

# General Conference

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## **Fifty-first regular session**

Item 18 of the agenda

(GC(51)/22)

COMMITTEE OF THE WHOLE

## Strengthening the Agency's activities related to nuclear science, technology and applications

### Small and medium-sized nuclear reactors - Development and deployment

**Draft resolution submitted by Canada, France, India Japan, the Republic of Korea, the Russian Federation and the United States of America**

#### The General Conference,

- (a) Recalling its resolutions GC(43)/RES/15, GC(44)/RES/22, GC(45)/RES/12.A, GC(47)/RES/10.E and GC(49)/RES/12.E,
- (b) Recalling that the Agency has initiated a programme to assist developing countries interested in small and medium-sized reactors (SMRs) to address economic, safety, reliability, proliferation resistance and waste management,
- (c) Noting that smaller reactors could reduce the required initial investments and associated infrastructure costs and that they could be better suited to the small electrical grids of many developing countries,
- (d) Recognizing that the issue of the infrastructure requirements of SMRs in Member States without nuclear power plants is important, and that the size of nuclear reactors is a national decision that each Member State takes based on its own needs and the size of electrical grids,
- (e) Further noting that some of the designs in the category of “reactors without on-site refuelling” have the potential to operate without reloading and shuffling fuel for extended periods of time,
- (f) Appreciating the particular relevance of INPRO to the development of SMRs, including the development of common user criteria,

- (g) Commending the publication by the Agency of an annex to the 2007 Nuclear Technology Review on innovative SMRs detailing different SMR designs and examining the technology and infrastructure development needs common to the various concepts of such reactors,
  - (h) Further noting that SMRs could have a significant role to play in desalination and hydrogen generation systems in the future,
  - (i) Noting with appreciation the activities carried out in co-ordination with other organizations,
  - (j) Noting the recent publications on the status of innovative SMR designs: “Reactors with Conventional Refuelling Schemes,” “Advanced Nuclear Power Plant Design Options to Cope with External Events” and “Small Reactor Designs Without In-site Refuelling”, and
  - (k) Noting with satisfaction that a common outline for the description of passive safety design options (PSDOs) has been defined and structured descriptions of such options for ten representative SMR concepts have been prepared,
1. Requests the Director General to continue taking appropriate measures, within the available resources, to assist Member States, particularly developing countries, engaged in the process of preparatory actions with regard to demonstration projects, and encouraging the development of safe, secure, economic and proliferation-resistant SMRs, including with respect to nuclear desalination and hydrogen production;
  2. Also requests the Director General to note the high priority given by interested Member States to SMR development and to promote effective international information exchange and co-operation in this area;
  3. Requests the Director General and interested Member States to include in the feasibility studies, besides the technical aspects, the social and economic impacts of SMR technology;
  4. Also requests the Director General to continue consultations and interactions with interested Member States, the competent organizations of the United Nations system, multilateral financial institutions, regional development bodies and other relevant intergovernmental and non-governmental organizations in activities relating to the development and deployment of SMRs;
  5. Invites the Director General to raise seed funds and other appropriate funding from extrabudgetary resources in order to catalyze and contribute to the augmentation and implementation of all Agency activities relating to the development of and facilitating the deployment of innovative SMRs;
  6. Further requests the Director General to continue to report on:
    - (i) the status of the programme initiated to assist developing countries interested in SMRs,
    - (ii) the progress made in the research, development, demonstration and deployment of SMRs in Member States intending to introduce SMRs in the future, and
    - (iii) the progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its fifty-third (2009) regular session under an appropriate agenda item.