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Therac-25 Glossary

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Description

A glossary of terms used in the Therac-25 case.

Body

Actuator: Device for moving the turntable.

CGR: Compagnie Generale Radiologie (CGR), an established French radiology firm from which AECL got some of its technology for the Therac series of machines.

Class 1 Recalls: The most serious recalls in terms of health risk.

AECL: Canadian company that designed and manufactured the Therac-25.

Collimator: A device for obtaining a particle beam of limited cross section.

Dosimeter: Radiation dose measuring device.

Electron beams: Accelerated electrons are absorbed by phosphors, which in turn produce light.

eV: The energy needed to move one electron through a potential of one volt.

Gantry: The turntable assembly.

GAO and Comptroller General:

The General Accounting Office is the investigative arm of the Congress and is charged with examining all matters relating to the receipt anddisbursement of public funds.

The General Accounting Office (GAO) was established by the Budget and Accounting Act of 1921 (31 U.S.C. 702), to independently audit Government agencies. Over the years, the Congress has expanded GAO's audit authority, added new responsibilities and duties, and strengthened GAO's ability to perform independently.

The Office is under the control and direction of the Comptroller General of the United States, who is appointed by the President with the advice and consent of the Senate for a term of 15 years.

Kludge or Kluge: A computer system made up of poorly matched components.

Medical Linear Accelerator: A device that accelerates electrons to create an electron beam.

Operator: The individual responsible for the facitily room and preparing the Therac-25 machine for a particular patient.

Potentiometer: A device that independently monitors turntable position.

Rad (radiation absorbed dose): The amount of radiation that is absorbed by tissue in a treatment. Acceptable level for single treatment is around 200 rad.

Radiation therapy: Exposure to ionizing radiation using electron, X-rays or gamma rays. It is administered in a series of sessions occurring over several weeks.

Radiation therapy technician:

X-ray (photons): High intensity electron beam (25 MeV) that is transformed. Often used to in treating deeper tissue areas.

Therac-25: A medical linear accelerator that folds the electron beam back and forth. This allows for a higher energy beam to be produced.

25 MeV: 25 million electron volts. This is the electron beam used in Therac 25.

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