

## ANNEX B

## Equipment

- (1) Nuclear reactors capable of operation so as to maintain a controlled self-sustaining fission chain reaction, excluding zero energy reactors, the latter being defined as reactors with a designed maximum rate of production of plutonium not exceeding 100 grams per year.

A "nuclear reactor" basically includes the items within or attached directly to the reactor vessel, the equipment which controls the level of power in the core, and the components which normally contain, or come in direct contact with, or control the primary coolant of the reactor core.

It is not intended to exclude reactors which could reasonably be capable of modification to produce significantly more than 100 grams of plutonium per year. Reactors designed for sustained operation at significant power levels, regardless of their capacity for plutonium production, are not considered as "zero energy reactors".

- (2) Reactor pressure vessels: metal vessels, as complete units or as major shop-fabricated parts therefor, which are especially designed or prepared to contain the core of a nuclear reactor as defined in paragraph (1) above and are capable of withstanding the operating pressure of the primary coolant.

A top plate for a reactor pressure vessel is a major shop-fabricated part of a pressure vessel.

- (3) Reactor internals: support columns and plates for the core and other vessel internals, control rod guide tubes, thermal shields, baffles, core grid plates, diffuser plates, etc.
- (4) Reactor fuel charging and discharging machines: Manipulative equipment especially designed or prepared for inserting or removing fuel in a nuclear reactor as defined in paragraph (1) above capable of on-load operation or employing technically sophisticated positioning or alignment features to allow complex off-load fuelling operations such as those in which direct viewing of or access to the fuel is not normally available.
- (5) Reactor control rods: Rods especially designed or prepared for the control of the reaction rate in a nuclear reactor as defined in paragraph (1) above. This item includes, in addition to the neutron absorbing part, the support or suspension structures therefor if supplied separately.
- (6) Reactor pressure tubes: Tubes which are especially designed or prepared to contain fuel elements and the primary coolant in a reactor as defined in paragraph (1) above at an operating pressure in excess of 50 atmospheres.
- (7) Zirconium tubes: Zirconium metal and alloys in the form of tubes or assemblies of tubes and in quantities exceeding 500 kg per year, especially designed or prepared for use in a reactor as defined in paragraph (1) above, and in which the relationship of hafnium to zirconium is less than 1:500 parts by weight.
- (8) Primary coolant pumps: Pumps especially designed or prepared for circulating the primary coolant for nuclear reactors as defined in paragraph (1) above.