

EFCOG Response to SNL RGD Question

Site	Responder	RGD Threshold Energy (kev)	Justification for RGD Threshold Energy
Energy Solutions LLC Y-12	Mark Ledoux Bobby Oliver	No RGDs Electron generating devices that produce x-rays incidentally and Small particle accelerators used for single purpose applications which produce ionizing radiation	We use ANSI N43.2 and 43.3 for safety feature requirements, etc. Our features and level of review/approval by our RGD committee are graded if the x-rays are incidental. This may not answer your question. I can send you our plant RGD procedure if you are interested.
ORNL	Gloria Mei	X-ray devices that operate in a vacuum at 16 kilovolts or below are exempt from requirements of ORNL SBMS RGD procedural requirements, which include RGD registration. If the operation is 16 kilovolts or below but not in a vacuum then it would need evaluation for radiation levels and other safety features.	ORNL RGD Program follows regulatory and industrial standards including ANSI N 43.2, N 43.3, N 43.5, and 21 CFR 1020.
NTS	Doug Mc Bride	No Threshold for registering RGDs	Within our program are x-ray devices with an output around 30 kev and neutron generators with an output of 14 Mev, and everything in between. They have no systems less than 30 kev.
LBNL	David Kestell	Current RGD classification system is based on accessible dose rate. Three classes exist: Class I < 5 mrem/h; Class II \geq 5 mrem/h but < 50 mrem/h; and Class III \geq 50 mrem/h. However, plan is to convert to \geq 20 kev, 1mA inside a 0.5 inch aluminium wall starts the RGD program.	Radiation Physics Group modeling of projected dose rate for electronic devices with 10 to 40 keV, 1 mA and 0.5 inch aluminium wall indicates no potential for dose \geq 5 mrem/h if potential \leq 20 keV.
SNL	Bob Miltenberger	Systems in vacuum Greater than 15 KeV and lasers in excess of 1 TWt	Math modelling and historic survey data used to generate these thresholds.