



## **X-Ray Security Screening of Humans Regulatory Guide**

The use of sources of radiation for the purpose of screening or inspecting individuals for concealed weapons, hazardous materials, stolen property, illegal goods, or contraband is prohibited without prior written approval granted by the Department in accordance with LAC 33:XV.110.D. The Department will grant written approval if the applicant submits an application and written request for approval that contains adequate justifications, procedures, etc. to meet the requirements outlined in this guidance.

This regulatory guide is provided to describe the type and extent of information required for registration to possess radiation-emitting body scanners for security related purposes in Louisiana. The Department may request additional information to provide reasonable assurance that the applicant has established an adequate radiation protection program.

### **Establishment of a Radiation Safety Program**

Any organization using ionizing radiation for security screening of people shall develop, document, and implement a radiation protection program sufficient to ensure compliance with LAC 33:XV and ANSI/HPS N43.17-2009 standard. The written radiation safety program must be submitted to the Department when applying to register body scanners. At a minimum, the written procedures should address the following:

#### **Operational Documents and Procedures**

Procedures for the proper operation, storage, and maintenance of the unit as set forth by the manufacturer shall be established and be available to all operators. Procedures need to address the selection of appropriate screening mode for each individual, exposure tracking using the unit dose software (or other adequate exposure tracking procedure), use of other security screening techniques when needed (i.e. metal detectors, pat down, etc.), and system damage and/or malfunction.

Preventative maintenance, radiation surveys, and any other tests specified by the manufacturer shall be outlined in the established operating procedures. Records of tests and surveys must be maintained by the responsible official and available for inspection by the Department.

Restriction of use of x-ray screening on minors, pregnant individuals, and individuals of childbearing age shall be a part of the administrative control of use of screening equipment. Minors shall not be scanned with x-ray body scanners for non-medical use. Submit your Policy on Screening of Minors and Pregnant Individuals. These policies shall be posted at the entrance of each x-ray unit.

Procedures shall be established to prevent unauthorized access or use of the units. Only trained and qualified personnel shall operate the units.

Submit the above procedures with the application. Operating procedures must be maintained and available to operators at all times.

### **Assignment of Responsibilities**

Documentation of the individual or individuals responsible for the implementation of all aspects of the radiation safety program. The responsible person is the person responsible for the proposed radiation safety program. The responsible person should have independent authority to stop operations that are considered unsafe.

### **Administrative Controls**

Procedures and controls must be established to limit exposure to 25 mRem/year per person in accordance with the ANSI/HPS N43.17 – 2009 standard. Procedures should describe the mechanism in place to track exposures to individuals. Facilities with more than one unit in use must describe the mechanism in which data from each unit is combined and reviewed. Each facility should have only one account in the x-ray unit software for each individual being exposed. The responsible person should review total exposures to individuals at least annually to assure no person exceeds the annual limit. The registrant must keep records of exposures and reviews until the termination of each registration.

### **Training Program**

All personnel managing and operating security screening systems should have appropriate training and experience. Prior to using the system, personnel should receive both operator training and radiation safety training. The written training program should specify the content to be addressed in the training provided to operators. Initial training should be completed before use of the unit. It is highly recommended that annual refresher training be completed by all operators. The responsible person must maintain records for all operators' training.

### **Personnel Exposure Monitoring (Dosimetry)**

Personnel monitoring devices shall be issued to any individual who is likely to receive more than 10% of the permissible dose limit set forth in the Louisiana Rules and Regulations for restricted areas. Documentation of dosimetry requirement exemption must be submitted to the Department for approval. The Department will accept documentation from the manufacturer to meet this requirement. Records of approval for dosimetry exemption must be maintained at the facility.

Information and forms regarding radiation requirements are available on our website at <https://www.deq.louisiana.gov/page/radiation> or can be requested from the Department of Environmental Quality Radiation Section by contacting Hannah Jones at (225) 219-3778 or [hannah.jones@la.gov](mailto:hannah.jones@la.gov).