

**X-RAY OPERATIONS****9437****(February 2002)**

The purpose of this policy is to insure compliance with all statutory regulations and safety procedures concerning the possession and operation of x-ray equipment. This is to insure that all reasonable precautions are taken to adequately protect the health and safety of personnel and property adjacent to any use or storage of x-ray equipment operated by the Department's Hazardous Devices Technicians.

**DEFINITIONS****9437.1****(February 2002)**

The x-ray equipment shall include the x-ray source generator, x-ray film, film cassettes; monitor badges, processor and other equipment used to transport and effectively operate the x-ray.

**LOCATION OF EQUIPMENT****9437.2****(February 2002)**

X-ray equipment shall be stored and maintained in State vehicles assigned to Hazardous Devices Technicians. At all times State vehicles shall be secured and locked to insure the security of the equipment stored inside it when not in use.

**AUTHORIZED PERSONNEL****9437.3****(February 2002)**

Personnel authorized to operate x-ray equipment shall be limited to trained personnel and trained Hazardous Devices Technicians from other agencies, when working directly with Hazardous Devices Technicians.

**PROCEDURES****9437.4****(February 2002)**

Operation of any x-ray equipment shall be in accordance with the equipment manufacturer's operating instructions and/or within the accepted procedures as taught by the FBI Hazardous Devices School. The equipment is to assist Hazardous Devices Technicians in determining the contents of items possibly containing explosive materials. The x-ray equipment is portable and will be transported to the location of suspected devices.

It is the responsibility of the Hazardous Devices Technician to take into consideration the safety of all personnel when operating the x-ray equipment. The area within 180 degrees of the front of the x-ray equipment shall be cleared of all personnel for 100 feet, and 25 feet to the rear.

**PERSONNEL MONITORING**  
(February 2002)

9437.5

1. Film Badges

- X-ray exposure film badges will be supplied to each Hazardous Devices Technician. A Hazardous Devices Technician will always wear a badge during any possible exposure to radiation. This badge will be identified as Badge #1 and will have the full name of the Hazardous Devices Technician on it. This badge shall be attached to the outer clothing of the Hazardous Devices Technician at or near neck level. This badge shall not be stored with the x-ray equipment or in direct sunlight.
- The monitor badge will be housed with the x-ray equipment during storage. It is identified as Badge #2 with the Hazardous Devices Technician's first initial and last name. The exposure records will be analyzed on a monthly basis. Should there be an unusual circumstance of exposure, Hazardous Devices Technicians will notify their supervisors immediately and will submit the exposed film for processing to the testing laboratory. Envelopes will be provided to all Hazardous Devices Technicians for the submittal of this film.
- All personnel assisting with x-ray operations will wear a personal film badge.

2. Monthly testing

- It will be the responsibility of each technician to replace the film in the two badges monthly. This film must be submitted to the testing laboratory in the envelopes provided within three days after receiving new film.
- A file will be maintained with each Hazardous Devices Technician Supervisor of all exposure records received from the testing laboratory in addition to any possible exposure received by each technician.
- In the event of radiation exposure the equipment causing the exposure will be examined for defects, and removed from service if needed.

3. Exposure to radiation

- Personnel, who had been exposed to any possible x-ray radiation, will immediately notify their supervisor.
- The supervisor will contact the nearest Radiological Health Section of the California Department of Health Services explaining the circumstances

surrounding the exposure. The directions given by the Radiological Health Section will be followed.

- The exposed individual and the supervisor, based upon the guidance provided by Health Services, will take whatever action necessary to obtain appropriate medical attention for the exposed individual. The supervisor shall comply with reporting requirements of the California Radiation Control Regulations, Title 17. Whenever any medical action is necessary, the State Fire Marshal will be notified.
- The Supervisor and the exposed individual shall conduct an investigation to determine, if possible, the date, time, and cause of the individual's exposure. The supervisor shall prepare a written report of the investigation. Copies will be placed in the individual's exposure file, and when appropriate, to the Department of Health Services.

#### **STATE REGISTRATION AND INSPECTION**

**9437.6**

(February 2002)

X-ray equipment maintained for use by the Department shall be registered with the Radiological Health Section of the California Department of Health Services, at the time of acquisition. The equipment shall be subject to inspection by State Health Services. State Health Services will be promptly notified whenever x-ray unit is permanently removed from service.

#### **EQUIPMENT USE RECORDS**

**9437.7**

(February 2002)

X-ray equipment shall be maintained with a written record of all incidents surrounding each use, i.e., location, pulses, operator, etc.; the manufacturer's operating manual, state registration, inspection records, and maintenance log will be kept current. The responsible Hazardous Devices Technician will maintain these records.

#### **EXCEPTIONAL USE**

**9437.8**

(February 2002)

Any non-standard use of the x-ray equipment (homicide investigation, evidence location, structural examinations, etc.) shall only be done upon the approval of the Hazardous Devices Technician's supervisor, and then shall be done in accordance with the all safety standards.

(see next section)

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(see Forms or Forms Samples)