

Licensee: Union Carbide

License No.: 47-00260-02

Inspection Items	Scheduled for Inspection	Post-inspection status	Module No.	766 Time Info
Management meeting - Entrance and Exit Interviews (Required)			30703B	✓
Initial Management Meeting Program requirements, MC 28 (Required)			77710B	✓
Licensee Event Followup			92700B	
Followup on Inspector-identified problems			92701B	
Followup on Noncompliance and Deviations			92703B	
IE Bulletin/Immediate Action Letter Followup			92703B	
Followup on Headquarters Requests			92704B	
Followup on Regional Requests			92705B	
Independent Inspection Effort (Required)			92706B	✓
Inspector Dispatched to Site			93700B	
Followup on Significant Event Occurring During Inspection			93701B	
Closeout Inspection and Survey			83890	
Inspection of Transportation Activities			86740	
Licensed Materials Programs			87100	
RadWaste Management/Waste Generators			84850	

77710B - Industrial-Academic

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide License No.: 47-00260-02 Amendment No.: 40

INSPECTION ITEMS	CRITERIA	FINDING
1. <u>Organization</u>	Lic Cond <u> </u>	<u>OK</u>
Management organization.	<i>Mike Bacon, PSD only change since last inspection</i>	
Radiation protection organization.		
Radiation Safety Committee	<i>James Boggess, Rad. Saf. Tech.</i>	
Authorized Users <u>3</u>		
NOTES:		
<i>One time experiment with H-3 completed.</i>		
<i>Only use now is sealed sources</i>		

2. <u>Licensee internal audits</u>	Lic Cond <u> </u>	<u>OK</u>
Scope and frequency.		
Management controls.		
ALARA Audits		
Radiation Safety Committee Meetings		
Minutes Recorded		
NOTES:		
<i>Radiation Safety Committee meets quarterly. Minutes reviewed.</i>		
<i>Current audits by PSD not documented.</i>		
<i>Industrial Hygiene will begin auditing Program in 1986</i>		

AREAS INSPECTED AND FINDINGS

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INSPECTION ITEMS	CRITERIA	FINDING
3. <u>Training and instructions to employees</u>	Lic Cond <u> </u>	<u>OK</u>
Training program, scope and frequency, retraining. Conducted by who?	Lic Cond <u> </u>	
Required tests administered; scores satisfactory.		
Instructions to workers.	§19.12 R.G. 8.13 R.G. 8.27 R.G. 8.29	

NOTES:

*R.S.O. conducts training for site.
R.S.O. conducts training class, next in January 1986, for other R.S.O.'s at other Union Carbide facilities 36 hour course.*

4. <u>Radiation protection procedures</u>	Lic Cond <u> </u>	<u>OK</u>
Operating & emergency procedures implemented. ✓	Lic Cond <u> </u>	
Manufacturer's instructions for devices Used ✓		
Protective clothing used <i>None required</i>		
Contamination control procedures <i>all sealed sources</i>		
Access control "High Radiation Area" ✓	§20.203(c)	
Security ✓	§20.207	

NOTES:

*On-site fire brigade.
Only work currently is with sealed sources.
Most of the sealed sources are in storage*

AREAS INSPECTED AND FINDINGS

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INSPECTION ITEMS	CRITERIA	FINDING
5. <u>Materials, facilities, and instruments</u>		<u>OK</u>
Authorized uses and quantities. ✓	Lic Cond _____	
Restricted areas, posting requirements. ✓	§20.203	
Survey instruments & dosimeters; operable, ✓ properly calibrated.	Lic Cond _____	
Fixed monitors (operable and calibrated) <i>N/A</i>		
NOTES: <i>Licensee calibrate instruments. Current sealed sources in use are (5) Co-60 ; 1 Am-Be; (9) Ni-63 Licensee also installs gases at other Union Carbide facilities</i>		
6. <u>Receipt and transfer of materials</u>		<u>OK</u>
Procedures implemented, adequate. ✓	§20.205, Lic Cond _____	
Transfer of byproduct material. ✓	§30.41	
Labeling and packaging. ✓	§71.5, (49CFR 170-189)	
Records of receipt, transfer, storage, ✓ survey, and monitoring	§30.51, Lic Cond _____	
Procurement procedures ✓	Lic Cond _____	
Inventory control ✓	Lic Cond _____	

NOTES:

Computerized inventory every 6 months with hands on accountability.

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INSPECTION ITEMS	CRITERIA	FINDING
7. <u>Personnel protection - external</u>		<u>OK</u>
Personnel monitoring control; minimize exposures, control of accumulated dose	✓ §20.101, §20.102, §20.202, §20.104	
Dosimetry supplier, frequency of exchange, type dosimeters (W. B. or extremity)	✓ Lic Cond <u>Lucindauer, monthly</u>	
Avg. exposures (W.B. and extr.)	<u>"m"</u>	
max exposures (W.B. and extr.)	<u>70 mR WB for year 1984</u>	
Number of persons monitored	<u>~20 most for X-Ray work</u>	
Surveys conducted	<u>semi-annual</u>	§20.201, Lic Cond <u> </u>
Frequency, results, records	<u>OK</u>	§20.401
Levels in "Unrestricted Areas"	<u>OK</u>	§20.105
NOTES & REMARKS:		

8. <u>Personnel protection - internal</u>		<u>N/A</u>
Airborne concentrations in "Restricted Areas."	§20.103	
Exposure of minors.	§20.104	
Posting of airborne radioactivity areas.	§20.203	
Survey, monitoring requirements; records.	§20.201, §20.401	
Ventilation systems	Lic Cond <u> </u>	
Installation and Testing		
Process or Engineering controls	§20.103(b)(1)	
NOTES:		

Only sealed sources in use

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INSPECTION ITEMS	CRITERIA	FINDING
9. <u>Leak tests</u>		<u>OK</u>
Performed by who? ✓	Lic Cond _____	
Test frequency, Records of results ✓		
NOTES:		
<i>Leak tests performed by licensee on all sources in use and in storage</i>		
10. <u>Effluent control, waste disposal</u>		<u>OK</u>
Release of effluents.	§20.106	
Procedures, monitoring of effluents	§20.401, Lic Cond _____	
Waste disposal		
Transfer for final disposal	§20.311	
Release into sanitary sewage	§20.303	
Disposal by incineration	§20.305, Lic Cond _____	
Disposal of specific waste	§20.306	
Waste held for decay	Lic Cond _____	
Labels obliterated		
Surveys conducted		
Other specific disposal method(s)	§20.302	
Records of disposal	§30.51, §20.401(3)	

NOTES:

*No waste disposal since previous inspection
Some sealed sources returned to manufacturer for disposal*

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INSPECTION ITEMS	CRITERIA	FINDING
11. <u>Shipping shipping incidents</u>		<u>DK</u>
Procedures for pickup, receipt, monitoring of packages.	✓ §20.205(b) & (c) Lic Cond <u> </u>	
Transporation of licensed material.	✓ §71.5, Lic Cond <u> </u>	
Incidents, reports, corrective actions.	✓ 49CFR 170-199	
Compliance with DOT Regulations.	✓ 49CFR 170-199	
QA Program (under General License)	§71.11	

NOTES:

Licensee has procedures for receipt monitoring, Results of results are maintained.

12. <u>Notifications and reports</u>		<u>DK</u>
To individuals.	✓ §19.13	
Overexposures, excessive levels and concentrations incidents.	§20.403, §20.405	
Personnel exposures and monitoring, termination reports.	§20.407, §20.408	
Theft or loss of licensed material.	§20.402	

NOTES:

No notifications required

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INSPECTION ITEMS	CRITERIA	FINDING
13. <u>Posting of notices</u>		<u>OK</u>
Part 20, license and documents, procedures, notice of violations.	§19.11(a)	
Form NRC-3.	§19.11(c)	
NOTES:		
<i>Notices are posted</i>		
14. <u>Environmental monitoring program</u>	Lic Cond <u> </u>	<u>N/A</u>
Implementation of program, scope and frequency as required.		
Records maintained, reviewed by management.		
NOTES:		
<i>Sealed sources only. Monitoring performed for one experiment with H-3</i>		
15. <u>Emergency preparedness</u>	Lic Cond <u> </u>	<u>OK</u>
Procedures available for incidents and accidents.		
Training for personnel; coordination with supporting groups and agencies.		
NOTES:		
<i>Procedures are available. Local fire brigade trained.</i>		

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide License No.: 47-00260-02 Amendment No.: 140

INSPECTION ITEMS	CRITERIA	FINDING
16. <u>Other license conditions</u>	Lic Cond <u> </u>	<u>OK</u>

Reviewed with licensee representative

NOTES:

All license conditions were reviewed

17. <u>Confirmatory measurements</u>	\$20.105, \$20.201	<u>OK</u>
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Licensee's surveys verified on sampling basis.

NOTES:

*Survey of H.P. lab. and storage areas,
Unrestricted area < 0.5 mpc/hr*

Meter used

Calib. Date: 4-29-85Serial #: 8206

Diagrams of areas surveyed

18. <u>Independent inspection effort</u>		<u>OK</u>
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Scope of program

NOTES:

*Discussions of license requirements
Surveys (see above)*

16. TRANSPORTATION (10 CFR 71.5a and 49 CFR 171-178) Yes N/A Vic
- a. Licensee makes shipments of RAM? () ()
 Such shipments are:
 delivered to common carriers?
 transported in licensee's own vehicle as private carrier?
 both?
- If above is yes, complete items below:
- b. Are authorized packages used? [173.415-416] () ()
 Package types used:
 DOT-7A, Type A [173.415(a)]
 performance test records on file? () () ()
 DOT-55 [173.416(a)]
 licensee aware of 6/30/85 cutoff on use? () () ()
 Excepted, Instruments/articles [173.421-424]
 LSA-strong tight [173.425(b)(1)]
 NRC-Certified [173.416(b)]
 NRC COC's on file? [71.12(c)(1)] () () ()
 Registered with NRC as user? [71.12(c)(3)] () () ()
 Documented NRC-Approved Q/A Program? [71.17(b)] () () ()
 NRC Q/A Approval No.: _____
 Other: _____
- c. Special Form Material performance test records available for each source design? [173.416(a)] () () ()
- d. Packages Labeled as required? [172.403(a)] () ()
 Excepted () WI () YII () YII:
 Surveys performed to select correct label category and compliance with Rad. Limits? [173.474(i)] () () ()
- e. Packages Marked as required, i.e., proper shipping name, ID No., Spec. No., COC No., etc. [172.300] () ()
- f. Shipping papers prepared for each shipment? [172.200] () ()
 Such papers contain required information? [172.203(d)] () ()
- g. For Licensee private carrier shipments:
 Vehicles placarded as required? [172.500] () ()
 Cargo blocked, braced, tied down in vehicle? [172.842(d)] () ()
 Any incidents reported to DOT? [171.15-16] () ()
- h. Does Licensee ship any radwaste? *No* () ()
 If yes, are shipments:
 tendered to common carriers by licensee? () () ()
 tendered through a Radwaste Broker? () () ()
 If yes, name of Broker _____
 Is licensee aware of 10 CFR 61 waste generator requirements? [10 CFR 61] () () ()
 Has licensee classified and characterized waste? [20.311(d)] () () ()