment and management of the OECD (CSNI) projects in nuclear safety were addressed. While this procedure attempts at defining general guidelines for project initiation, financing and management, one should bear in mind that each project has its own motivation, background and framework. Thus, some degree of flexibility in project's structure, finances and management should be considered in order to accommodate requirements and boundary conditions that might differ from case to case. Flexibility might include consideration of in-kind contributions when applicable for project furtherance. This proposal is primarily concerned with projects that are organised by the NEA secretariat upon CSNI recommendations and initiative.
- The OECD (CSNI) projects aim to produce results relevant for the safe operation of nuclear power plants through international collaborative projects. In general, the projects consist of advanced experimental programmes that are conducted at specialised facilities. At present, the following OECD (CSNI) projects are in operation:
 - The Halden Project, covering fuel/materials and I&C/Human Factors issues
 - The Cabri Project, addressing reactivity transients on high burnup fuels
 - The MASCA Project, which deals with in-vessel corium phenomena
 - The OLHF Project, dealing with lower head failure mechanisms
 - The SETH Project addressing thermal-hydraulics issues, started in 2001
 - The MCCI Project on ex-vessel coolability and melt-concrete interaction

There are significant differences among these projects in terms of their motivation, size and scope. The Halden Project and the Cabri Water Loop Project are large undertakings where the host organisations assume full and direct responsibility for the project establishment and administration - as well as for the negotiation with relevant parties on the terms of participation. In the other cases, instead, the NEA secretariat has a more direct responsibility, conferred by the CSNI, in establishing the project technical and financial basis, as well as for its implementation and administration.

One should also notice that the NEA Nuclear Safety Division has for some time operated a database on common cause events denominated ICDE. Two additional databases, one on fire events (FIRE database) and one on piping failure (OPDE database) have started in 2002. They are smaller projects, which do not have a host country. These procedures apply also to these projects, with the exception that, for the latter ones, costs are equally shared among participants.

Project Initiation

- The process to establish a new OECD (CSNI) project can start upon recommendations of the CSNI or by proposal of one or more Member countries. Where appropriate, a new project proposal should be reviewed by the relevant working group (WG), special experts groups (SEG), programme review group (PRG) and the Bureau prior to seeking CSNI approval. The extension of an existing project over a new time period is determined by the initiative and consensus of the project's participants.
- After preparatory meetings aimed to achieve a consensus among the intended participants on the technical programme, an international Agreement is prepared by the OECD-NEA containing the management and legal provisions for the sound operation of the project. The Agreement also contains the time schedule and the technical and financial frame of the intended project. Agreements on new projects are firstly circulated in draft form for comments and confirmation of interest in the Member countries. Subsequently, the final document is circulated to participants for signature.

Project Signatories

- The Signatory organisations are those entitled to sign the project's Agreement and to be represented in the project's steering bodies. They have also the responsibility of allocating the agreed share of funds (and in-kind contributions when applicable) for the execution of the project.
- A Signatory may share the technical and financial participation with other organisations operating in its country. For some projects, it is now common practice that a country participation is supported by various parties, either separately or constituted under the leadership of the Signatory organisation.
- It is common practice that a country is represented by a single Signatory for the purpose of the execution of the Agreement. Notwithstanding this, reasons of pragmatism may lead to have more than one Signatory from one country in some cases. Project's rules shall provide for how such cases are dealt with as related to the operation of the project and of its steering bodies.
- Organisations for which specific rules must apply or institutions representing a non-OECD country may enter an OECD (CSNI) project as a non-signatory Associated Party. Regardless as to whether the project Agreement contains provisions for this or not, the participation of an Associated Party in the project shall be approved by the project's Management Board or Steering Committee.

- In OECD (CSNI) projects, a direct relation exists between a participating country and a related Signatory, especially for what concerns the Signatory's right to represent other parties or to communicate results to other organisations within its national territory. In this context, the increasing trend towards internationalisation requires attention, particularly in consideration that a project participant might have obligations on communication of information to associates or companies abroad. A situation of this type must be dealt with pragmatically and on a case-by-case basis. In general one should consider that
 - A project participant may be allowed to communicate results to an organisation in another participating country, provided that no objections arise from the Signatory of that country.
 - Communication of results to organisations in countries not participating in the project must be authorised by the Management Board (or Steering Committee).

Cost-sharing

- The project participants contribute to the cost for the execution of the programme to an agreed share set forth in the Agreement. The cost to participants can be in the form of cash contributions and - where agreed upon - as in-kind contributions, provided that the latter ones decrease the overall cost of the project and bring significant technical value into the programme. Subject to the approval of the project Management Board, a small fee is charged to cover secretariat expenses, contributing also to a small fund necessary to establish future projects.
- The host country normally covers a relatively large fraction of the overall cost. While in principle a proposal may entail those financial conditions that the host organisation deems most appropriate, these should be firstly agreed upon in consultation with the NEA
- For new projects where the secretariat is requested by the CSNI to promote and establish the project, the financial basis will be proposed by the host country in consultation with the NEA secretariat. However, the following general guidelines are recommended:
 - A host country contribution of 50%
 - A non-host country cost sharing based on GNP, but with a minimum of the order of 1% and a maximum of approximately 10% of the total project.

Other factors may also be considered.

Project Management

- Control of the project shall be vested in a Management Board constituted according to the provisions set forth in the Agreement. The Management Board (sometimes called Steering

Committee) shall in particular

- Approve each year the annual programme of work and budget
 - Approve each year the financial report covering the previous year
 - Make such rules of procedures, consistent with the objectives and provisions of the Agreement, as they may be required for the sound management of the project
 - Consider any matter brought before it by the technical advisory group, by the Operating Agent or by any Signatory.
- A technical advisory group is normally constituted to provide the technical guidance and assessment of the project as it develops, acting as technical advisor to the Management Board. This group shall in particular
 - Provide technical recommendations to the Operating Agent concerning the carrying out of the programme
 - Review the technical progress and reports of the project, assess the results and provide guidance for future work
 - Advise the Management Board concerning the annual programme of work
 - The Management Board meets at least once a year, while the advisory group meets as it deems necessary (typically twice a year). The respective chairpersons shall be elected each year among the members of the respective bodies. They can be re-elected. It is common practice, however, that the host country does not hold the chair of both steering bodies and it is advisable, although not a rule, that the chairperson changes after a period of time of maximum three years.
 - Experience shows that the Management Board and the advisory group can operate by consensus in a rather efficient manner. The role of the chairperson is very important for seeking and establishing such consensus. Notwithstanding this, the Agreement shall provide for voting rules. As a general guideline one should consider the following:
 - The host country signatory shall have three votes
 - Each other signatory contributing more than 5% of the total cost shall have right to two votes
 - All other signatories shall have right to one vote
 - With the exception of larger projects, the advisory group and the Management Board may be merged into one steering body. This is done, for instance, in the database projects.
 - In some instances it may be advantageous to allow non-voting “associate members” to join the project. Associate members would be charged a fee to join the project and will have access to the project results as determined by the Management Board. Funds provided by associate members would be used to expand the scope of the project as agreed by the Management Board.