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AERB Directive No. 02/2021

Sub: Exemption of Equipment/Devices/Appliances containing Radioactive Substance or Material and Radiation Generating Equipment.

In exercise of the powers conferred by the Government of India, Department of Atomic Energy notification no. S.O.504 (E) dated 2nd February 2021, this directive is made under rule (5) of the Atomic Energy (Radiation Protection) Rules, 2004 to regulate the exemption of radiation generating equipment, devices or appliances emitting radiation.

Equipment/Devices/Appliances containing Radioactive Substance or Material

- (1) The use of equipment or devices or appliances containing radioactive substance or material of activity in excess of the generic exemption levels may be considered for exemption from licensing requirements:

Provided that in normal operating conditions, the ambient dose equivalent rate is $\leq 1 \mu\text{Sv/h}$ at 0.1 m from any accessible surface of the equipment, the equipment containing radioactive substance or material is type approved by the Atomic Energy Regulatory Board (hereinafter referred to as 'AERB') and the radioactive material is in the form of:

- a sealed source that effectively prevents any contact with the radioactive material and prevents its leakage; or
- an unsealed source in a small amount such as sources used for radioimmunoassay;

Provided further that disposal of the equipment /devices/ appliances containing radioactive substance or material shall be carried out in accordance with the conditions specified by AERB in the Type Approval Certificate.

- (2) Notwithstanding anything contained herein above, based on safety assessment, specific exemption on a case by case basis may be considered in the instances of deviation from the aforesaid conditions for exemption of equipment/devices/appliances containing radioactive substances or materials.

Radiation Generating Equipment

- (1) Use of Radiation Generating Equipment that are type approved by AERB, or in the form of an electronic tube, such as a cathode ray tube for the display of visual images are exempted:

Provided that:

- in normal operating conditions, they do not cause an ambient dose equivalent rate or a directional dose equivalent rate, as appropriate, exceeding $1 \mu\text{Sv/h}$ at a distance of 0.1 m from any accessible surface of the equipment; or
- the maximum energy of the radiation generated is not greater than 5 keV.

- (2) Notwithstanding anything contained hereinabove, specific exemption on a case by case basis may be considered based on safety assessment in instances of deviation from the aforesaid conditions for exemption of radiation generating equipment.

Type Approval Certificate

The type approval referred to hereinabove shall specify as to whether the particular model is exempted or not. It shall be demonstrated that under all reasonably foreseeable circumstances, the assessed effective dose that may be expected to be incurred by any individual is of the order of $10 \mu\text{Sv}$ or less in a year and in a low probability scenario, as determined by AERB, does not exceed 1 mSv in a year.



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