

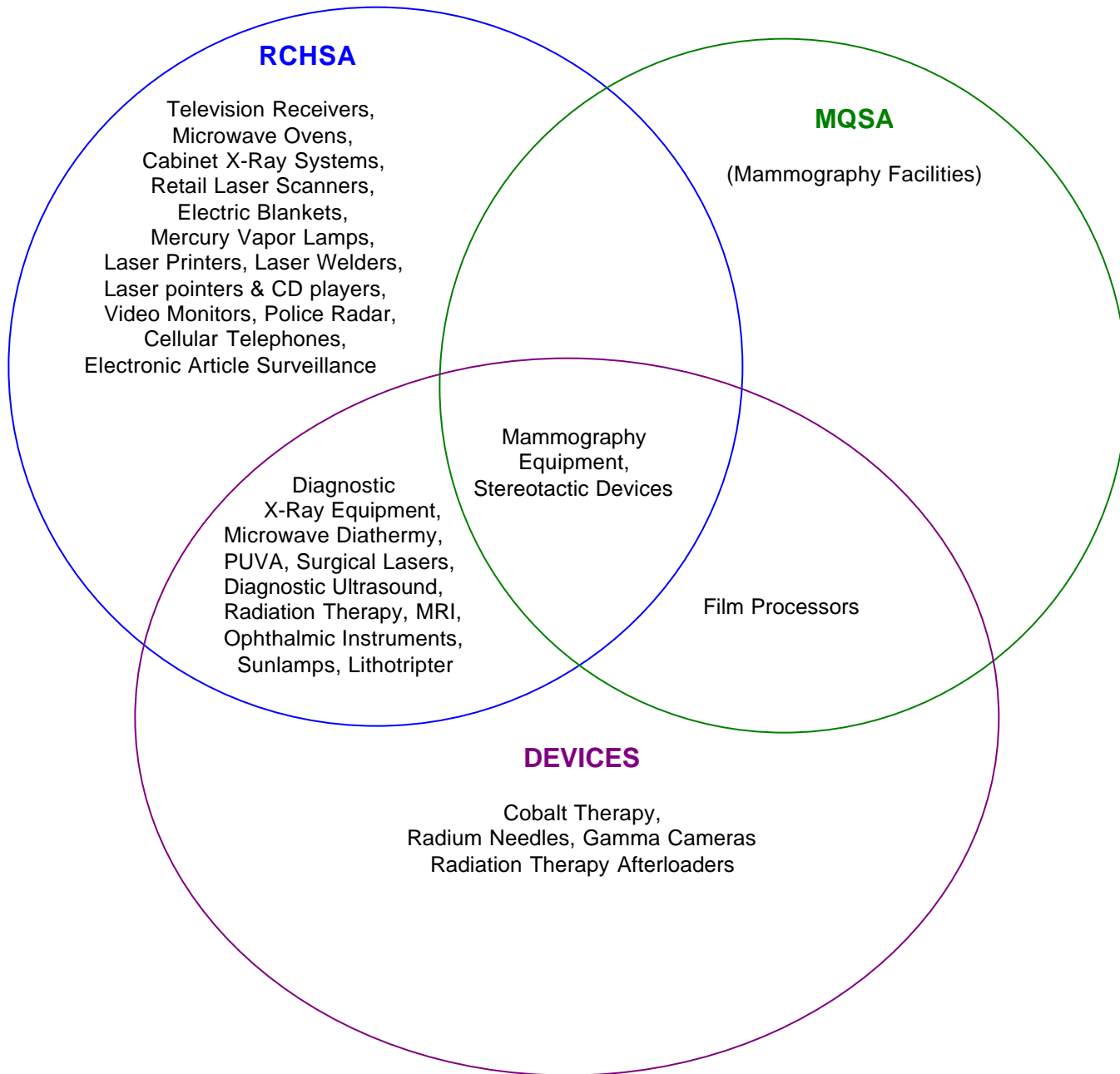
Examples of Radiation-Emitting Electronic Products

Radiation Use	Ionizing (x-ray)	Optical (visible, UV, IR, laser)	RF, Microwave, VLF/ELF, magnetic	Acoustic (sonic, ultrasonic)
Medical: Diagnostic	<ul style="list-style-type: none"> • General radiography • Dental radiography • Fluoroscopy • Computed tomography • Mammography 	<ul style="list-style-type: none"> • Slit lamp • Retinal acuity • Fluorescence spectroscopy • Transilluminator 	<ul style="list-style-type: none"> • Magnetic resonance imaging 	<ul style="list-style-type: none"> • Ultrasonography • Doppler ultrasound • Color doppler ultrasound
Medical: Therapeutic	<ul style="list-style-type: none"> • Medical accelerator • (Rad therapy) 	<ul style="list-style-type: none"> • Wound healing • Low-level laser therapy • PUVA therapy 	<ul style="list-style-type: none"> • Hyperthermia • Diathermy • Bone healing • Wound healing • Prostate therapy 	<ul style="list-style-type: none"> • Hyperthermia • Diathermy/physical therapy • Bone healing • Lithotripsy
Medical: Surgical	<ul style="list-style-type: none"> • Intra-operative electron beam 	<ul style="list-style-type: none"> • Surgical laser • Ophthalmic, PRK laser • Dental laser 	<ul style="list-style-type: none"> • Electrocautery 	<ul style="list-style-type: none"> • Phacoemulsifier • Needle guide
Medical: Other	<ul style="list-style-type: none"> • Bone density measurement • Cabinet x-ray • Veterinary imaging 	<ul style="list-style-type: none"> • Germicide lamps • Dental resin curing • Operating lights • Patient positioning • X-Ray indicator light field 	<ul style="list-style-type: none"> • Blood warmers (microwave) • Sterilizer (plasma) • Telemetry 	<ul style="list-style-type: none"> • Bone density measuring • Geriatric bath (ultrasound) • Hearing aid
Scientific, Other	<ul style="list-style-type: none"> • Analytical x-ray • Oscilloscope 	<ul style="list-style-type: none"> • Research lasers • UV/IR research, uses 	<ul style="list-style-type: none"> • Many scientific uses • Nuclear magnetic resonance • Weather doppler 	<ul style="list-style-type: none"> • Many scientific uses
Industrial	<ul style="list-style-type: none"> • Cabinet x-ray • Industrial x-ray • Check weld/metal integrity 	<ul style="list-style-type: none"> • Ranging & detection • Alignment, surveying • Laser welder • Laser material processing • Process control/ machine vision • UV curing 	<ul style="list-style-type: none"> • Dielectric heater, sealer • Food processing • Dryer • Air traffic control 	<ul style="list-style-type: none"> • Nondestructive tests • Gauging • Detect motion/occupancy • Cleaner • Welder
Business, Commercial, Security	<ul style="list-style-type: none"> • People (contraband) scanner • Baggage x-ray 	<ul style="list-style-type: none"> • Suntan parlors • Fluorescent lamp • IR detector or security • Fiberoptic communication • Reprographics • Mercury vapor lamp • UPC readers • Laser pointer • IR data transmit/control 	<ul style="list-style-type: none"> • Police radar • Pest controllers • EAS, metal detector • Security system (microwave) • Walkie-talkie • Clothes dryer • Communication • Microwave LAN • RF-excited lighting 	<ul style="list-style-type: none"> • Jewelry cleaners • Motion detector • Security system • Humidifier
Consumer (household, entertainment, sports)	<ul style="list-style-type: none"> • Television receiver • Video monitor • Night vision scope 	<ul style="list-style-type: none"> • Halogen lamp • Laser light shows • Laser printer • Suntan bed, lamps • CD and CD-ROM player • Laser toys/novelities • Laser gunsight • Remote controller • Autofocus camera • Digital display/monitor 	<ul style="list-style-type: none"> • Cellular telephone • Microwave oven • Electric blanket • CB/amateur radio • Intrusion/anti-theft • Remote controller • Video monitor 	<ul style="list-style-type: none"> • Ultrasonic toothbrush • Pest repeller • Intrusion alarm/security • Audio system/radio • Massager • Humidifier • Autofocus camera • Telephone ringer

products subject to mandatory radiation performance standard are in dark red

Overlap of FDA Enforcement Authorities for Radiation-Emitting Products

(with examples of products)



RCHSA =
Radiation Control for Health and
Safety Act of 1968 (now
incorporated in the Federal Food,
Drug, and Cosmetic Act as
Chapter V, Subchapter 3,
Electronic Product Radiation
Control)

MQSA =
Mammography Quality Standards
Act of 1992

Devices =
Federal Food, Drug, and Cosmetic
Act, Chapter V, Medical Devices