

DATA SHEET

Appendix A    
Appendix B    
Appendix C

DOCKET NO. \_\_\_\_\_

FACILITY U.S. Army, Fort Monmouth INSPECTION NO. 76-01

CITY, STATE FORT MONMOUTH, NEW JERSEY DATE/S 4/12/76 - 4/13/76

SUBJECT - RADIATION SAFETY LICENSE NO/S. See attached

PHONE # FTS 8-341-3000 LOCAL 532-9000

INSPECTOR Slobodien REVIEWER R. McDevitt

TYPE OF INSPECTION:  INITIAL  SPECIAL  ANNOUNCED  
 REINSPECTION  ROUTINE  UNANNOUNCED

DATE OF LAST INSPECTION: 5/17/74

RECOMMENDED DATE, NEXT INSPECTION: May 1978  SPECIAL  ROUTINE

TYPE OPERATION: Military Research and Inventory Control

SCOPE OF OPERATION  SMALL  MEDIUM  LARGE

PRESENTLY CLASSIFIED CAT/PRI E/III; AS OF AMENDMENT NO. 17

NO CHANGES REQUIRED

CHANGES TO CAT/PRI

PER ATTACHED MEMO DATED \_\_\_\_\_

SUMMARY OF FINDINGS

NO NONCOMPLIANCE NOTED  
 591  ROL  OTHER  
 NO SPECIAL PROBLEMS

SEE APPENDIX A FOR NONCOMPLIANCE ITEMS *relie*  
*89-01022+06*  
 SEE APPENDIX B FOR PROBLEM AREAS  
RELATIVE TO \_\_\_\_\_

PERSONS CONTACTED\*

NAME	TITLE	ORG	NAME	TITLE	ORG
1. MR. STANLEY POTTER	R.P.C.		6. J. Weed	RPO/ACT. HEXAGON AREA	
2. Mr. Clifford Watson	RAD TECH		7.		
3. Mr. BART	SAUNTING, RAD TECH		8.		
4.	SP16NAC		9.		
5. JOSEPH CRUCHFELDT	- 3.S.K.C. source operator		10.		

\* MANAGEMENT MEETING ATTENDEES

*inspection items all 60012*  
*See list for individual licenses*  
*specific items of note*  
*RMC*

DEPARTMENT of the ARMY  
 U.S. ARMY ELECTRONICS COMMAND  
 FORT MONMOUTH, NEW JERSEY

08  
 09  
 11

SMM  
 1327

SUB  
 1150

Summary of CURRENT LICENSED ACTIVITIES

as of 4/1/76

LICENSE	Type	PRIORITY	LAST INSP	To be insp 76-01
9-01032-06	Z 3-83 broad byprod.	E/III	5/17/74	yes Potter
9-01032-07	<sup>60</sup> Co irradiators	E/III	5/17/74	yes Potter
9-01032-08	<sup>90</sup> Sr large clock sizes	R/IV	NONE	if time permits OK
9-01032-09	<sup>90</sup> Sr large clock sizes	R/IV	NONE	" " " OK
9-01032-10	<sup>60</sup> Co 125000 Ci irradiation facility	E/III	5/17/74	yes Potter
9-01032-11	<sup>85</sup> Kr 7mc clock sizes	R/IV	NONE	if time permits OK
SNM 1323	<sup>239</sup> Pu THERMIONIC GENERATORS	E/III	5/17/74	yes Potter
NM-1327	<sup>239</sup> Pu <sup>69</sup> Pu clock sources	R/IV	NONE	No OK
IMB-1183	URANIUM THORIUM	E/III	5/17/74	Lic. Active yes close out 74-01 Potter
UB-1150	URANIUM THORIUM CHECK SOURCES	R/IV	NONE	if time permits OK

	<u>INSPECTION ITEM</u>	<u>SOURCE OF INFORMATION</u>	<u>ACCEPTANCE CRITERIA</u>	<u>FINDINGS</u>
P/I 7410	<u>Management Controls</u>	Potter		
.01 .06	Responsibilities; Qualifications Users---RSO---Management		L/C 14 which references document dated <u>4/12/74</u>	adequate, up to date
.02	Internal Audits	Records	L/C as above; 10 CFR 19, 20, 31, 35	Monthly surveys adequate
.04	Inventory Controls; Related Records	observation	L/C 6, 7, 8; 30.41, 30.53	adequate all licensed NOT R/V
	<u>Training</u>			
.07	Qualification, Competence of Instructors  Technical Instruction/Training  Posting of Notices, Lic., AEC-3, etc.  Special Work Permits  Cleaning & Bldg. Maint. Pers.	Employees Watson Crotchet  Employee Interviews	Inspector Judgement  06 license Document dated <u>4/22/74</u> L/C 14, 19.12  19.11  19.12  19.12	all adequate
7415 .01	<u>Inspection History</u>  Corrective action; Previously noted noncompliance		IE letter 5/31/74 for SNB-1183  Pertinent regulations Licensee Letter dated <u>7/26/74</u>	Corrected. No ACTIVITIES SINCE LAST Insp. NO PLANS FOR FUTURE ACTIVITIES

n/c

R.S.O. (Potter) stated that during changing of a  $^3\text{H}$  target on the neutron generator the Johnson  $^3\text{H}$  air "sniffer" in use went off scale. Personnel quickly finished the job (about 2 min) and exited area taking sniffer with them. The Users could not get sniffer to return to an on-scale reading and assumed electronic failure. Individuals then reentered area to complete job. \$

Subsequent urinalysis  $\Rightarrow$   $19 \mu\text{Ci/l}$  on one individual according to Potter. Potter said that because he was informed by the office that performed the bioassay that  $19 \mu\text{Ci/l}$  was not a significant health problem he did not pursue and evaluate air concentration re 20.103.

n/c 20.201(b) re 20.103

~~to 111~~

20.201(b) re sporting requirements  
20.405

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See CIS Radiopharmaceuticals 76-01 for form of the letter

INSPECTION ITEM	SOURCE OF INFORMATION	ACCEPTANCE CRITERIA	FINDINGS
.02 Incidents, accidents, unusual occurrences since last inspection including equipment malfunctions	RPO	20.402; 20.403; 20.405 Inspector Judgement	NONE
.02 Unresolved Items, per list, Problem areas, per previous inspection, evaluation memo.	RPO, RECORDS,	Pertinent regulations Inspector Judgement	NONE
F/I 7420 <u>Uses of Material</u>			
.01 License limitations, re: purpose, personnel, location, etc.	Crotchfield, Watson, Savignac, Potter	L/C 9, 10 et. seq.	ALL USES AS OUTLINED IN LIC.
.01 Scope of program	See notes	Not applicable	
7430 <u>Surveys</u>			
.01 Restricted Areas Unrestricted Areas Extremities OK Airborne Activity, Contamination Trash, Wastes, Burials Liquid and Gaseous Effluents Leak Tests adequate Incoming Packages adequate	possible etc re 3rd in section	20.101 OK 20.105 OK 20.103 See below w/c are noted in file 20.301; 20.304 20.106; 20.303 OK L/C reviews 20.205 OK	See notes Adequate except 20.103 possible etc re 3rd users who check of spec targets
.02 Personnel Monitoring Equip. Records Personnel Exposures - ALAP	RPO Records See notes previous page back	20.202 20.401(a); 20.401(b) 20.1 20.102-10 w/c HPS/MSFV	adequate see note etc re 3rd

INSPECTION ITEM	SOURCE OF INFORMATION	ACCEPTANCE CRITERIA	FINDINGS
7420 <u>Equipment</u>			
.03 Adequacy of instrumentation; fixed & portable meters and systems alarms; warning devices, Calibrations of Instruments	observation	Inspector Judgement 20.203 Qtrly; Inspector Judgement	adequate
<u>Observations/Measurements</u>			
.01 Posting of notices; warning signs, alarms, warning devices		19.11(b), (c), (d); 20.203	adequate
Physical security; housekeeping		20.207; Insp. Judgement	adequate
Radiation levels	INSPECTOR MEASUREMENTS	20.105	good
Wearing of required P.M. devices		20.202	adequate
Breathing Zone Air sampling sys.		20.201(b)	poor/ no 3H, 40 gal drums and bioassays NOT evaluated
Isokinetics, Effluent sampling systems		20.106, 20.301, 20.303	N/A
AP; Contamination controls via ventilation, Hood face velocities, gloveboxes		20.103; 20.106	N/A
Protective clothing; disposable equipment		20.103	N/A

APPENDIX A

NONCOMPLIANCE BACKUP

Facility U.S. Army Electronics Command Insp. No. 76-01

License No. 29-01022-06

BASIS FOR CITATION

*Failure to eval. bioassay data for 3H to determine compliance w 20.103, 20.405 following change of 3H target in reaction generate in June-July 1975. See notes in Data Slats.*

Item # 1  
10 CFR 20.201(b)(2) <sup>20.103</sup>  
L/C \_\_\_\_\_ <sub>20.405</sub>  
\*Class inf

Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

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10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

Item # \_\_\_\_\_  
10 CFR \_\_\_\_\_  
L/C \_\_\_\_\_  
\*Class \_\_\_\_\_

\*(V) Violations; (In) Infraction; (Def) Deficiency; (C) Commitment;  
(Dev) Deviation

- Inspector Comments
- Unresolved Items
- Uncorrected or Repeated n/c
- Unusual Occurrences, Etc.

Facility \_\_\_\_\_ Inspection No. \_\_\_\_\_

License No. \_\_\_\_\_

The next inspector should be aware of the following:



APPENDIX C - SPECIAL CONSIDERATIONS

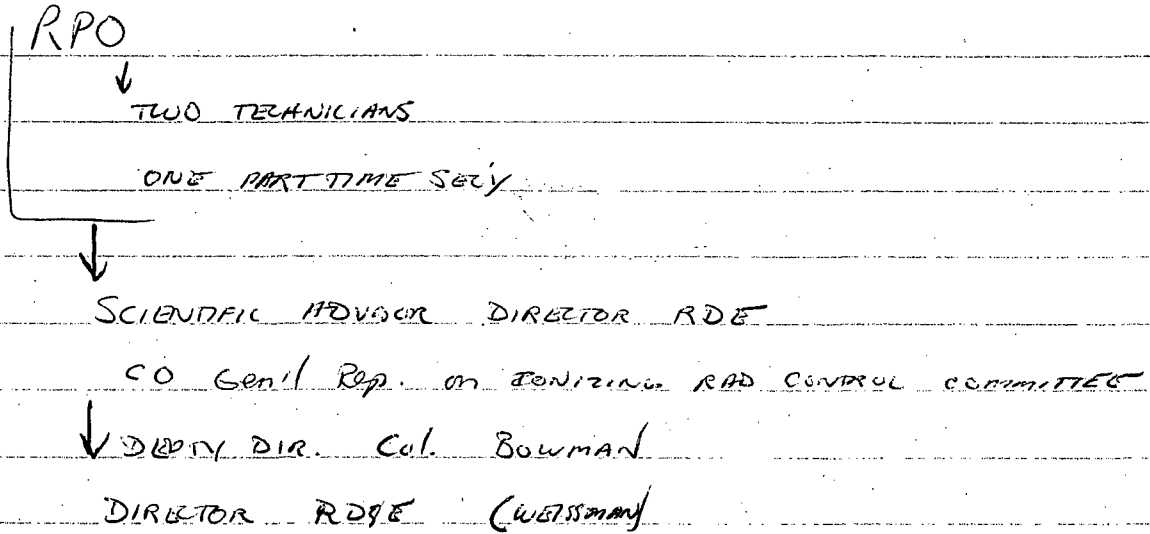
Licensee \_\_\_\_\_

Lic. No. \_\_\_\_\_

Insp. No. \_\_\_\_\_

<u>Inspection Item</u>	<u>Source of Information</u>	<u>Acceptance Criteria</u>	<u>Findings</u>
<p>A) Dose Considerations:</p> <ul style="list-style-type: none"> <li>(1) Lenses of Eyes</li> <li>(2) Extremity Doses - (Rings)</li> <li>(3) Ancillary personnel (Nurses)</li> </ul>		<p>Inspector judgment 20.201(b) ref. 20.101</p>	
<p>B) Teletherapy</p> <ul style="list-style-type: none"> <li>(1) Posting</li> <li>(2) Interlocks</li> <li>(3) 5 year maintenance</li> <li>(4) Malfunctions</li> </ul>		<p>Inspector judgment 20.101; 20.105</p>	
<p>C) Medical</p> <ul style="list-style-type: none"> <li>(1) Authorized Procedures Authorized Materials Authorized Users Authorized Instruments <ul style="list-style-type: none"> <li>(a) Mo<sup>99</sup> breakthru</li> <li>(b) Calibrated as per L/C _____</li> </ul> </li> <li>(2) Leak Tests</li> <li>(3) Sealed Source Inventory</li> <li>(4) Xe133 &amp; others auth. by L/C _____</li> </ul>		<p>35.14, 35.100</p> <p>L/C</p> <p>35.14(b)(5)(i) 35.14(e)(1)(1)</p> <p>35.14(b)(5)(v) 35.14(f)(2)</p> <p>L/C</p>	

I. ORGANIZATION



II SCOPE

ALL USE AUTH BY IONIZING CONTROL COMMITTEE

06 a)  $\gamma$  generator

<sup>3H</sup> 10 Ci targets w/ up to 2 spec 10 Ci targets  
 up to a max of 60 Ci in 6 targets  
 spec targets stored in Evans Area

06 b)  $\beta$  scope

$\mu$ C level <sup>14C</sup>, <sup>147Pm</sup>, <sup>204Tl</sup>, <sup>137Cs</sup>

06 c) <sup>63Ni</sup> e<sup>-</sup> capture detector 2mCi

leak test req semi anal