

Plan approved: _____ Date: _____

Licensee: Union Carbide Corporation

License no: 47-00260-06

Inspection Items	Scheduled for inspection	Post-inspection status	Module no.	766 Time Info
Management meeting - Entrance and Exit Interviews [REQUIRED]			30703B	30 min
Initial Management Meeting				
Program requirements, MC 28.50 [REQUIRED]			77710B	2 hours
Licensee Event Followup			92700B	
Followup on Inspector-identified problems			92701B	
Followup on Noncompliance and Deviations			92702B	
IE Bulletin/Immediate Action Letter Followup			92703B	
Followup on Headquarters Requests			92704B	
Followup on Regional Requests			92705B	
Independent Inspection Effort [REQUIRED]				none
Inspector Dispatched to Site			93700B	
Followup on Significant Event Occurring During Inspection			93701B	

A-206

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide Corporation License no: 47-07266-06 Amendment no: 31

INSPECTION ITEMS	CRITERIA	FINDING
<p>1. <u>Organization</u></p> <p>Management organization. <i>OK</i></p> <p>Radiation protection organization. <i>OK</i> <i>see memo 1.</i></p> <p><i>(Committees meet once per year)</i></p> <p>NOTES & REMARKS: <i>isotope committee members</i> <i>C.W. CARMAN - Technical Center Safety</i> <i>R.W. Cope - Industrial Hygiene</i> <i>C.R. Landfield - RPO</i> <i>Dr. R.L. Meeker - Research & Development</i></p>	<p>Lic Cond _____</p>	<p><u>OK</u></p> <p><i>R.E. Peele - Occ. Health Team</i> <i>Skinner Slater - Purchasing</i> <i>Don Heisch - Asst. Chemist</i> <i>Mr. Sealy - Asst R.P.P.</i></p>
<p>2. <u>Licensee internal audits</u></p> <p>Scope and frequency.</p> <p>Management controls.</p> <p>NOTES & REMARKS: <i>Don Heisch</i> <i>Nathan Andraues</i> <i>S. Haag</i></p>	<p>Lic Cond _____</p>	<p><u>OK</u></p> <p><i>authorized users by committee above</i> <i>committee reviews all health physics activities.</i></p>
<p>3. <u>Training and instructions to employees</u></p> <p>Training program, scope and frequency, retraining. ✓</p> <p>Required tests administered; scores satisfactory. ✓</p> <p>Instructions to workers. ✓</p> <p>NOTES & REMARKS: <i>all workers are trained in a 40 hour formal training course before becoming an authorized user or worker in a restricted area.</i></p>	<p>Lic C</p> <p>Lic Cond _____</p> <p>19.12</p>	<p><u>OK</u></p>
<p>4. <u>Radiation protection procedures</u></p> <p>Operating & emergency procedures implemented. ✓</p> <p>Security. ✓</p> <p>NOTES & REMARKS: <i>all areas are secured by lock & key and fences</i> <i>Procedures available in each laboratory.</i></p>	<p>Lic Cond _____</p> <p>20.207</p>	<p><u>OK</u></p>

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide Corp. License no: H7-00000-06 Amendment no: 31

INSPECTION ITEM	CRITERIA	FINDING
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5. Materials, facilities and instruments OK

Authorized uses and quantities. ✓	Lic Cond _____
Restricted areas, posting requirements. ✓	20.203 _____
Survey instruments & dosimeters; operable, properly calibrated. ✓	Lic Cond _____

NOTES & REMARKS:

see memo # 2 for instrument list

6. Receipt and transfer of materials OK

Procedures implemented, adequate. ✓	20.205, 71.51
Transfer of byproduct material. ✓	30.41
Labeling and packaging. ✓	71.5, 49CFR 170-189
Records of receipt, transfer, storage, survey, and monitoring. ✓	30.51

NOTES & REMARKS:

Disposition of materials can be determined from file records.

7. Personnel protection - external OK

Personnel monitoring control; minimize exposures, control of accumulated dose. ✓	20.101, 20.102, 20.202
Surveys conducted, adequate. ✓	20.201
Records of monitoring, surveys, disposals. ✓	20.401, Lic Cond _____
Levels in unrestricted areas. ✓	20.1, 20.105

NOTES & REMARKS:

*Landauer film badge service on 2 week frequency.
No person received over 110 mrem/year.
12 persons monitored*

8. Personnel protection - internal OK

Airborne concentrations in restricted areas. <i>None</i>	20.103
Exposure of minors. <i>None</i>	20.104
Posting of airborne radioactivity areas. <i>NA</i>	20.203
Survey, monitoring requirements; records. <i>NA</i>	20.201, 20.401
Leak tests of sealed sources. <i>OK</i>	Lic Cond _____

NOTES & REMARKS:

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide Corporation License no: 47-00260-06 Amendment no: 31

INSPECTION ITEM	CRITERIA	FINDING
9. Effluent control, waste disposal		<u>OK</u>
Release of effluents. <u>none</u>	20.106	
Waste disposal. <u>OK</u>	20.301, 20.303, 20.304, 20.305	
Procedures, records.	20.401, Lic Cond _____	

NOTES & REMARKS: Records of waste disposal on hand. No materials are incinerated

10. Shipping, shipping incidents		<u>OK</u>
Procedures for pickup, receipt, monitoring of packages. <u>OK</u>	20.205(b) & (c)	
Transportation of licensed material. <u>OK</u>	71.5	
Incidents, reports, corrective actions. <u>none</u>	49CFR 170-189	

NOTES & REMARKS: no reportable incidents

11. Notifications and reports		<u>OK</u>
To individuals. ✓	19.13	
Overexposures, excessive levels & 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 & REMARKS: no incidents, no overexposures to be reported

12. Posting of notices		<u>OK</u>
Part 20, license & documents, procedures, notice of violations. ✓	19.11(a)	
NRC-3. ✓	19.11(c)	

NOTES & REMARKS: Posting and labeling OK in all areas and on all sources.

AREAS INSPECTED AND FINDINGS

Licensee: Union Carbide Corporation's License no: 47-00260-09 Amendment no: 31

INSPECTION ITEM	CRITERIA	FINDING
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<p>13. <u>Environmental monitoring program</u></p> <p>Implementation of program, scope and frequency as required. <i>NA</i></p> <p>Records maintained, reviewed by management.</p> <p>NOTES & REMARKS:</p>	<p>Lic Cond _____</p>	<p><u>OK</u></p>
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<p>14. <u>Emergency preparedness</u></p> <p>Procedures available for incidents and accidents.</p> <p>Training for personnel; coordination with supporting groups and agencies.</p> <p>NOTES & REMARKS:</p> <p><i>Individuals receiving training in bad health, fire, and general safety, Procedures posted in each area.</i></p>	<p>Lic Cond _____</p>	<p><u>OK</u></p>
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<p>15. <u>Other license conditions</u></p> <p>NOTES & REMARKS:</p> <p><i>The license was reviewed for each condition</i></p>	<p>Lic _____</p>	<p><u>OK</u></p>
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<p>16. <u>Confirmatory measurements</u></p> <p>Licensee's surveys verified on sampling basis.</p> <p>NOTES & REMARKS:</p>	<p>20.105, 20.201</p>	<p><u>none</u></p>
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<p>17. <u>Independent inspection effort</u></p> <p>NOTES & REMARKS:</p> <p><i>only measurements and effort performed on LCN 47-00260-02 (Calibration lab)</i></p>	<p>_____</p>	<p>_____</p>
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APPENDIX A - DOCUMENTATION OF NONCOMPLIANCE

Licensee: Union Carbide Corp.

License no: 47-00260-08

Reference	Basis for noncompliance
Report item _____	
10 CFR _____	<u>None</u>
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 _____	

Union Carbide

Corporate. V.P.

(50% People)

Chemicals

Plastics

Engineering (2000)

R.D. Staff, Director

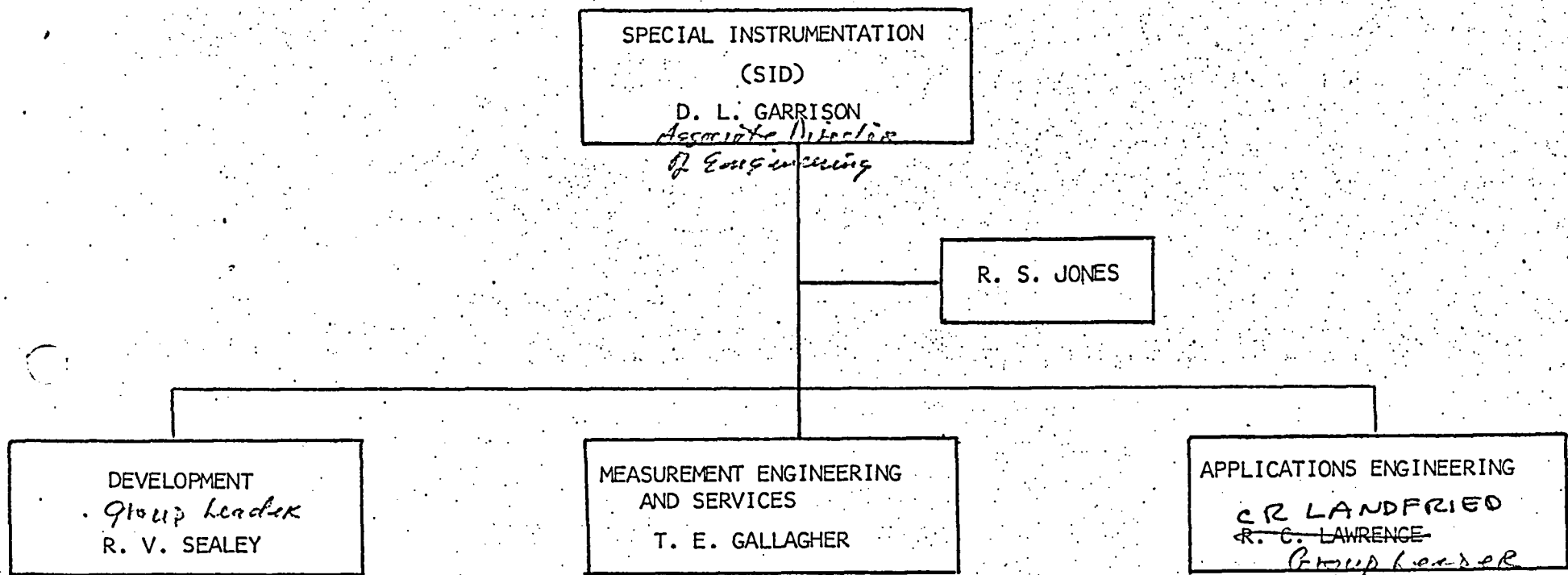
E.P./Occupational Health

Special

Instrumentation

Development
(Rad. Mat)

Applications
(Rad. Mat)



MEASUREMENT ENGINEERING
AND SERVICES
T. E. Gallagher

STAFF ASSISTANT -
SPECIAL ASSIGNMENTS
W. R. Thompson

SECRETARY Wanda Myers

FABRICATION
G. B. LeRoy

ACOUSTICS AND
ENGINEERING MEASUREMENTS

TEST INSTRUMENT
CALIBRATION AND
REPAIR

- M. D. Harper
- E. R. Bailey
- B. J. Hartley
- H. F. Montgomery
- P. E. Nunley
- D. M. Siers
- A. F. Skidmore
- E. C. Bennett
- P. M. Hutzler
- D. T. Davis
- R. C. Krebs
- R. C. Sweeney

J. C. Chapman

*Standards Lab
Test Equipment*

- C. H. Davidson
- R. H. Hudson
- Linda Redd
- L. F. Swann
- J. K. Thompson

J. D. Steele

- Dynamic Measurements:*
- Vibration Displacement-*
- Velocity-Acceleration*
- Strain Shock-Pressure*
- Pulsation-Force*
- Noise Surveys*
- Architectural Acoustics*
- Noise Control*
- Capital Projects*
- Existing Plant Problems*
- Community Noise Problems*
- Development of Special Silencers:*
- Visco-Elastic Dampening Systems*
- Acoustic Enclosures*
- Lagging Systems*

OPERATIONS OFFICE

- C. G. Carte
- Beverly Jones
- Norma Taylor
- Mary Jean Wickert
- Work Orders/ILSO*
- Accounting*
- Purchasing*
- Expediting*
- Shipping*
- Cost Library*
- Time Distribution*
- Central File System*
- Budget*
- Cost Feedback*
- Vehicles*

GAS MIXING
LABORATORY

- W. R. Jordan
- E. M. Babcock
- C. L. Nelson
- Gravimetric and
Partial Pressure
Gas Samples*
- Chromatographic
Columns*
- Pilot Plant Feed
Stock*
- Calibration Samples*

SHOPS:
Model
Prototype
Electronics
Static Pressure Calibration
to 100,000 lbs/in²

SPECIAL INSTRUMENTATION
APPLICATION ENGINEERING

C. Richards Fried
R. C. Lawrence

SECRETARY Kathy Starr

PROJECT, PLANT AND BUSINESS
TEAM COORDINATORS

W. M. Barrows - 510,526
J. E. Reed - 515
D. R. Pauley - 512,514
A. L. Young - 511
W. H. Wagner - 312
J. M. Berry - 293, 312, Ohio Valley
M. E. Carter - LDPE
C. E. Dunn
H. F. Bailey - HDPE

J. E. Johnson
S. F. Downs - 519,513
J. S. Beeby
R. E. Reiter

Jean Sealey - Training

Liaison and Consultation
Plant Working Budget
Capital Projects
Measurement Problems
Sample Systems
Special Instrumentation Training

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J. F. Cole
J. W. Gardner
R. A. Hastings
L. W. Hatcher
D. L. Huffman
D. L. McTeer
D. F. Osborne
C. E. Parsons
C. B. Peters
D. R. Smith
M. K. Wing

Customizing Commercial Equipment.
Calibration of Process Analyzers
Chromatographic-Moisture-
Ultraviolet-Infra-red-Oxygen, etc.
Evaluation
Analyzers
Components
Field Service
Installation and Startup
Contract Service
Revisions and Repair

ELECTRONICS AND NUCLEONICS
LABORATORIES

M. E. Cavender

INSTALLATION

J. A. Boggess
L. B. Rodgers
R. W. Stanton

Techs

Level
Density
Moisture

Capital Project
Plant Working
Budget
Field Service
Startup
Contract

SPECIAL INSTRUMENTATION
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SECRETARY Sharon Mulder

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T. M. Austin

INSTRUMENT DEVELOPMENT
E. G. Trawick

INSTRUMENT DESIGN
C. R. Landfried

R&D COORDINATOR
G. A. Gillis

RADIATION
PROTECTION

- M. C. Bowen
- E. T. Carroll
- H. Senman
- R. C. Barker

~~M. L. Green~~

- R. S. Berry
- W. S. Kennedy →
- B. C. Petersen

D. G. Allport

- G. L. Baker
- C. E. Frick
- J. R. Moss
- J. F. Petersen
- E. G. Trawick
- I. E. Williams

H. W. Withrow

- R. D. Dillon
- R. S. Calloway
- F. A. Coon, III
- J. F. Fisher
- E. C. Lawson
- T. O. Maki
- S. T. Martin
- P. P. Mierau

- D. J. Beach
- D. L. Brinkley
- R. N. Peay
- D. R. Spradling
- A. R. Rogers

*Nucleonic Development
Radiation Protection
Electrochemical
Optics
Physical Chemistry
Physical Methods
Chromatography*

*Air and Water Quality Monitoring
Industrial Hygiene Support*

*Chemical
Mechanical
Electronic
Drafting*

- 1 ea PNR-4 - Eberline, 0-5,000 R/h ranges
- 2 ea PNC-4 Eberline, 0-500,000cpm
- 2 ea 2592 - Texas Nuc, 0-1R, 3 ranges
- 4-5 ea E-520 - Eberline, 0-200 mR/hr, 5 ranges
- 1 ea PNR - Eberline, 500,000 cpm scintillator
- 2 ea Teletors, 0-70,000 R/hr. β, γ
- 2 ea R-meters Victoreen, with appropriate probe
- several neutron dosimeters 0-200 rad
- several β, γ dosimeters 0-200 mR
- 1 ea slow β , Beckman