

preparing for geneva

Preparations are well under way in many countries for the Fourth International Conference on the Peaceful Uses of Atomic Energy. By decision of the United Nations, this is to be held in Geneva from 6 to 16 September 1971 and the Agency has been given the responsibility for its scientific aspects. The provisional agenda gives an idea of the subjects on which reports will provide the world with the latest information.

In a number of countries national committees have been formed to prepare for participation in the meetings and in an exhibition, and for selection of papers to be submitted for consideration by the Conference organisers. Applications to take part should be made through the appropriate national authorities (Atomic Energy Commissions or their counterparts, scientific departments of Governments, etc.).

The provisional agenda is:

Nuclear power and special applications

Energy resources and requirements

- 1.1. Survey of world energy demand and resources up to the year 2000
- 1.2. Projected role of nuclear energy in meeting future energy needs

Current status of nuclear power plants in operation

- 1.3. Performance of nuclear power plants
- 1.4. Techniques for costing nuclear power plants and recent cost trends
- 1.5. Review of safety aspects of nuclear power plants

Current and future developments in power reactors

- 1.6. Optimum integration of nuclear power plants in electrical networks as a means of lowering the costs of delivered power: current experience and future developments
- 1.7. Developments in breeder and advanced converter reactors including long-term development prospects for fission reactor systems
- 1.8. Prospects of small- and medium-power reactors
- 1.9. Nuclear energy for desalination and agro-industrial complexes

Advanced and special applications

- 1.10. Utilisation of research reactors and their role in stimulating nuclear technology in developing countries
- 1.11. Advanced research uses of reactors and accelerators, and applications in energy conversion
- 1.12. Applications of nuclear explosions for civil engineering and mineral resources development
- 1.13. Special applications of nuclear energy
- 1.14. Status and prospects of controlled thermonuclear reactions

Nuclear fuels, cycles and materials

Fuels, materials and services

- 2.1. Uranium and thorium resources, supply, demand and costs
- 2.2. Integrated planning of nuclear industry; anticipated demand for and supply of enriched uranium, plutonium and heavy water, as well as reprocessing services
- 2.3. Review of fuel fabrication processes and costs
- 2.4. Experience with fuel reprocessing plants; improved techniques for reprocessing
- 2.5. Developments in isotope enrichment techniques and trends in costs for enrichment services
- 2.6. Review of developments in fuel materials technology

Fuel cycles

- 2.7. Uranium-plutonium fuel cycle for thermal and fast reactors
- 2.8. Developments in the thorium fuel cycle
- 2.9. Practical aspects of nuclear fuel management for electric power utilities

Radiation effects

- 2.10. Effects of radiation on reactor fuels, fuel materials and assemblies
- 2.11. Radiation damage to the internals and structural materials of reactors other than fuel assemblies

Health, safety and legal aspects of nuclear energy

- 3.1. Health physics and radiation protection
- 3.2. Review of developments in radioactive waste management
- 3.3. Environmental effects and public acceptance
- 3.4. Legislative, insurance and regulatory aspects

Applications of isotopes and radiation

Applications in food and agriculture

- 4.1. Nuclear methods of increasing food production
- 4.2. Nuclear methods of reducing food losses

Applications in the life sciences

- 4.3. Medical applications: techniques and use in diagnosis, therapy and research, including dosimetric aspects
- 4.4. Radiation biology: studies of cell function, radiation micro-biology and biosphere resources

Use in applied sciences and technology

- 4.5. Industry: study, investigation and development of resources
- 4.6. Production and application of transuranium and super-heavy isotopes

International and administrative aspects of nuclear energy

Safeguards

- 5.1. Safeguards systems analysis and safeguards objectives
- 5.2. Safeguards techniques and instrumentation
- 5.3. Nuclear materials accounting systems

Organisational and co-operative aspects

- 5.4. Organisation of national atomic energy commissions and their relationship with other bodies and institutions
- 5.5. International co-operation in nuclear projects and exchange of information

Aspects of nuclear technology of particular interest for developing countries

- 6.1. Impact of nuclear technology in developing countries
- 6.2. Financing of nuclear projects in developing countries
- 6.3. Education and training of scientists and technicians; public information.