

DEPARTMENT OF THE ENVIRONMENT

ENVIROMATTERS

November 15, 2006

Recognizing Radiation Professionals: Glowing Recommendations

In recognition of National Radiation Protection Professionals Week, we honor William Conrad Roentgen who discovered the X-ray on November 8, 1895. This week, we salute the Maryland Department of the Environment (MDE's) employees who serve our citizens. They work daily to protect public health and safety and the environment from inadvertent and unnecessary radiation exposure.

All MDE employees do their share to make this pro-active environmentally protective, regulatory agency effective and take pride in their work. Radiation protection professionals are dedicated to ensuring that radiation and radioactive materials are used safely and beneficially for thousands of medical, transportation and industrial applications.

Too Much of a Good Thing Can be Lethal

Radiation, having had a bad rap over the years, is gaining positive popularity now that citizens understand the diagnostic and therapeutic benefits of this technology. Radiation can injure, burn or even kill when not used safely. But when properly regulated and applied, it performs almost miraculous functions. The Gamma knife, for example, used by surgeons at Johns Hopkins and University of Maryland uses 201 different cobalt devices to treat brain cancer. It can cure a tumor within one day without invasive surgical incisions.

MDE's Radiological Health Program (RHP) is mandated to control the uses of radiation. MDE staff administers the required registration of radiation (X-ray) machines and radioactive materials licenses. If devices fail to recognize radiation hazards and operators fail to follow proper radiation safety practices and procedures, we may initiate enforcement actions, to ensure regulatory compliance.

Notice that we call it Radiological Health, not Radiological Regulation. While MDE is the agency that seeks to protect the public from harmful air emissions, radiation is the most covert and requires diligent monitoring to remain helpful rather than harmful.

Emergency Response

MDE's health physicists respond to radiation accidents in any actual or staged emergencies at either Calvert Cliffs Nuclear Power Plant (Maryland) or Peach Bottom Atomic Power Station (Pennsylvania). Our designated radiation staff also responds to any industrial, medical or transportation accident or serious radiation incident with analysis, communication, and field team surveyors.

The RHP regulates the use of radiation machines and radioactive materials. Radiation machines are used in hospitals, mammography facilities, and other medical and industrial facilities. Radioactive materials are used by properly trained physicians and radiographers in hospital nuclear medicine units. Qualified radioisotope users are inspected in the manufacturing and construction industries, academia and other authorized locations.

Qualified MDE health physicists inspect X-ray machines at dental and veterinary facilities every three years. Staff conducts state mammography facility inspections under contract with the federal Food and Drug Administration according to rigid specifications and to ensure machine operators are following proper safety procedures.

Our Radiological Health Staff display selfless professionalism so that people are able to safely enjoy the tremendous health benefits of radiation use in our society. Learn more at www.mde.state.md.us/Programs/AirPrograms/Radiological_Health/index.asp.

www.mde.state.md.us 800.633.6101



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