

LICENSE NO: 06-13514-01

DOCKET NO. (s) 03-01-01891

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ATTACHED

- ☐ Appendix A
☒ Appendix B
☐ Appendix C
☐ Memo

INSPECTION REPORT NO. 03-01

Barton-Dickinson

North Carolina, Lenoir

LICENSEE CONTACT: Wm Case, RSO

Telephone No: 203-824-5487

LICENSE NO: 06-13514-01

CATEGORY E PRIORITY: 3

CATEGORY _____ PRIORITY: _____

CATEGORY _____ PRIORITY: _____

INSPECTION DATE (s): 12/30/83

TYPE OF INSPECTION: ☐ SPECIAL ☐ ANNOUNCED
☒ ROUTINE ☒ UNANNOUNCED
☒ DAYSHIFT
☐ OTHER

SUMMARY OF FINDINGS AND ACTION

- ☐ NO NONCOMPLIANCE, CLEAR 591 ISSUED
☐ NO NONCOMPLIANCE, LETTER
☐ NONCOMPLIANCE, APPENDIX A

- ☒ ACTION ON PREVIOUS NONCOMPLIANCE, APPENDIX B
☐ NONCOMPLIANCE, 591 ISSUED
☐ SUPPLEMENTAL INFO, APPENDIX C

RECOMMENDATIONS
SEE BASIS IN APPENDIX C

☐ CHANGE CATEGORY TO: _____
☒ NEXT INSPECTION DATE: 12/86

☐ CHANGE PRIORITY TO: _____

PERSONS CONTACTED

* Wm R. Case, RSO and Supervisor Sanitation
* Richard C. Cook, Mgr of Bacteriological & Sanitation Services
* Andrew P. Row JOHN Plant Manager

8507130281 850502
PDR FOIA
QIDWANIB4-705 PDR

INSPECTOR: C. Stearns

APPROVED: [Signature]

1/12/84

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INSPECTION PLAN AND REPORT NUMBER _____ Page _____ of _____
Plan Approved: _____ Date: _____
Licensee: _____ License No. _____

Inspection Items	Scheduled for Inspection	Post Inspection Status	Module No.
Management Meeting - Entrance and Exit Interviews (Required)	$\frac{1}{4}$ hr		30703B
Program Requirements, MC 2850 (Required)	$3 \frac{1}{2}$ hrs		77710B
Followup on Noncompliance and Deviations			92702B
Independent Inspection Effort (Required)	$\frac{1}{4}$ hr		92706B
Transportation			86740B

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777108 - Irradiator

AREAS INSPECTED AND FINDINGS

Licensee: _____ License No: _____ Amendment No: _____

INSPECTION ITEMS	CRITERIA	FINDING
1. <u>Organization</u>	Lic Cond _____	Andrew P. Rongy, Jr. Plant Manager ↑ Crock, High Stimulation ↑ Wm Case Spent 8/18 operators.
Management organization?		
Radiation protection organization?		
Scope of program?		
NOTES & REMARKS:	- Irradiation for sterilization performed currently over 2 shifts and a 5-day week.	
2. <u>Licensee Internal Audits</u>	Lic Cond _____	
Scope and frequency?	- approx semi annual by manager	
Management controls?	contin supervision by by RSC	
NOTES & REMARKS:	See also APKC Also reviewed daily, weekly and monthly, to check tests which were maintained regularly	
3. <u>Training and Instructions to Employees</u>	Lic Cond _____	
Training program, scope and frequency, retraining?	Mostly informal	
Required tests administered; scores satisfactory?	but records were maintained	
Instructions to workers?	19.12	
NOTES & REMARKS:	formal training sessions since last inspection (8/82) :- 9/15/82, 2/13/83, 5/27/83, 8/31/83 new operators two Rongy, Jr.	
4. <u>Radiation Protection Procedures</u>	Lic Cond _____	
Operating & emergency procedures implemented?	(partially reviewed)	
Security?	20.207	
NOTES & REMARKS:	- actual area kept locked	

777108 - Irradiator

AREAS INSPECTED AND FINDINGS

Licensee: _____ License No: _____ Amendment No: _____

INSPECTION ITEM	CRITERIA	FINDING
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5. Materials, Facilities and Instruments

Authorized uses and quantities?

Lic Cond C

Restricted areas, posting requirements?

20.203 CSurvey instruments & dosimeters; operable, properly calibrated? *never*

Lic Cond _____

Independent area radiation monitor?

Survey meter used on entering HRA?

NOTES & REMARKS:

dosimeters and Vickers monitor annually
operational survey meter reported
Yes - tested
sometimes sent out but never after calibration with 15 mCi of Cs-137 source in calibration

6. Receipt and Transfer of Materials

Procedures implemented, adequate?

20.205, 71.51

Transfer of byproduct material?

30.41

Control of source material, SNM? *n/a*

40.51, 40.64, 70.42, 70.51, 70.53, 70.54

Records of receipt, transfer, storage, survey and monitoring?

30.51

NOTES & REMARKS:

handled by AECL

7. Control of High Radiation Area

Interlocks, tests, entry control?

20.203(c)(6) "locked"

Action if entry control device fails?

Device to prevent source exposure with individual in chamber? - necessary to stop (and push button) to check

Level control for liquid shield?

Source exposure procedure?

Control of portals (continuous irradiator)?

NOTES & REMARKS:

(not possible to open door with source up)
even shaking the door to attempt to open it disps. source and activates alarm
All controls were demonstrated
also reviewed records of tests of these controls

777108 - Irradiator

AREAS INSPECTED AND FINDINGS

Licensee: _____ License No: _____ Amendment No: _____

INSPECTION ITEM	CRITERIA	FINDING
<u>8. Transportation</u>		
Management controls, audits?		
Selection of packaging?	49 CFR 173.393-5, 10 CFR 71	
Preparation of packages for shipment?	49 CFR 172, 173	(AECL handles shipment of sources to and from licensee for some exchange)
Filling, loading, closing, liquids?	49 CFR 172, 300	
Markings & labelling?	49 CFR 172.403, 402	
Monitoring?	49 CFR 173.393	
Shipping papers, loading & placarding of vehicles?	49 CFR 172.200	
Reports of Incidents?		
Examination of packages?		
NOTES & REMARKS:		
<u>9. Personnel Protection- External</u>		
Personnel monitoring control; minimize exposures, control of accumulated dose?	20.101, 20.102, 20.202	Landaua, weekly
Surveys conducted, adequate?	20.20K	- Almost all exposures reported as "H"
Records of monitoring, surveys, disposals?	20.401, Lic Cond _____	An exception was 20 mrem for Pierre, an operator - (he received the exposures operating calibration in last quarter of 1982)
Levels in unrestricted areas?	20.1, 20.105	
NOTES & REMARKS:		
<u>10. Personnel Protection - Internal</u>		
Airborne concentrations in restricted areas?	20.103	
Exposure of minors?	20.104	
Posting of airborne radioactivity areas?	20.203	monitor on ex least
Survey, monitoring, bioassay requirements; records?	20.201, 20.401	an concentrations of ozone as is
Leak tests of sealed sources?	Lic Cond _____	the only potential hazard requiring testing
NOTES & REMARKS:		- 6 Techs - semi annually - GC - records

AREAS INSPECTED AND FINDINGS

Licensee: _____ License No: _____ Amendment No: _____

INSPECTION ITEM	CRITERIA	FINDING
<u>11. Effluent Control, Waste Disposal</u>		
Release of effluents?	20.106	
Waste disposal, proper packaging for shipment?	20.301, 20.303, 20.304, 20.305	n/a?
Procedures, records?	20.401, Lic Cond	
NOTES & REMARKS:		
<u>12. Shipping, Shipping Incidents</u>		
Procedures for pickup, receipt, monitoring of packages?	20.205(b) & (c)	
Incidents, reports, corrective actions?	49 CFR 170-189	none
NOTES & REMARKS:		
<u>13. Notifications and Reports</u>		
To individuals?	19.13	
Overexposures, excessive levels & concentrations, incidents?	20.403, 20.405	none
Personnel exposures and monitoring, termination reports?	20.407, 20.408	n/a?
Theft or loss of licensed material?	20.402	none
NOTES & REMARKS:		
<u>14. Posting of Notices</u>		
Part 20, license & documents, procedures, notice of violations?	19.11(a)	
NRC-37	19.11(c)	
NOTES & REMARKS:		

77710B - Irradiator

AREAS INSPECTED AND FINDINGS

Licensee: _____ License No: _____ Amendment No: _____

INSPECTION ITEM	CRITERIA	FINDING
15. <u>Environmental Monitoring Program</u>	Lic Cond _____	
Implementation of program, scope and frequency as required?		<i>(only environmental concerns ongoing)</i>
Records maintained, reviewed by management?		
NOTES & REMARKS:		
16. <u>Emergency Preparedness</u>	Lic Cond _____	
Procedures available for incidents and accidents?	<i>I did not check that they had were distributed to all individuals</i>	
Training for personnel; coordination with supporting groups and agencies?	<i>n.i.</i>	
NOTES & REMARKS:		
17. <u>Other License Conditions</u>		
NOTES & REMARKS:	<i>We were nonconformant with any license conditions noted — (However, the inspector did not check on all aspects of emergency procedures.)</i>	
	<i>(Inspector did cover, for example, action to be taken if source were raised while some one is inside)</i>	
18. <u>Confirmatory Measurements</u>		
Licensee's surveys verified on sampling basis?	20.105, 20.201	<i>Also see irradiator logbook</i>
Analysis of pool water sample?		
NOTES & REMARKS:	<i>(Levels in control room and in irradiator were far below limits for unrestricted area — (in general, essentially</i>	
NRC Instrument: <u>E-100 FM</u>	Calibration Due Date: _____	<i>B.E.</i>
19. <u>Independent Inspection Effort</u>		
NOTES & REMARKS:	<i>Discussed management controls to ensure procedures were being followed.</i>	

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APPENDIX A - DOCUMENTATION OF NONCOMPLIANCE

Licensee: _____

License No: _____

Reference	Basis for noncompliance
Report item _____	
10 CFR _____	<i>none</i>
Lic Cond _____	
Type n/c _____	
Report item _____	
10 CFR _____	
Lic Cond _____	
Type n/c _____	
Report item _____	
10 CFR _____	
Lic Cond _____	
Type n/c _____	
Report item _____	
10 CFR _____	
Lic Cond _____	
Type n/c _____	
Report item _____	
10 CFR _____	
Lic Cond _____	
Type n/c _____	

APPENDIX B - LICENSEE ACTION ON PREVIOUS INSPECTION FINDINGS

Licensee: _____

License No.: _____

Identification and summary of action taken	Status
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Report No: <u>82-1</u> Type n/c: <u>Cond 13-A</u> Describe: <u>Leak tests of "new"</u> Action taken: <u>15 mA Co-60 source for calibration</u>	<u>OPEN</u>
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These leak tests - (as well as others) - since annually. CLOSED
(There is now a large status board on wall of control area as a reminder to perform these and other tests when due)

Report No: <u>IA 81-24</u> Type n/c: <u>2</u> Describe: _____ Action taken: <u>Report 81-01</u>	<u>OPEN</u>
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This was completed before the end of 1982, according to Crook

in the installation of additional sprinkler system for fire suppression

Report No: _____ Type n/c: _____ Describe: _____	<u>OPEN</u>
Action taken: _____	<u>CLOSED</u>

Report No: _____ Type n/c: _____ Describe: _____	<u>OPEN</u>
Action taken: _____	<u>CLOSED</u>

Report No: _____ Type n/c: _____ Describe: _____	<u>OPEN</u>
Action taken: _____	<u>CLOSED</u>

Report No: _____ Type n/c: _____ Describe: _____	<u>OPEN</u>
Action taken: _____	<u>CLOSED</u>

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APPENDIX C - SUPPLEMENTARY INFORMATION

Licensee: _____

License No: _____

- ☐ Uncorrected/repeated noncompliance
☐ Unusual occurrence, conditions, etc
☐ Basis for change of Category or Priority

- ☐ Unresolved items
☐ Inspector's comments

Records — altho not yet perfect — have significantly improved. An aid towards keeping requires tests, audits, etc up to date was a large status board, ^{now} on the wall of the control area. This was a large chart with due dates; person responsible for performing them, etc. — and space to enter the dates each was accomplished.