

NOTICE

TO: Employees & students who are required to wear x-ray dosimeters.

FROM: O L F K H O O H 7 D \ O R U, Director
Radiation Safety Office
5795 USA Drive N; CSAB 330
Mobile, AL 36688

FAX: 460-6068

SUBJECT: State requirements regarding personnel exposure at two different institutions.

Regulations require institutions to monitor and record personnel radiation exposures of employees and students who might receive ten percent of the maximum allowable limit or in a room with a 100-mrem-per-hour field of radiation (such as when a fluoroscopy beam is energized). An employee or student's occupational exposure is the sum of all occupational sources. Therefore, if you have a secondary employer, the Radiation Safety Office will communicate with them to share exposure values. This will satisfy the requirement for both facilities.

To implement this procedure, we must know if you are employed elsewhere and if so, by whom. Please notify us at 460-7063.

MEMORANDUM

TO: All new employees & students working with radiation.

FROM: O L F K H O O H 7 D \ O R U, Radiation Safety Officer

SUBJECT: Previous Occupational Radiation Exposures

Please complete and return the statement below to CSAB 330.

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During the immediate past calendar quarter, have you received an occupational dose in excess of 25% of the applicable standards? Yes No .  
(If you haven't been around any radiation or have never worn a dosimeter, answer "No".)

| Date | Name | Title | Facility / Department |
|------|------|-------|-----------------------|
|------|------|-------|-----------------------|



## PROCEDURE FOR PERSONNEL MONITORING

The Alabama Department of Public Health's Department of Radiation Control is the regulatory Agency for radiation exposure in Alabama. Their annual regulatory dose limits are:

|                                                                                                                                                                                                                                                           | Effective Dose Equivalent |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|
|                                                                                                                                                                                                                                                           | Traditional Unit (Rem)    | SI Unit of Sieverts (Sv) |
| 1. Whole body, Head, and Trunk<br>Active blood-forming organs, and Gonads                                                                                                                                                                                 | 5 Rem (5,000 millirem)    | 0.05 Sv (50 milliSv)     |
| 2. Eyes                                                                                                                                                                                                                                                   | 15 Rem                    | 0.15 Sv                  |
| 3. The dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a "declared pregnant woman"***<br>A second individual monitoring device, worn at the abdomen under the lead apron, is required for a declared pregnant woman. | 0.5 Rem                   | 0.005 Sv (5 mSv)         |
| 4. Members of the public                                                                                                                                                                                                                                  | 0.1 Rem                   | 0.001 Sv (1 mSv)         |
|                                                                                                                                                                                                                                                           | Shallow Dose Equivalent   |                          |
| 5. The dose to skin or to any extremity including the head but not the eyes.                                                                                                                                                                              | 50 Rem                    | 0.5 Sv                   |

\*\* "Declared pregnant woman" means a woman who voluntarily informed the radiation safety officer, in writing, of her pregnancy and the estimated date of conception. Such declarations may be made in confidence. According to the US Supreme court, pregnancy declarations are not mandatory.

The maximum whole body exposure of individuals under 18 years of age must be limited to 10% of the annual occupational dose limits specified for adult workers. Prior to starting work in a radiation area all new occupationally exposed personnel shall sign a form indicating if they have or have not received an occupational dose in excess of 10 % of the applicable limits. The badge shall be worn on the collar outside of any lead garments, if applicable. If lead aprons or shields are used, a declared pregnant woman must wear a second dosimeter under those protective garments.

If we suspect that any body part might receive a higher dose than the above listed limits, a second dosimeter or ionization chamber (to be interpreted daily) shall be issued. Extremity dosimeters shall be worn on the wrist or hand that receives the greater amount of exposure.

Personnel monitors shall be provided to each individual who enters a restricted area under such circumstances that they receive, or may receive, a dose in excess of 10 percent of the listed applicable limits OR if they are in a room with a radiation field of 100 milliroentgens per hour.

All personnel who are issued a personnel dosimeter are responsible and accountable for wearing it at the appropriate times and returning it as instructed in a timely manner.

## PROCEDURE FOR PERSONNEL MONITORING (continued)

The Radiation Safety Office shall be responsible for the distribution and collection of dosimeters on a routine basis. The Radiation Safety Office shall maintain a supply of dosimeters to replace those lost and those needed for visitors, new users, and temporary users.

Normally, external radiation exposure shall be determined from a dosimeter worn by the individual. Exposure from internal emitters shall be determined from measurement of biological samples and/or external counting. The required method of monitoring may be reviewed and changed at any time by the Radiation Safety Officer.

The normal method of determining exposure to alpha or weak beta emitters shall be through measurements of biological samples from the exposed individual. Such samples (e.g., urine, feces, or blood) shall be submitted to the Radiation Safety Office for analysis.

If there is a suspected accidental intake, ingestion, or skin puncture involving radionuclides, the Radiation Safety Office must be notified immediately.

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## PERSONNEL MONITORING RECORD

Dosimeter# \_\_\_\_\_

Office use only

In order to maintain current and update personnel monitoring records, the following information is needed:

NAME: LAST \_\_\_\_\_ FIRST \_\_\_\_\_  
MIDDLE \_\_\_\_\_ MA, D (N) \_\_\_\_\_

DATE OF BIRTH: \_\_\_\_\_ , \_\_\_\_\_  
Month Day Year

SOCIAL SECURITY NUMBER: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

The Alabama Health Department requires that when a lead apron is worn and only one dosimeter is available, the dosimeter shall be worn on the collar outside the lead apron.

Have you had any formal Radiation Safety Training Courses, other than the University of South Alabama, that can be documented? YES \_\_\_\_\_ NO \_\_\_\_\_

Have you, prior to working here at USA, ever been monitored for radiation exposure (Film Badge, Ionization Chamber, TLD, etc.)? YES \_\_\_\_\_ NO \_\_\_\_\_  
*If yes, complete the following:*

1. Institution where monitored: \_\_\_\_\_

Address of same: \_\_\_\_\_

Period of Employment: \_\_\_\_\_ To \_\_\_\_\_

2. Institution where monitored: \_\_\_\_\_

Address of same: \_\_\_\_\_

Period of Employment: \_\_\_\_\_ To \_\_\_\_\_

3. Institution where monitored: \_\_\_\_\_

Address of same: \_\_\_\_\_

Period of Employment: \_\_\_\_\_ To \_\_\_\_\_

4. Institution where monitored: \_\_\_\_\_

Address of same: \_\_\_\_\_

Period of Employment: \_\_\_\_\_ To \_\_\_\_\_

# UNIVERSITY OF SOUTH ALABAMA

COLLEGE OF MEDICINE

RADIATION ( ) Tj -0.656 Tm ( ) Tj -10.0.004 q -Tw 3 TrNE

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