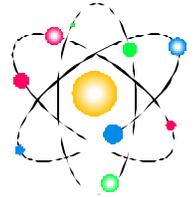




**WPAFB RADIATION SAFETY OFFICE**  
**88 ABW/EMB**  
**Wright-Patterson AFB, OH 45433-5000**  
(DSN 787-2010, commercial 937-257-2010)



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**AUDIT REPORT**

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**PERMITTEE:** \_\_\_\_\_

**USAF PERMIT NO.:** \_\_\_\_\_

**EXPIRATION DATE:** \_\_\_\_\_

**PERMIT RADIATION  
SAFETY OFFICER:** \_\_\_\_\_

**DATE OF AUDIT:** \_\_\_\_\_

**AUDIT PERFORMED BY:** \_\_\_\_\_

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**SUMMARY:**

\_\_\_\_\_ The permit was found to be in compliance with rules and regulations of the Nuclear Regulatory Commission, U.S. Air Force, and WPAFB.

\_\_\_\_\_ The permit was found to be in violation but corrective action was taken at the time of the audit. The following item(s) were corrected:

\_\_\_\_\_ The permit was found to be in violation and the following item(s) need correction:

**COMMENTS/RECOMMENDATIONS:**



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**1. MANAGEMENT and PROGRAM**

a. same as in permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1101
b. formal radiation protection program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2102
c. ALARA program				10 CFR 30.34
- written documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AFI 40-201
- annual review conducted _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. permit documentation available including referenced documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. incident certification letters signed by permittee and RSO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. briefed annually by RSO _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

**2. FACILITIES and STORAGE**

a. facilities as described	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1801
b. radiation/storage areas secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1802
c. constant surveillance in unrestricted area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T.O. 00-110N-3

comments

**3. USERS AND INSTRUCTION TO WORKERS**

a. users are as named on permit (refer to end of report)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 19.12
b. initial radiation safety given	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. personnel the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. annual refresher training conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
date of last session _____				
e. ancillary persons trained commensurate with work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**4. DOSE ASSESSMENT and PERSONNEL MONITORING**

a. persons adequately monitored (>10% of limits)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 19.13
b.. exposures within limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1502
c. prior cumulative occupational doses obtained/attempted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2104
d. exposure data supplied to workers annually	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AFI 48-125
e. TLD's properly stored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Exchange frequency: \_\_\_\_\_ Review period: \_\_\_\_\_

Average exposure in period:                      whole body \_\_\_\_\_ mrem                      ring \_\_\_\_\_ mrem

Highest exposure in period:                      whole body \_\_\_\_\_ mrem                      ring \_\_\_\_\_ mrem

comments

**5. EQUIPMENT**

a. equipment appropriate to material on hand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1501
b. adequate number of monitoring equipment available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. survey instrument calibrated at _____ intervals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. calibrated by authorized persons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. equipment functions properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

Instruments for documented surveys are owned and calibrated by WPAFB RSO. Contamination surveys are performed with instruments owned by the permittee.



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**6. MATERIALS**

- |                                                                                         |                          |                          |                          |                |
|-----------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|----------------|
| a. RAM authorized on permit                                                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 20.1904 |
| b. accounted for by inventory                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.34   |
| c. inventory conducted semiannually<br>previous inventory _____<br>last inventory _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.51   |
| d. containers properly labeled                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| e. records maintained                                                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |

comments

**7. RECEIPT OF RADIOACTIVE MATERIAL**

- |                                                       |                          |                          |                          |                |
|-------------------------------------------------------|--------------------------|--------------------------|--------------------------|----------------|
| a. written procedures of receipt and opening packages | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 20.1904 |
| b. records of receipt available                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 20.1906 |
| c. package survey performed                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.51   |
| d. radiation labels obliterated                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| f. records maintained                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |

comments

**8. TRANSFER AND SHIPPING**

- |                                                       |                          |                          |                          |              |
|-------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------|
| a. RAM properly packaged, marked, and labeled         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 49 CFR 173   |
| b. RAM transferred to authorized recipient            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.41 |
| c. copy of recipient's license or other authorization | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.51 |
| d. records maintained                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 71    |

comments



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**9. LEAK TESTS**

a. sealed sources tested for leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 30.34
b. test are at 6 month intervals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T.O.00-110N-3
previous testing _____				
last testing _____				
c. results in microcuries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. results less than 0.005 $\mu$ Ci	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. proper notification was made if leaking source	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

**10. SURVEY PROGRAM**

a. unrestricted area surveys conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1301
- areas < 2 mrem in any one hour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1302
- areas < 100 mrem in a year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1501
b. storage areas surveyed quarterly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2103
c. waste containers surveyed weekly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2107
d. contamination surveys performed at required intervals _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T.O. 00-110N-3
e. restricted area surveys conducted required intervals _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

**11. GENERAL WORK PROCEDURES**

a. no evidence of smoking, eating, drinking or application of cosmetics in radiation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AFI 40-201
b. no personal items stored in designated restricted areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**12. POSTING**

a. NRC Form 3 (Rev 9-98 or later)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 19.11
b. notice of availability of permit/ license/regulations/procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.1902 AFI 40-201
c. Part 21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. "Caution - Radioactive Material" signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. "Caution - Radiation Area" signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

**13. DISPOSAL**

a. waste properly stored				10 CFR 20.2001
- approved storage location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2108
- packages properly labeled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 30.301
- segregated from biological and chemical wastes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 30.51
- liquid packaged with 2X absorbent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T.O. 00-110N-2
b. authorized methods used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. coordinated with Base RSO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. records maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

comments

**14. INCIDENTS/ACCIDENTS**

a. immediate notification made of loss or theft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2201
b. proper notification of incidents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2202
c. report of overexposure or excessive levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 CFR 20.2203 10 CFR 30.50 AFI 91-204

comments



**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

Criteria	Yes	No	N/A	References
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**15. AUDIT of PROGRAM CONTENT and IMPLEMENTATION**

- |                                   |                          |                          |                          |                |
|-----------------------------------|--------------------------|--------------------------|--------------------------|----------------|
| a. performed at 6 month intervals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| previous audit _____              |                          |                          |                          | 10 CFR 20.1101 |
| last audit _____                  |                          |                          |                          | 10 CFR 20.2102 |
| b. identifies problem areas       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| c. items corrected                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| d. records maintained             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |

comments

**16. RECORDS MAINTENANCE and FORM**

- |                                                   |                          |                          |                          |                |
|---------------------------------------------------|--------------------------|--------------------------|--------------------------|----------------|
| a. original or reproduced copy                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| b. includes pertinent information such as         |                          |                          |                          | 10 CFR 20.2101 |
| stamps, initials, and signatures                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| c. adequate safeguards against tampering and loss | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |
| d. units used are curie, rad, and rem             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                |

comments

**17. OTHER (specify)**

- |                                 |                          |                          |                          |              |
|---------------------------------|--------------------------|--------------------------|--------------------------|--------------|
| a. bioassay program initiated   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |              |
| b. fume hood flow rate adequate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10 CFR 30.34 |

comments





**WPAFB Radiation Safety Office**

Permittee: \_\_\_\_\_

USAF Permit No.: \_\_\_\_\_

**Fume Hood Results**

Instrument Used: \_\_\_\_\_

Calibration: \_\_\_\_\_

Fume Hood: \_\_\_\_\_

Class: \_\_\_\_\_

**BASELINE MEASUREMENT (      )**


Sash Height: \_\_\_\_\_

Width: \_\_\_\_\_

Face Velocity: \_\_\_\_\_

Volume Exhausted: \_\_\_\_\_

**Last Measurement (      )**


Sash Height: \_\_\_\_\_

Width: \_\_\_\_\_

Face Velocity: \_\_\_\_\_

Volume Exhausted: \_\_\_\_\_

(Acceptable exhaust  $\leq$  10% airflow reduction from baseline)