



DEPARTMENT OF THE ARMY  
 U. S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES  
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 FORT DETRICK, MARYLAND 21702-5011

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Branch 2

January 11, 2012

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Ms. Betsy Ullrich  
 Licensing Assistant Section  
 U.S. Nuclear Regulatory Commission, Region 1  
 475 Allendale Road  
 King of Prussia, Pennsylvania 19406-1415

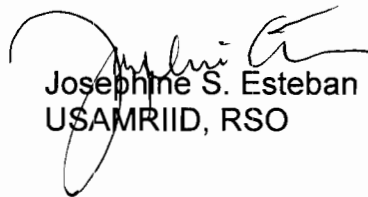
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Dear Ms. Ullrich:

As you requested, enclosed are appendices from United States Army Medical Research Institute of Infectious Diseases (USAMRIID) Regulation 385- 11. The appendices explained the criteria that we use to approve new users of licensed materials, and new uses of licensed material.

For additional information and questions, please call me at 301-619-4626 or email Josephine.Esteban@us.army.mil.

Sincerely,

  
 Josephine S. Esteban  
 USAMRIID, RSO

Enclosure

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Appendix B

Initial Qualification of Radiation Worker(s), Approval of Technician(s), Trainee(s),  
Co-worker(s), X-ray and Irradiator Operator(s)

1. Initial qualification of radiation worker(s):

a. The supervisor of the individual will request that the individual be added to the USAMRIID Authorized Radiation Workers List.

b. The Radiation Safety Officer will assure that a USAMRIID Form 32, a DD Form 1952, and a history of prior occupational exposure are complete and a file established for each individual listed in the Authorized Radiation Workers List.

c. The individual will be required to take the introductory USAMRIID Radiation Course to establish qualification to utilize ionizing radiation.

d. The individual will be required to take the annual USAMRIID Radiation Course to maintain their qualification to utilize ionizing radiation.

e. A certificate will be issued by the RSO to the individual and a photocopy of this certificate will be placed in the individual's radiation exposure file located in the Radiation Protection Office.

2. Initial approval of technician(s):

a. The individual will be a qualified radiation worker.

b. The individual will take the IRCC approved Introduction to Radiation Course. This is a one-time requirement.

c. A co-worker will recommend the individual for inclusion on the Authorized Radioisotope Users List.

d. A co-worker's recommendation will include the respective active protocol(s) on which the technician will work and be routed through the PRU and the Division Chief.

e. After concurrence of the PRU and Division Chief, the RSO will approve the addition of the individual as an authorized radioisotope user. If the individual is disapproved, the RSO will inform the co-worker as to reason for disapproval and corrective action(s) required for obtaining approval.

f. The RSO will notify the individual, co-worker, PRU, and Division Chief that the authorization to use radioisotopes has been approved.

Appendix B (continued)

3. Initial approval of trainee(s):

- a. The individual will be a qualified radiation worker and meet the training, recommendation, and approval requirements for a technician.
- b. The individual will be approved by the IRCC as a trainee.

4. Initial approval of Co-worker(s):

- a. The individual will be a qualified radiation worker and meet the training, recommendation and approval requirements for a trainee.
- b. The individual will be approved by the IRCC as a co-worker.

5. Initial qualification of X-ray personnel:

- a. The supervisor of the individual will request that the individual be added to the USAMRIID Authorized Radiation Workers List as an x-ray operator.
- b. The RSO will assure that Form 32, Form DD 1952 and history of prior occupational exposure are completed.
- c. The individual will be required to take the introductory USAMRIID Radiation Course for X-ray Use to establish qualification to utilize ionizing radiation.
- d. The individual will be required to take the annual USAMRIID Radiation Course for X-ray Use to maintain their qualification to utilize ionizing radiation.

6. Initial qualification of irradiator operator(s):

- a. The Division Chief will recommend the individual to the RSO.
- b. The individual will complete five (5) irradiation "under instruction" runs monitored by the RSO or ARSO.
- c. At the discretion of the RSO, an oral or written examination may be administered during the fifth irradiation "under instruction" run.
- d. The individual will be approved by the IRCC as an "Authorized Irradiator Operator".

Appendix B (continued)

e. The individual will be required to attend the annual USAMRIID Radiation Training or an annual briefing on irradiator operation (provided by the RSO) to maintain their qualification to operate the irradiator(s).

f. The monitored runs and areas attributable to training will be documented.

g. A certificate will be issued by the RSO to the individual and a photocopy of this certificate will be placed in the individual's radiation exposure file located in the Radiation Protection Office.

Appendix C

Form DD 1952  
(Page 1 of 2)

DOSIMETER APPLICATION AND RECORD OF OCCUPATIONAL RADIATION EXPOSURE						
<i>Print legibly or type all information requested. See Privacy Act Statement on reverse.</i>						
1. FULL NAME (Last, First, Middle)		2. DATE OF BIRTH (YYMMDD)		3. SOCIAL SECURITY NUMBER		
4. DUTY SECTION (Dept., Ward, Unit, etc.)		5. JOB TITLE		6. DUTY PHONE		
7. PAY GRADE CIVILIAN      MILITARY		8. HAVE YOU WORN A DOSIMETER ISSUED BY THIS COMMAND IN THE PAST? <input type="checkbox"/> YES <input type="checkbox"/> NO		9. DATE OF RADIATION PHYSICAL (YYMMDD)		
10. DUTY STATUS <input type="checkbox"/> PERMANENT <input type="checkbox"/> TRANSIENT 8 WEEKS OR LESS		11. IF TRANSIENT SHOW MAILING ADDRESS (street address, city, state, zip code) OF LOCATION OF HEALTH RECORDS				
<b>EXPOSURE INFORMATION (ITEMS 11 THROUGH 20 FOR HEALTH PHYSICS USE ONLY)</b>						
11. CLASSIFICATION OF EXPOSURE <input type="checkbox"/> EXTERNAL <input type="checkbox"/> NEUTRON <input type="checkbox"/> INTERNAL						
12. BADGES REQUIRED <input type="checkbox"/> WRIST <input type="checkbox"/> WHOLE-BODY <input type="checkbox"/> NEUTRON      13. TLD REQUIRED <input type="checkbox"/> WRIST <input type="checkbox"/> WHOLE-BODY <input type="checkbox"/> FINGER						
14. BIOASSAYS REQUIRED WHOLE-BODY COUNT      THYROID UPTAKE      URINALYSIS      FREQUENCY <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> QUARTERLY <input type="checkbox"/> ANNUALLY						
<i>GIVE DATES FOR ITEMS 15 THROUGH 20 (YYMMDD)</i>						
15. DOSIMETER(S) ISSUED		16. DD FORM(S) 1141 INITIATED		17. DOSIMETER(S) DISCONTINUED		
18. LAST DOSIMETER(S) RETURNED		19. LOCATOR CARD TO HEALTH RECORD		20. DD FORM(S) 1141 TO MEDICAL RECORDS		
<b>OCCUPATIONAL EXPOSURE HISTORY</b>						
NOTE: This section only applies to the individual who has worked with radiation-producing devices or radioisotopes in a permanent status. List only those employers for whom you worked with radiation.						
NAME OF EMPLOYER	ADDRESS (street address, city, state, zip code)	FROM		TO		Do not write in this space
		YR	MO	YR	MO	
TOTAL EXPOSURE DATA						
REMARKS						

## Appendix C (continued)

## Form DD 1952

PRIVACY ACT STATEMENT  
DATA REQUIRED BY THE PRIVACY ACT OF 1974  
(5 USC 552a)

1. TITLE OF FORM: Dosimeter Application and Record of Occupational Radiation Exposure.
2. PRESCRIBING DIRECTIVE: AR 40-14 and DLAR 4145.24.
3. AUTHORITY: 5 USC 301 - Departmental Regulation; 10 USC 1071, Medical and Dental Care, Purposes; 42 USC 2073, 2093, 2095, 2111, 2133, 2134, 2201(b), and 2201(c). The authority for soliciting the social security number is 10 CFR 20; 44 USC 3101 - Record Management by Agency Heads, General Duties.
4. PRINCIPAL PURPOSE(S): To establish qualification of personnel monitoring and document previous exposure history. The information is used in the evaluation of risk of exposure to ionizing radiation or radioactive materials. The data permits meaningful comparison of both current (short-term) and long-term exposure to ionizing radiation or radioactive material. Data on your exposure to ionizing radiation or radioactive material is available to you upon request.
5. ROUTINE USES: The information may be used to provide data to other Federal agencies, academic institutions, and non-governmental agencies, such as the National Council on Radiation Protection and Measurement and the National Research Council, involved in monitoring/evaluating exposures of individuals to ionizing radiation or radioactive materials who are employed as radiation workers on a permanent or temporary basis and exposure received by unmonitored visitors. The information may also be disclosed to appropriate authorities in the event the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding.
6. MANDATORY OR VOLUNTARY DISCLOSURE AND EFFECT ON INDIVIDUAL NOT PROVIDING INFORMATION: It is voluntary that you furnish the requested information, including social security number; however, the installation or activity must maintain a completed DD Form 1141 on each individual occupationally exposed to ionizing radiation or radioactive material as required by 10 CFR 20, 29 CFR 1910.96 and AR 40-14/DLAR 4145.24. If information is not furnished, individual may not become a radiation worker. The social security number is used to assure that the Army/Agency has accurate identifier not subject to the coincidence of similar names or birthdates among the large number of persons on whom exposure data is maintained.

STATEMENT

Under the provisions of 10 CFR 19.13, 29 CFR 1910.96 and the Privacy Act of 1974, I hereby authorized the release of, and request that all of my radiation exposure records be furnished to appropriate authorities in accordance with the "Routine Uses" portion of the above Privacy Act Statement. As a radiation worker, I have been provided instructions in radiation protection as required by 10 CFR 19.12 and 29 CFR 1910.96. As a female radiation worker, I have been informed of the biological effects and the risks from ionizing radiation on the embryo-fetus and received a copy of NRC (Nuclear Regulatory Commission) guide 8.13. I will contact my supervisor or the radiation protection officer if I have any questions. I hereby certify that the exposure history listed on the obverse is correct and complete, to the best of my knowledge and belief. I have read and understand the above Privacy Act Statement.

\_\_\_\_\_  
Date (YYMMDD)

\_\_\_\_\_  
Signature of Applicant

Appendix D

USAMRIID Form 32  
(Page 1 of 2)

TRAINING AND EXPERIENCE  
OF AUTHORIZED RADIOISOTOPE USERS

1. Name of the Authorized User (Last, First, MI)		Rank/Grade	Organization	Division	Bldg./Room #
2. FORMAL EDUCATION Higher Education Institutions Attended		HIGHEST ACADEMIC DEGREE ATTAINED Type of Program Pursued and Dates of Attendance			
		Degree, Diploma, or Certificate Received and Date			
a. _____		_____			
b. _____		_____			
c. _____		_____			
d. _____		_____			
3. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES					
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING (include course title if known) B	TYPE AND LENGTH OF TRAINING			
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D		
a. RADIATION PHYSICS AND INSTRUMENTATION					
b. RADIATION PROTECTION					
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY					
d. RADIATION BIOLOGY					
e. RADIOPHARMACEUTICAL CHEMISTRY					
4. EXPERIENCE WITH RADIATION (Actual use of Radioisotopes) (Sealed or unsealed source)					
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE	

USAMRIID Form 32 (dated 6 May 1988)

Appendix D (continued)

USAMRIID Form 32  
(Page 2 of 2)

4. EXPERIENCE WITH RADIATION (Actual use of Radioisotopes) (Sealed or unsealed source) (Continued)				
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

5. EXPERIENCE WITH RADIATION PRODUCING DEVICES (X-ray, Irradiators, etc.)			
DEVICE	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

6. CERTIFICATION:

I certify that the information provided hereon is true and complete to the best of my knowledge.

\_\_\_\_\_

(Date signed) (Signature of Applicant)



Appendix E

Procedure for Approval of New Research Protocol(s) for Radioisotope Usage

1. Approval process for a new Protocol for Radioisotope Usage (USAMRIID Form 35).

a. The co-worker shall review protocol(s) to be submitted in their area of responsibility.

b. A separate protocol will be submitted for each radioisotope. Note: All co-worker(s), trainee(s) and technician(s) will be current, qualified radiation worker(s) and authorized radioisotope user(s).

c. The proposed protocol will include the following information:

(1) Radioisotope.

(2) Beginning and ending dates (maximum of three years).

(3) Maximum amount (mCi) of reagent to be used per experiment.

(4) Maximum amount (mCi) of reagent to be maintained in inventory.

(5) Maximum amount (mCi) to be held as reagent, radioactive research material and radioactive waste.

(6) Building and room designations for all work and storage locations.

(7) A summary of the research procedure.

(8) Statements addressing handling, labeling, transportation, room survey(s), animal usage (if applicable) and adherence to the As Low As Reasonably Achievable (ALARA) policy will be incorporated in the body of the form. Note: research protocol number and isotope usage number will be provided by the Radiation Safety Officer (RSO).

d. The co-worker will submit the new protocol to the division principal radioisotope user (PRU).

e. After review and concurrence by the PRU, the new protocol will be forwarded to the Division Chief.

f. After review and concurrence by the Division Chief, the new protocol will be forwarded to the RSO.

Appendix E (continued)

g. After review and concurrence by the RSO, the new protocol will be forwarded to the Ionizing Radiation Control Committee (IRCC) Chairman.

h. All new protocol(s) will be approved by the IRCC.

i. A photocopy of the signed protocol will be provided to the co-worker and respective PRU for their records.

2. Interim approval (not to exceed 120 days) of new protocol(s) may be granted by the RSO and IRCC Chairman.

a. Interim approval(s) may be granted for protocol(s) that have completed steps 1a. through 1g above.

a. Interim approval(s) will not be extended beyond the initial 120-day period.

b. A memorandum, signed by the RSO and IRCC Chairman, will be provided to the co-worker and PRU to indicate interim approval.

c. Formal approval of the new protocol will occur at the next IRCC meeting.