

Irradiation Services

EVMS Environmental Health & Safety offers the capabilities and services of an ortho-voltage x-ray beam for scientific research that requires irradiation. The radiation source consists of a 2,400-watt metal ceramic x-ray tube, driven by a high frequency power supply and operated by a contemporary computer-based control. Dosimetry services can be provided to ensure accurate exposures.

Varian Metal Ceramic X-Ray Tube

- Stationary Anode
- Water cooled via closed loop, self-contained system
- Up to 225kV & 3,000 Watt continuous operation
- A variety of filters are available to modify photon deposition and penetration

Polaris High Voltage Generator

- State of the art
- High frequency, “low ripple” stable performance
- Direct current output

Polaris SC 500/m Controller

- Tube-Safe technology shuts system down in the event of tube arcing or overheating
- Touch panel controls
 - kV, in one-kV increments
 - mA, in one-tenth mA increments
 - time, in one-second increments

Dosimetry Services

- Electrometer
 - Fluke Biomedical F35040
- Diagnostic X-Ray chamber
 - PTW Farmer tube #N30013, with optional build-up cap
- Calibration is directly traceable to NIST

Fee Schedule

- Beam use is charged per exposure, per Gray, rounded up to the nearest whole Gray
- For single exposures lasting 45 minutes or longer, the per-hour rate will apply in 15-minute increments
- Calibration is charged per exposure event and does not include specialized phantom preparation

User Category	Per Gray	Per Hour	Calibration
EVMS Faculty	\$ 0.60	\$ 40.00	\$ 20.00
Other Academic	0.90	80.00	40.00
External	1.20	120.00	60.00

Contact the EVMS Radiation Safety Officer for more information or to arrange for services

Environmental Health and Safety

P.O. Box 1980
Norfolk VA 23501-1980
TEL 757.446.5798
FAX 757.446.7242
www.evms.edu