

Preparatory Committee for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Nuclear safety

Working paper submitted by Australia, Austria, Canada, Denmark, Finland, Hungary, Ireland, the Netherlands, New Zealand, Norway and Sweden (the Vienna Group of Ten)

Key points

- The Vienna Group of Ten recognizes the importance of nuclear safety and security in all peaceful nuclear activities and emphasizes that it is important for States and international organizations to continue their efforts to enhance safety and security measures for all fuel cycle activities.
- The Group reaffirms the importance of continuing international efforts to improve the global nuclear safety regime, including the robust implementation of the International Atomic Energy Agency Action Plan on Nuclear Safety, and notes the central role of IAEA in sharing and applying the lessons learned from the accident at the Fukushima Daiichi nuclear power station.
- The Group recognizes the right of any State to decide upon its own energy policy, but emphasizes the need for States embarking on nuclear energy programmes to develop national technical, human and regulatory infrastructure adequate to ensure the safety and security of all fuel cycle activities in line with international standards, guidelines and recommendations at a very early stage of the process.
- The Group emphasizes that it is important for all States, in particular those with nuclear fuel cycle activities, to become parties to all conventions and agreements relevant to nuclear safety and security and to support the further development, as necessary, of legally binding instruments to ensure a better global nuclear safety and security framework.

Working paper on the implementation of the action plan

1. The Vienna Group of Ten notes that safety in all activities throughout the nuclear fuel cycle is a prerequisite for the peaceful uses of nuclear energy and that



continuous efforts are needed to prevent complacency and ensure that all elements of safety culture are maintained at the optimal level. Although primary responsibility for the safety of nuclear installations rests with individual States, international cooperation is vital for exchanging knowledge and learning from best practices.

2. The Vienna Group welcomes the international community's strengthened and continuing focus on nuclear safety following the 11 March 2011 earthquake and tsunami in Japan and the subsequent accident at the Fukushima Daiichi nuclear power station.

3. The Vienna Group notes the importance of the declaration adopted by the IAEA Ministerial Conference on Nuclear Safety in June 2011, the High-level Meeting on Nuclear Safety and Security convened by the Secretary-General in September 2011 and the subsequent Action Plan on Nuclear Safety endorsed by the IAEA General Conference at its fifty-fifth regular session, held from 19 to 23 September 2011.

4. The Vienna Group welcomes the outcomes of the Fukushima Ministerial Conference on Nuclear Safety, hosted by the Government of Japan, in co-sponsorship with IAEA, in Fukushima Prefecture, in December 2012, whose principal objective was to contribute to strengthening nuclear safety worldwide. The Group takes note of the statement by the Co-Presidents of the Ministerial Conference and welcomes that the Conference provided a further opportunity to take stock of and share the lessons learned from the accident at the Fukushima Daiichi nuclear power station and to discuss the progress of international efforts to strengthen nuclear safety, including through the implementation of the IAEA Action Plan and further enhancements in transparency.

5. The Vienna Group welcomes the continued implementation of the Action Plan and considers that the strength of the Plan will be in its robust implementation and continuous revision, including prioritization, as new lessons are learned and weaknesses identified. The Group notes the central role of IAEA in the implementation of the Plan and welcomes the ongoing initiatives under it, including international expert meetings, safety assessments and peer review service missions. The Group calls upon all States to continue to take active steps to fulfil the actions contained in the Plan as a matter of priority and to help to identify where it can be further strengthened. The Group also encourages States to take additional actions wherever possible and to continue to work towards further improving the global nuclear safety regime.

6. The Vienna Group stresses the important role of IAEA in enhancing nuclear, radiation, transport and waste safety through its various safety programmes and initiatives and in promoting international cooperation in this regard. The Group reaffirms that it is important for States to develop and improve their national nuclear, radiation, transport and waste safety infrastructure.

7. The Vienna Group highlights the crucial importance of an adequate national technical, human and regulatory infrastructure in nuclear, radiation, transport and radioactive waste safety management. It is vital that competent regulatory bodies operate with effective independence and the human and financial resources necessary to fulfil their responsibilities. The Group acknowledges the challenges faced in connection with the availability of well-trained staff and underlines the

fundamental importance of sustainable programmes for education and training. The Group recognizes the important role of international cooperation and assistance and technical cooperation in developing national infrastructure.

8. The Vienna Group endorses the work of the IAEA Commission on Safety Standards and the IAEA safety standards committees in the preparation of internationally recognized safety fundamentals, requirements and guides. The IAEA Fundamental Safety Principles continue to provide a unified conceptual basis for the ongoing development of safety standards. The Group welcomes the publication in 2011 of the third part of the interim edition of international basic safety standards on radiation protection and safety of radiation sources¹ and looks forward to the publication of the final edition. The Group welcomes the progress made by the Commission and the IAEA secretariat in reviewing and revising relevant IAEA safety standards in the light of the accident at the Fukushima Daiichi power station (as provided for in the Action Plan on Nuclear Safety). It also welcomes the establishment of an interface group that will provide for coordination between the development of publications in the IAEA Safety Standards Series and the IAEA Nuclear Security Series.

9. The Vienna Group welcomes the convening of the second extraordinary meeting of the contracting parties to the Convention on Nuclear Safety, in August 2012, which offered the contracting parties a first opportunity to share the lessons learned from independent safety reviews and to initiate measures to improve and reinforce the effectiveness of the Convention, where necessary. The Group appreciates the establishment of an effectiveness and transparency working group. The Group notes the importance of the Convention and urges all States operating, constructing or planning nuclear power reactors, or considering a nuclear power programme, which have not yet taken the steps necessary to become parties to the Convention, to do so. The Group also encourages the voluntary application of the relevant provisions of the Convention to other nuclear installations dedicated to the peaceful uses of nuclear energy.

10. The Vienna Group endorses the activities of IAEA directed towards strengthening nuclear safety, including in operating power and research reactors. Specific activities include international peer review services, such as the Integrated Nuclear Infrastructure Review Missions, the Integrated Regulatory Review Service, the International Physical Protection Advisory Service, the Safety Culture Assessment Review Team, the Engineering Safety Review Services, the Operational Safety Review Team and the International Probabilistic Safety Assessment Review Team, the provision of support to the regulatory bodies and other relevant areas of the infrastructure of States through technical assistance programmes. The Group urges all States with nuclear facilities to host IAEA review missions on a regular basis, as provided for in the Action Plan on Nuclear Safety. The Group would welcome further steps to increase States' commitment to such missions, for example by agreeing on a mandatory periodicity of peer reviews.

11. The Vienna Group welcomes the initiatives in the IAEA Action Plan to improve the effectiveness of the international legal framework. The Group notes that a working group of the leadership of both the Convention on Nuclear Safety and the

¹ International Atomic Energy Agency, *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards* (STI/PUB/1531).

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management was formed to look at creating a mechanism to ensure coherence and benchmarking between the rules governing the review process of the two conventions. The working group will submit its final report in April 2013 for eventual consideration by the contracting parties to the two conventions. The Vienna Group strongly supports this effort to enhance the review process, which leads to broader collaboration and greater efficiency in addressing global nuclear safety by the contracting parties.

12. The Vienna Group notes the importance of the IAEA Code of Conduct on the Safety of Research Reactors and endorses the guidance for the safe management of research reactors set out therein. The Group urges States to apply the guidance in the Code and the relevant safety standards to the management of research reactors. The Group recognizes that there are various challenges to the safety of many research reactors, including the ageing of facilities and the availability of well-trained staff.

13. The Vienna Group notes the importance of the implementation by the IAEA secretariat of the Plan of Activities on the Radiation Protection of the Environment. The Group encourages further cooperation between IAEA and relevant international organizations and stakeholders in promoting a coherent international policy regarding the radiological protection of the environment.

14. The Vienna Group welcomes the role of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) in assessing and reporting levels and effects of exposure to ionizing radiation. The Group acknowledges the full assessment being prepared by UNSCEAR on the consequences to humans and the environment as a result of the nuclear accident at the Fukushima Daiichi nuclear power station. The Group notes that many States parties rely on estimates from UNSCEAR as the scientific basis for evaluating radiation risk and for establishing protective measures.

15. The Vienna Group notes the importance of the Code of Conduct on the Safety and Security of Radioactive Sources and supports the comprehensive action plan for its implementation subsequently adopted by the Board. The Group also notes the importance of the Guidance on the Import and Export of Radioactive Sources and recalls that the IAEA General Conference has encouraged States to act in accordance with the Guidance on a harmonized basis. The Group calls upon all States parties to make political commitments to the Code and the Guidance and subsequently implement them. The Group looks forward to the International Conference on the Safety and Security of Radioactive Sources: Maintaining the Continuous Global Control of Sources throughout their Life Cycle, to be held in Abu Dhabi from 27 to 31 October 2013.

16. The Vienna Group urges all States parties to become parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management and to actively step up their efforts to develop and implement disposal and long-term storage solutions for spent fuel and radioactive waste. The Group welcomes the outcomes of the Fourth Review Meeting of the Contracting Parties to the Joint Convention, held in Vienna in May 2012, which underlined the importance of international coordination. The Group commends IAEA efforts in waste management and endorses IAEA programmes to assist member States in this area through, among others, the development of safety

standards for the handling of radioactive waste, peer reviews and technical assistance activities.

17. The Vienna Group notes the importance of remediating the various nuclear legacy challenges, welcomes the establishment of an international working forum for the regulatory supervision of legacy contaminated sites and encourages IAEA to continue facilitating ongoing international efforts in this regard.

18. The Vienna Group recognizes that nuclear and radiological incidents and emergencies, and acts with malicious intent associated with nuclear and radiological terrorism, may lead to significant radiological consequences over wide geographical areas, generate a pressing need for authoritative information to address public and media concerns, and require an international response. The Group urges all States that have not yet done so to take the steps necessary to become parties to the Convention on Early Notification of a Nuclear Accident and to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. The Group appreciates the outcomes of the Sixth Meeting of Representatives of Competent Authorities identified under those conventions, held in Vienna in April 2012. The Group also recognizes the need to strengthen the implementation of the conventions and to work to amend their review mechanisms, where appropriate.

19. The Vienna Group welcomes the recommendations and conclusions of the IAEA International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies and looks forward to continued efforts by the IAEA secretariat and member States in the implementation of the strategy outlined in the final report of the Plan. The Group encourages all States to review their emergency preparedness and response capabilities in the light of the nuclear accident in Fukushima and to support efforts to strengthen national, regional and international capacity in this important area. The Group welcomes the work of the IAEA Incident and Emergency Centre, which serves as the Agency's focal point for responding to nuclear or radiological incidents and emergencies and for promoting improvement in emergency response and preparedness.

20. The Vienna Group stresses the importance of international cooperation to enhance the safety of international navigation, while respecting maritime and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments. The Group affirms that it is in the interests of all States that the maritime and other transportation of radioactive materials be conducted in compliance with international standards of safety, security and environmental protection, and that States have under international law the obligation to protect and preserve the maritime environment.

21. The Vienna Group welcomes the International Conference on the Safe and Secure Transport of Radioactive Material, which was hosted by IAEA in Vienna in October 2011. The Group endorses the conclusions of the Conference, including in relation to the importance of transparency and timely information exchange between Governments in the event of an accident during the transport of nuclear material and the recommended development of best practice guidelines for systematic communications to build on the current practice of voluntary exchange of information. The Group welcomes the open-ended working group process under way to develop best practice guidelines on communication.

22. The Vienna Group notes concerns about a potential accident or incident during the transport of radioactive materials. The Group welcomes the practice of some shipping States and operators of providing, in a timely manner, information and responses to relevant coastal States in advance of shipments of radioactive materials for the purpose of addressing concerns regarding safety and security, including emergency preparedness. The Group welcomes discussions on communication between shipping States and coastal States with IAEA involvement, notes the intention to hold further such discussions, and looks forward to progress towards understanding and addressing the concerns of coastal and shipping States. The Group welcomes the current edition of the IAEA transport regulations, and urges all States to ensure that national regulatory documents are in conformity therewith. The Group also notes the importance of coordination with other actors in this field, such as the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, the International Maritime Organization and the International Civil Aviation Organization.

23. The Vienna Group welcomes the fact that the IAEA is addressing the issue of denials of shipments of radioactive materials, in addition to the work of the International Steering Committee on Denial of Shipments of Radioactive Material to coordinate international efforts aimed at resolving issues related to the denial of shipments. The Group encourages further cooperation with other bodies associated with the transport of dangerous goods, including the International Civil Aviation Organization and the International Maritime Organization.

24. The Vienna Group, noting the various conventions on civil liability for nuclear damage, stresses the importance of having effective liability mechanisms in place to ensure prompt compensation for damage to people, property and the environment, in addition to actual economic loss, due to an accident or incident during the transport of radioactive materials. The Group welcomes the valuable work of the IAEA International Expert Group on Nuclear Liability, as called for in the Action Plan on Nuclear Safety and the examination of the application and scope of the Agency's nuclear liability regime and the consideration and identification of further specific actions to address any gaps in the scope and coverage of the regime. The Group looks forward to further work by the International Expert Group to address outstanding issues as provided for in the Action Plan on Nuclear Safety and in the recommendations of the 2011 IAEA International Conference on the Safe and Secure Transport of Radioactive Materials.
