

G. Effective kilogram means a special unit used in safeguarding nuclear material. The quantity in effective kilograms is obtained by taking:

- (a) For plutonium, its weight in kilograms;
- (b) For uranium with an enrichment of 0.01 (1 %) and above, its weight in kilograms multiplied by the square of its enrichment;
- (c) For uranium with an enrichment below 0.01 (1 %) and above 0.005 (0.5 %), its weight in kilograms multiplied by 0.0001; and
- (d) For depleted uranium with an enrichment of 0.005 (0.5 %) or below, and for thorium, its weight in kilograms multiplied by 0.00005.

H. Enrichment means the ratio of the combined weight of the isotopes uranium-233 and uranium-235 to that of the total uranium in question.

I. Facility means:

- (a) A reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant or a separate storage installation;
- (b) Any location where nuclear material in amounts greater than one effective kilogram is customarily used.

J. Inventory change means an increase or decrease, in terms of batches, of nuclear material in a material balance area; such a change shall involve one of the following:

- (a) Increases:
 - (i) Import;
 - (ii) Domestic receipt: receipts from other material balance areas, receipts from a non-safeguarded (non-peaceful) activity or receipts at the starting point of safeguards;
 - (iii) Nuclear production: production of special fissionable material in a reactor; and
 - (iv) De-exemption: re-application of safeguards on nuclear material previously exempted therefrom on account of its use or quantity.
- (b) Decreases:
 - (i) Export;
 - (ii) Domestic shipment: shipments to other material balance areas or shipments for a non-safeguarded (non-peaceful) activity;
 - (iii) Nuclear loss: loss of nuclear material due to its transformation into other element(s) or isotope(s) as a result of nuclear reactions;
 - (iv) Measured discard: nuclear material which has been measured, or estimated on the basis of measurements, and disposed of in such a way that it is not suitable for further nuclear use;
 - (v) Retained waste: nuclear material generated from processing or from an operational accident, which is deemed to be unrecoverable for the time being but which is stored;
 - (vi) Exemption: exemption of nuclear material from safeguards on account of its use or quantity; and
 - (vii) Other loss: for example, accidental loss (that is, irretrievable and inadvertent loss of nuclear material as the result of an operational accident) or theft.

K. Key measurement point means a location where nuclear material appears in such a form that it may

be measured to determine material flow or inventory. Key measurement points thus include, but are not limited to, the inputs and outputs (including measured discards) and storages in material balance areas.

L. **Man-year of inspection** means, for the purposes of Article 30, 300 man-days of inspection, a man-day being a day during which a single inspector has access to a facility at any time for a total of not more than eight hours.

M. **Material balance area** means an area in or outside of a facility such that:

- (a) The quantity of nuclear material in each transfer into or out of each material balance area can be determined; and
- (b) The physical inventory of nuclear material in each material balance area can be determined when necessary, in accordance with specified procedures,

in order that the material balance for Agency safeguards purposes can be established.

N. **Material unaccounted for** means the difference between book inventory and physical inventory.

O. **Nuclear material** means any source or any special fissionable material as defined in Article XX of the Statute. The term source material shall not be interpreted as applying to ore or ore residue. Any determination by the Board under Article XX of the Statute after the entry into force of this Agreement which adds to the materials considered to be source material or special fissionable material shall have effect under this Agreement only upon acceptance by the Government of the G.D.R.

P. **Physical inventory** means the sum of all the measured or derived estimates of batch quantities of nuclear material on hand at a given time within a material balance area, obtained in accordance with specified procedures.

Q. **Shipper/receiver difference** means the difference between the quantity of nuclear material in a batch as stated by the shipping material balance area and as measured at the receiving material balance area.

R. **Source data** means those data, recorded during measurement or calibration or used to derive empirical relationships, which identify nuclear material and provide batch data. Source data may include, for example, weight of compounds, conversion factors to determine weight of element, specific gravity, element concentration, isotopic ratios, relationship between volume and manometer readings and relationship between plutonium produced and power generated.

S. **Strategic point** means a location selected during examination of design information where, under normal conditions and when combined with the information from all strategic points taken together, the information necessary and sufficient for the implementation of safeguards measures is obtained and verified; a strategic point may include any location where key measurements related to material balance accountability are made and where containment and surveillance measures are executed.

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For the GOVERNMENT OF THE GERMAN DEMOCRATIC REPUBLIC:

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s./ Sigvard E k l u n d