

# THE AGENCY'S SAFETY STANDARDS AND MEASURES

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## **THE AGENCY'S SAFETY STANDARDS AND MEASURES**

1. The Agency's Health and Safety Measures<sup>1</sup> were first approved by the Board of Governors on 31 March 1960 in implementation of Articles III.A.6 and XII of the Statute of the Agency. On the basis of the experience gained from applying those measures to projects carried out by Members under agreements concluded with the Agency, the Agency's Health and Safety Measures were revised in 1975 and approved by the Board of Governors on 25 February 1976.
2. The Agency's Safety Standards and Measures as revised are reproduced in this document for the information of all Members.

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<sup>1</sup> Set forth in document INFCIRC/18.

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# 1. DEFINITIONS

1.1. "Safety standards" means standards, regulations, rules or codes of practice established to protect man and the environment against ionizing radiation and to minimize danger to life and property.

1.2. "The Agency's safety standards" means safety standards established by the Agency under the authority of the Board of Governors. Such standards comprise:

- (a) The Agency's basic safety standards for radiation protection, which prescribe maximum permissible doses and dose limits;
- (b) The Agency's specialized regulations, which are safety prescriptions relating to particular fields of operation; and
- (c) The Agency's codes of practice, which establish for particular activities the minimum requirements which, in the light of experience and the current state of technology, must be fulfilled to ensure adequate safety. Codes of practice are, as appropriate, supplemented by safety guides recommending a procedure or procedures that might be followed in implementing them.

1.3. "Safety measure" means any action, condition or procedure to ensure the observance of safety standards.

1.4. "Assisted operation" means an operation undertaken by a State or group of States to which assistance is provided by or through the Agency in the form of materials, services, equipment, facilities or information pursuant to an agreement between the Agency and that State or group of States.

1.5. "Nuclear facilities" means facilities, such as fuel enrichment and fabrication plants, reactors, fuel reprocessing plants and waste management facilities, forming part of the nuclear fuel cycle, but excludes facilities, such as mines and mills, concerned with raw materials.

1.6. "Radioactive material" means any material which spontaneously emits ionizing radiation and of which the specific activity is greater than 0.002 microcuries per gram.

1.7. "Radiation source" means any radioactive material or any device which produces ionizing radiation.

1.8. "Major incident" means any occurrence or condition which results or could result in the exposure of any person to ionizing radiation in excess of twice the maximum permissible annual doses or dose limits specified in the Agency's Basic Safety Standards for Radiation Protection<sup>1</sup>.

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<sup>1</sup> IAEA Safety Series No. 9, 1967 edition (STI/PUB/147).

## 2. GENERAL

2.1. Under its Statute the Agency is authorized to establish or adopt standards of safety for the protection of health, life and property and to provide for their application to assisted operations; the Agency may also, if so requested by a State or States, provide for the application of such standards to operations under bilateral or multilateral arrangements or to a State's own activities in the field of atomic energy<sup>2</sup>. To enable the Agency to carry out these functions the Statute provides that it shall have certain rights and responsibilities with respect to any project for which it gives assistance<sup>3</sup>.

2.2. The safe operation of nuclear facilities and the safe use of radiation sources are of great importance to all persons connected with such facilities and sources, to the State authorizing their operation or use, and to other persons and States that might be adversely affected by their unsafe operation or use. In establishing safety standards and recommending safety measures, the Agency's principal objective is to provide practical guidance and effective assistance to its Members in the safe use of atomic energy for peaceful purposes.

2.3. Safety standards must be adequate as a means of controlling a hazard and safety measures must be effective as a means of ensuring the observance of applicable safety standards. With respect to an assisted operation, a State can be allowed considerable latitude in applying its own system of safety standards and measures after the Agency has established that the system is adequate.

2.4. To evaluate the adequacy of the safety standards and measures to be applied to an assisted operation, prior examination of those safety standards and measures together with the preliminary safety assessment and plans of the operation is necessary. The effectiveness of the safety measures may subsequently be evaluated by safety missions which the Agency, in agreement with the State, sends to that State.

2.5. If States party to a bilateral or multilateral arrangement request the Agency to apply safety standards to or determine the safety measures for that arrangement, or if a State makes a similar request in respect of its own activities, such application or determination shall be effected by an agreement between the Agency and the States, or the State, in question.

2.6. The procedures for applying safety standards and measures set forth in this document will give effect to the relevant provisions of the Statute. They will also:

- (a) Enable a State requesting assistance by or through the Agency to consider in advance what safety measures are appropriate to the form and scope of the assisted operation; and
- (b) Enable States party to a bilateral or multilateral arrangement to consider what safety standards and measures might be applied to that arrangement, or enable a State to take similar action in respect of its own activities, if a request for the application of safety standards and measures is made to the Agency.

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<sup>2</sup> See Article III.A.6 of the Statute.

<sup>3</sup> See Article XI and XII.

### **3. INFORMATION TO BE PROVIDED TOGETHER WITH REQUESTS FOR ASSISTANCE**

**3.1.** When requesting assistance by or through the Agency, the State shall provide the Agency with:

- (a)** A description of the operation for which assistance is requested, giving the detailed information necessary for the Agency to reach the conclusions to which paragraphs 4.5 and 4.6 below relate; and
- (b)** A statement of the safety standards that it proposes to apply to the operation.

**3.2.** Additional information may be required under the provisions of paragraph 4.6 below.

## **4. APPLICATION OF SAFETY STANDARDS AND MEASURES TO ASSISTED OPERATIONS**

**4.1.** In the application of the Agency's safety standards and measures to an assisted operation, all responsibility for safety shall be assumed by the State and the Agency shall incur no liability whatsoever.

**4.2.** Safety standards shall be applied to all assisted operations involving nuclear facilities and, except possibly in the situations envisaged in subparagraphs 4.5(b) and (c) below, radiation sources.

**4.3.** The safety standards to be applied to an assisted operation shall be the Agency's safety standards or other safety standards, proposed by the State, which the Agency also considers adequate. If the Agency finds that the safety standards proposed by the State are not adequate, it shall either indicate what changes it considers necessary or stipulate the application of its own safety standards.

**4.4.** The agreement between the Agency and the State for the provision of assistance shall specify the safety standards to be applied to the assisted operation and shall provide for the application of the Agency's safety measures in accordance with paragraphs 4.5 to 4.10 below.

**4.5.** The Agency may waive the application of its safety measures to an assisted operation if, on the basis of the information provided in accordance with paragraph 3.1 above, it concludes that the assisted operation does not involve:

- (a) Nuclear facilities;
- (b) Devices which produce ionizing radiation where the radiation levels are such that the dose rate at any point at a distance of 0.1 metres from the external surface of the device exceeds 0.1 millirems per hour; or
- (c) Natural or artificially produced radioactive material in quantities exceeding the maximum permissible activities for exemption from notification, registration or licensing specified in the Agency's Basic Safety Standards for Radiation Protection.

**4.6.** The Agency may require a State to submit in good time the information necessary for assessing the effectiveness of the safety measures planned for an assisted operation if, on the basis of the information provided in accordance with paragraph 3.1 above, it concludes that the assisted operation involves:

- (a) Nuclear facilities;
- (b) Devices which produce ionizing radiation where the radiation levels are such that the maximum permissible doses for occupational exposure specified in the Agency's Basic Safety Standards for Radiation Protection could be exceeded; or
- (c) Natural or artificially produced radioactive material in quantities exceeding 100 times the maximum permissible activities for exemption from notification, registration or licensing specified in the Agency's Basic Safety Standards for Radiation Protection.

**4.7.** The information necessary for assessing the effectiveness of planned safety measures includes:

- (a) A description of the administrative organization set up by the State for dealing with safety matters and of the administrative system that the State proposes to employ in evaluating and ensuring the safety of the assisted operation (for example, the keeping of records, reporting procedures, inspections and supervisory examinations); and

- (b) A safety analysis report<sup>4</sup> or a similar document giving information on:
- (i) The siting of the nuclear facility;
  - (ii) The installations and equipment to be made available, with design details and a statement of the principal operating characteristics;
  - (iii) Criteria for quality assurance;
  - (iv) The safety features of the installations and equipment (for example, radiation-monitoring systems);
  - (v) The operational rules for normal conditions and plans for foreseeable emergency conditions;
  - (vi) The quantities of radioactive waste which are likely to be produced and the methods of waste management to be employed; and
  - (vii) The availability of adequately trained personnel and of training programmes.

4.8. When the Agency has determined that the planned safety measures are adequate to ensure the observance of the safety standards specified in the agreement between the Agency and the State, or when the State has undertaken to apply such additional safety measures as the Agency may require, the Agency shall agree to the starting of the assisted operation.

4.9. The State shall notify the Agency without delay of any major incident in connection with an assisted operation and submit to the Agency a detailed technical report thereon as soon as reasonably possible. Pending the submission of that report, it shall submit an initial report forthwith and interim reports at intervals of at most three months thereafter.

4.10. The State shall provide the Agency with copies of reports on any supervisory examinations it may make of an assisted operation to which the Agency's safety measures are being applied, for the purpose of ascertaining whether the relevant safety standards are being complied with.

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<sup>4</sup> See, for example, "Guidelines for the Layout and Contents of Safety Reports for Stationary Nuclear Power Plants", IAEA Safety Series No. 34, 1970 (STI/PUB/272).



## 5. SAFETY MISSIONS

5.1. The Agency may, in agreement with the State, send safety missions for the purpose of providing advice and assistance in connection with the application of safety measures to an assisted operation. The State shall be duly informed by the Agency of the results of such safety missions and shall take full account of the Agency's recommendations with respect to an assisted operation to which the Agency's safety measures are being applied.

5.2. Notwithstanding the provisions of paragraph 5.1. above, the Agency may, in connection with an assisted operation and in accordance with the relevant provisions of the Statute<sup>5</sup>, send safety missions into the territory of the State or States concerned:

- (a) Upon notification by the State or States of a major incident; or
- (b) At the request of the Board of Governors.

5.3. Arrangements for safety missions shall be made by the Director General with the State concerned, and the State, in agreement with the Agency, shall perform or arrange for the Agency to perform the tests and examinations deemed necessary by the Agency.

5.4. Arrangements for safety missions connected with an assisted operation shall be embodied in the agreement between the Agency and the State for the provision of assistance.

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<sup>5</sup> See Article XII.A.6.

## **6. CHANGES IN SAFETY STANDARDS AND MEASURES**

**6.1.** Any proposal by the Agency to modify its safety standards shall be submitted to the Board of Governors for approval.

**6.2.** If the Agency introduces any changes into the safety standards or measures applicable to an assisted operation, or if the Agency determines that the safety standards or measures originally accepted by it and being applied by the State to such an operation are no longer adequate, the Agency shall consult the State with a view to agreement on appropriate changes in the safety standards or measures being applied.

**6.3.** If the State proposes to introduce any changes into the safety standards or measures accepted by the Agency and being applied to an assisted operation, it shall consult the Agency with a view to agreement on the proposed changes.