

in this Agreement, and shall make the optimum and most economical use of inspection resources available to it.

Article 79

The Agency may carry out one routine inspection per year in respect of facilities and material balance areas outside facilities with a content or annual throughput, whichever is greater, of nuclear material not exceeding five effective kilograms.

Article 80

The number, intensity, duration, timing and mode of routine inspections in respect of facilities with a content or annual throughput of nuclear material exceeding five effective kilograms shall be determined on the basis that in the maximum or limiting case the inspection regime shall be no more intensive than is necessary and sufficient to maintain continuity of knowledge of the flow and inventory of nuclear material, and the maximum routine inspection effort in respect of such facilities shall be determined as follows:

- (a) For reactors and sealed storage installations the maximum total of routine inspection per year shall be determined by allowing one sixth of a man-year of inspection for each such facility;
- (b) For facilities, other than reactors or sealed storage installations, involving plutonium or uranium enriched to more than 5 %, the maximum total of routine inspection per year shall be determined by allowing for each such facility $30 X \frac{1}{E}$ man-days of inspection per year, where E is the inventory or annual throughput of nuclear material, whichever is greater, expressed in effective kilograms. The maximum established for any such facility shall not, however, be less than 1.5 man-years of inspection; and
- (c) For facilities not covered by paragraphs (a) or (b), the maximum total of routine inspection per year shall be determined by allowing for each such facility one third of a man-year of inspection plus $0.4 \frac{1}{E}$ man-days of inspection per year, where E is the inventory or annual throughput of nuclear material, whichever is greater, expressed in effective kilograms.

The Government of the G.D.R. and the Agency may agree to amend the figures for the maximum inspection effort specified in this Article, upon determination by the Board that such amendment is reasonable.

Article 81

Subject to Articles 78—80 the criteria to be used for determining the actual number, intensity, duration, timing and mode of routine inspections in respect of any facility shall include:

- (a) The form of the nuclear material, in particular, whether the nuclear material is in bulk form or contained in a number of separate items; its chemical composition and, in the case of uranium, whether it is of low or high enrichment; and its accessibility;
- (b) The effectiveness of the GDR's accounting and control system, including the extent to which the operators of facilities are functionally independent of the G.D.R.'s accounting and control system; the extent to which the measures specified in Article 32 have been implemented by the G.D.R.; the promptness of reports provided to the Agency; their consistency with the Agency's independent

verifications; and the amount and accuracy of the material unaccounted for, as verified by the Agency;

- (c) Characteristics of the GDR's nuclear fuel cycle, in particular, the number and types of facilities containing nuclear material subject to safeguards, the characteristics of such facilities relevant to safeguards, notably the degree of containment; the extent to which the design of such facilities facilitates verification of the flow and inventory of nuclear material; and the extent to which information from different material balance areas can be correlated;
- (d) International interdependence, in particular, the extent to which nuclear material is received from or sent outside the G.D.R. for use or processing; any verification activities by the Agency in connection therewith; and the extent to which the G.D.R.'s nuclear activities are interrelated with those outside the G.D.R.; and
- (e) Technical developments in the field of safeguards, including the use of statistical techniques and random sampling in evaluating the flow of nuclear material.

Article 82

The Government of the G.D.R. and the Agency shall consult if the Government of the G.D.R. considers that the inspection effort is being deployed with undue concentration on particular facilities.

Notice of inspections

Article 83

The Agency shall give advance notice to the Government of the G.D.R. before arrival of inspectors at facilities or material balance areas outside facilities, as follows:

- (a) For ad hoc inspections pursuant to Article 71(c), at least 24 hours; for those pursuant to Article 71(a) and (b) as well as the activities provided for in Article 48, at least one week;
- (b) For special inspections pursuant to Article 73, as promptly as possible after the Government of the G.D.R. and the Agency have consulted as provided for in Article 77, it being understood that notification of arrival normally will constitute part of the consultations; and
- (c) For routine inspections pursuant to Article 72, at least 24 hours in respect of the facilities referred to in Article 80(b) and sealed storage installations containing plutonium or uranium enriched to more than 5 %, and one week in all other cases.

Such notice of inspections shall include the names of the inspectors and shall indicate the facilities and the material balance areas outside facilities to be visited and the periods during which they will be visited. If the inspectors are to arrive from outside the G.D.R. the Agency shall also give advance notice of the place and time of their arrival in the G.D.R.

Article 84

Notwithstanding the provisions of Article 83, the Agency may, as a supplementary measure, carry out without advance notification a portion of the routine inspections pursuant to Article 80 in accordance with the principle of random sampling. In performing any unannounced inspections, the Agency shall fully take