



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

INSPECTION REPORT NO. 2901
GOODYEAR TIRE & RUBBER CO.
(Licensee name/address)
142 GOODYEAR BLVD.
AKRON, OHIO 44316
Telephone No: 216/794-4197

Attached

- ☒ Appendix A
() Appendix B
() Appendix C
() Memo

License No. SEE BACK OF PAGE Last amendment & date: _____
Docket No. _____ & Priority: _____, as of last amendment.
Category: _____
Inspection date(s): 6-8-79 Type of inspection: UNANNOUNCED

SUMMARY OF FINDINGS AND ACTION

- () No noncompliance, clear 591 () Noncompliance, 591 issued
☒ Noncompliance, Appendix A ☒ Regional action () Hq action
() Action on previous i/c, App B () Supplemental info, App C

RECOMMENDATIONS

See basis in Appendix C or attached memo.

- () Change Category to: _____ () Change Priority to: _____
() Next inspection date: 6-8-82

PERSONS CONTACTED
(NAME AND TITLE)

P.J. REILLY, PH.D. PRINCIPAL AUTH. USER
R.R. DI ROSSI, AUTH. USER

* Indicates those attending management meetings

Inspector: W.H. Schultz
(signature)

6-14-79
(date signed)

Approved: Carol J. Paparella
(signature)

6/18/79
(date signed)

9903030187 990223
PDR FOIA
POST98-341 PDR

MC 1005
4/77

9903030187 17AP

<u>LICENSE NO.</u>	<u>DOCKET NO.</u>	<u>CAT.</u>	<u>PRIORITY</u>	<u>AMEND. & DATE</u>
3A-00508-03	03005627	K	7	No. 10 3-8-78
3A-00508-04	03007038	E	4	No. 12 5-15-78
3A-00508-06	03005628	E	4	No. 21 8-24-78

APPENDIX A - DOCUMENTATION OF NONCOMPLIANCE

Licensee: GOODYEAR TIRE & RUBBER CO.License no: 3A-00508-04

Reference

Basis for noncompliance

Report item 1A.g

10 CFR

Lic Cond 13.AType n/c INF.

Co⁶⁰ sealed sources in Pod IRRADIATOR
NOT LEAK TESTED AT 6 MONTH INTERVAL
AS REQUIRED. NO. LEAK TEST BETWEEN
8-4-76 AND 8-29-77 AND NONE BETWEEN
8-9-78 AND 3-6-79

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

INDUSTRIAL - ACADEMIC INSPECTION REPORT

Licensee: GOODYEAR TIRE & RUBBER Co. Lic. No. 34-00508-06 Amend. No. 12
34-00508-04
 Date of Inspection: 6-8-79 34-00508-03 Amend. No. 10
Amendment No. 21

1. INSPECTION HISTORY

a. Items of noncompliance or safety items noted during last inspection
 conducted on 1-15-76 Yes _____ No ☒

b. Requirement _____ Corrected _____ Not Corrected _____

c. If any items of noncompliance or safety items noted during the last
 inspection were not corrected, explain: _____

2. ORGANIZATION

a. Organizational structure as described in application or letter

Dated _____, or SEE BELOW

b. List primary licensee contact: P.J. REILLY, Ph.D. Telephone No.: 216/729-4197

c. Comment: _____

DR. REILLY IS THE PRINCIPAL AUTH. USER UNDER THE
-04 AND -06 LICENSE AND ALL INDIVIDUAL USERS
UNDER THESE LICENSES REPORT TO HIM.

3. SUMMARY OF LICENSED PROGRAM (Kind of program, number of people, rate of use or quantities on hand, places and frequency of use, type, quantity and use as authorized).

(-04 LICENSE) POOL TYPE IRRADIATOR CONTAINING 6,580 CURIES OF Co^{60} (5-79). CONCRETE WELL 6' X 3' X 17' DEEP IS LINED WITH 1/4" THICK WELDED ALUMINUM LINER. USED FOR IRRADIATION OF PLASTICS & RUBBER.

(-06 LICENSE) BROAD R&D LICENSE - PROGRAM IS ESSENTIALLY INACTIVE AT PRESENT. WHEN ACTIVE THE PROGRAM INVOLVES MOSTLY USE OF C^{14} FOR TRACER STUDIES.

Category and priority of this license is appropriate: Yes ☒ No ☐

If "No" state new Category _____ Priority _____.

4. INTERNAL AUDITS OR INSPECTIONS

a. Required by L/C or application: Yes _____ No ☒ If "Yes":

1) By whom _____

2) Frequency _____ Announced: _____ Unannounced: _____

3) Scope _____

4) Records maintained: Yes _____ No _____

5) Records reviewed: Yes _____ No _____

6) Period Reviewed: _____

b. Comment (responsibility of auditor or committee, management control): _____

→ NOTE: LIC. NO. 34-00508-03 WAS NOT INSPECTED. THIS REPORT ONLY INCLUDES A REVIEW OF THE CIRCUMSTANCES SURROUNDING THE LEAK TESTING OF C^{14} SEALS, SOURCES & REPORT TO NRC THAT SEVERAL WERE LEAKING. 12/76

5. TRAINING RETRAINING AND INSTRUCTION TO WORKERS

a. Training program specified in L/C or application: Yes _____ No ☒

b. If training program is required, describe scope of program: _____

c. Retraining required: Yes _____ No _____

If "Yes" is retraining: Complete _____ Incomplete _____

1) Are tests and/or examinations required: Yes _____ No _____

2) If "Yes" are records available: Yes _____ No _____

3) Reviewed test results: Yes _____ No _____

4) Period reviewed: _____

5) Comment (per cent completed, test results, etc.): _____

d. Training provided, but not covered above: AUTHORIZED USERS HAVE
SOME ACADEMIC BACKGROUND BUT MOST TRAINING
IS ON-THE-JOB. FOR -0A LICENSE, EACH USER HAS A
COPY OF OPERATING PROCEDURE FOR IRRADIATION FACILITY.
COPY ALSO AT CONTROL PANEL OF IRRADIATION FACILITY

e. Instructions to workers in accord with 10CFR 19.12: Yes ☒ No _____

6. RADIOLOGICAL PROTECTION PROCEDURES

a. Operating and Emergency Procedures

FOR - OA LICENSE ONLY

- 1) Required by L/C or application: Yes ☒ No ☐
- 2) Provided, but not required by L/C or application: Yes ☐ No ☐
- 3) Procedures reviewed: Yes ☒ No ☐
- 4) Appeared Adequate: Yes ☒ No ☐
- 5) Comments (personnel's understanding of procedures):

PERSONNEL INTERVIEWED WERE VERY FAMILIAR
WITH CONTENTS OF EMERGENCY & OPERATING PROCEDURES
FOR THE POOL TYPE IRRADIATOR

b. Changes in procedures since last inspection: Yes ☒ No ☐

- 1) Were changes authorized: Yes ☒ No ☐

2) Comments:

EMERGENCY INSTRUCTIONS FOR USE OF Co^{60}
IRRADIATION FACILITY WERE UPDATED & SUBMITTED
WITH LETTER DATED 1-12-78

7. INSTRUMENTATION

a. Type(s) of radiation survey instruments on hand as per L/C, application or equivalent: Yes ☒ No ☐

- 1) If "No" list changes:

b. Capability of radiation survey instruments adequate for program:

Yes ☒ No ☐

c. Calibration of instruments required: Yes ☐ No ☒

d. If "Yes" instruments calibrated in accord with requirements:

Yes ☐ No ☐

e. Comment: A COMPLETE FORMAL CALIBRATION IS NOT
REQUIRED. HOWEVER, LICENSEE USES A NOMINAL
200mCi Co⁶⁰ SEALED SOURCE TO CHECK INSTRUMENT
RESPONSE EACH TIME BEFORE ENTERING THE IRRADIATION AREA.

8. MATERIALS

a. Radioactive material secured to prevent unauthorized removal from:

1) Restricted area: Yes ☒ No ☐

2) Unrestricted area (20.207): Yes ☒ No ☐

b. Method of control appears adequate: Yes ☒ No ☐

c. Comment: _____

9. FACILITIES

a. Facilities described in letter or application: Yes ☒ No ☐

b. Facilities inspected: Yes ☒ No ☐

c. Comment: NO CHANGE SINCE LAST INSPECTION

0. POSTING AND LABELING

a. Posting and labeling in accord with 10CFR 20.203: Yes ☒ No ☐

b. Comment: _____

RECEIPT AND TRANSFER OF MATERIAL

a. Procedures for picking up and receiving packages (10CFR 20.205 (b)(c)):

Yes ☒ No ☐

1) Incoming shipments monitored: Yes No

2) Records of monitoring maintained (10CFR 20.401(b)): Yes ☒ No ☐

3) Records reviewed by NRC inspector: Yes _____ No ☒

4) Period reviewed: _____

b. Procedures for opening packages (10CFR 20.205(d)): Yes ☒ No ☐

[illegible]

d. Records of receipt and transfer of material available (30.51(a); 40.61(a);

70.51(b)(1)): Yes ☒ No ☐

1) If "Yes" review of records was made by inspector: Yes ☒ No ☐

2) Period Reviewed: ONLY Co⁶⁰ RECEIVED SINCE LAST

3) Comments: INSPECTION. THIS MAT'L WAS RECEIVED 5-79
AND WAS ADDED TO POOL TO INCREASE SOURCE
STRENGTH TO 6,580 CURIES

e. Packages on hand meet labelling requirements (49CFR 173.399):

Yes ☐ No ☐ N/A

Comments: _____

f. Reports to commission required by L/C or regulation submitted:

Yes ☐ No ☐ N/A

Comments: _____

PERSONNEL RADIATION PROTECTION - EXTERNAL

a. Film or TLD badge supplier SEARLE ANALYTICAL

b. Badge exchange frequency BI-WEEKLY

c. Reports reviewed by INDUSTRIAL HYGIENE (CORPORATE RSO) WITH
ANNUAL COPY TO DR. REILLY

e. Records reviewed for period JAN. 1978 to DEC. 1978 by NRC inspector

f. NRC forms or equivalent

1) NRC-4 (20.102(b)): Yes ☐ No ☒ Complete: Yes ☐ No ☐

2) NRC-5 (20.401(a)): Yes ☒ No ☐ Complete: Yes ☒ No ☐

Maximum whole body ^{ANNUAL} ~~quarterly~~ exposure: 120 mREM

Maximum extremity quarterly exposure: POT MONITORED

3) Comment: _____

g. Pocket dosimeters used: Yes _____ No ☒

1) Type used: _____

2) Frequency of recharging: _____

3) Frequency of reading: _____

4) Comment: _____

h. Direct radiation surveys of restricted and/or unrestricted areas being made:

Yes ☒ No _____

1) Records of surveys being maintained: Yes ☒ No _____

2) Records of surveys reviewed: Yes _____ No ☒

3) Period reviewed: _____

4) Comments: SURVEYS OF IRRADIATION ~~AREA~~ FACILITY WERE
MADE & LEVELS IN UNRESTRICTED AREA WERE
LESS THAN 2 mR/HR

PERSONNEL RADIATION PROTECTION - INTERNAL

a. Potential for exposure of individuals to airborne radioactive materials

exists: Yes _____ No ☒

1) If "Yes" does program for monitoring and control exist: Yes _____ No _____

2) Program for monitoring and control appears adequate: Yes _____ No _____

b. Comments: _____

c. Respiratory protection program required by L/C or application:

Yes _____ No ✓

1) If "Yes" were respiratory protection procedures reviewed:

Yes _____ No _____

2) Respiratory protection procedures appear adequate: Yes _____ No _____

3) Comments: _____

d. Bioassay program required: Yes _____ No ✓

1) If "Yes" was bioassay program reviewed: Yes _____ No _____

2) Bioassay program appear adequate: Yes _____ No _____

3) Comments: _____

e. Smears and air samples

1) Monitoring for airborne radioactivity is conducted (20.103):

Yes _____ No ✓

a. Records of monitoring reviewed: Yes _____ No _____

b. Period reviewed: _____

c. Records of monitoring appears adequate: Yes _____ No _____

2) Smear surveys being conducted (20.201, b): Yes _____ No ✓

a. Records of smear surveys reviewed: Yes _____ No _____

b. Period reviewed: _____

c. Records appeared adequate: Yes _____ No _____

3) Comments: _____

14. LEAK TESTS

- a. Leak tests required: Yes ☒ No ☐
- b. If "Yes" leak tests conducted: Yes ☒ No ☐
- c. Records of leak tests maintained: Yes ☒ No ☐
- d. Leak tests records reviewed: Yes ☒ No ☐
- e. Period reviewed: 1-15-76 TO 6-8-79
- f. Records of leak tests appear adequate: Yes ☐ No ☒
- g. Comments: THE Co⁶⁰ IRRADIATION FACILITY POOL WAS LEAK
TESTED AT 6 MONTH INTERVALS EXCEPT NONE BETWEEN
8-4-76 AND 8-29-77 AND BETWEEN 8-9-78 AND 3-6-79
BOTH INTERVALS ARE GREATER THAN 6 MONTHS AND
CONSTITUTE NONCOMPLIANCE WITH LIC. COND. NO. 13.A NYC

15. RADIOACTIVE EFFLUENT CONTROL AND WASTE DISPOSAL

- a. Byproduct material released to atmosphere and/or sewer (20.106 and 20.303):
Yes ☐ No ☒
- b. Records of releases or radioactive effluents maintained (20.401):
Yes NA No ☐
- 1) Period reviewed: _____
- 2) Records appear adequate: Yes ☐ No ☐
- c. Solid waste disposal method: TRANSFER TO LICENSED DISPOSAL CO.
- 1) Records of disposal maintained (30.51): Yes ☒ No ☐
- 2) Surveys of waste prior to disposal made (20.201): Yes ☒ No ☐
- 3) Period reviewed: _____
- 4) Records of surveys appear adequate (20.401): Yes ☐ No ☐
- d. Comments: NO WASTE DISPOSED SINCE LAST INSPECTION
NO WASTE PRODUCED UNDER THE -0A LICENSE AND
THE -06 LICENSE IS ESSENTIALLY INACTIVE AT PRESENT

16. SHIPPING INCIDENTS

a. Have any shipping incidents occurred since (date) NONE

1) Was incident documented: Yes _____ No _____

2) If "Yes" documentation appears adequate: Yes _____ No _____

b. Comments (reports to DOT, etc.): _____

7. NOTIFICATIONS AND REPORTS

a. Licensee in compliance with 10CFR 19.13 (reports to individuals):

Yes _____ No N/A

b. Licensee in compliance with 10CFR 20.405 (over exposures):

Yes _____ No N/A

c. Licensee in compliance with 10CFR 20.403 (incidents):

Yes _____ No N/A

d. Licensee in compliance with 10CFR 20.402 (theft or loss):

Yes _____ No N/A

e. Comments: THE LICENSEE NOTIFIED NRC, RTI, BY LETTER DATED
6-1-79 THAT SEVERAL C¹⁴ SEALED SOURCES WHICH ARE
USED IN GAUGES WERE LEAK TESTED IN ACCORDANCE
WITH REQUIREMENTS OF LIC. CONDITION NO. 13.A(1) OF
LIC. NO. 34-00508-03 AND WHEN LEAKAGE IN EXCESS
OF AUTHORIZED LIMITS ^{WAS} ~~WERE~~ FOUND THE LEAK TEST
RESULTS WERE REPORTED TO NRC AS REQUIRED (CONT. #22)

8. POSTING OF NOTICES

a. Licensee in compliance with 10CFR 19.11(a) or (b): Yes ☒ No ☐

b. Licensee in compliance with 10CFR 19.11(c): Yes ☒ No ☐

c. Comments: _____

9. ENVIRONMENTAL MONITORING PROGRAM

a. Environmental Monitoring Program required: Yes _____ No ☒

b. If "Yes" records reviewed: Yes _____ No _____

c. Period reviewed: _____

d. Records appeared adequate: Yes _____ No _____

e. If Environmental Program is not required, briefly describe any

existing program: _____

10. CONFIRMATORY MEASUREMENTS

a. Independent measurements made by inspector: Yes _____ No ☒

b. Comments (describe type, results, comparison with licensee results): _____

INDEPENDENT INSPECTION EFFORT

a. Comment on type of independent inspection effort conducted: _____

WALK THROUGH OF FACILITIES

CONTINUATION FROM PREVIOUS PARAGRAPHS - USE BACK OF PAGE IF NECESSARY

(CONTINUATION OF SECTION 17.2) BY LICENSE COND. NO. 13.C.
ON 5-8-78 LICENSEE HAD 10 GAUGES CONTAINING C^{14} AND
2 SPARE C^{14} SEALED SOURCES. MAXIMUM CONTAMINATION FOUND
WAS $0.0004 \mu Ci$. SOURCES LEAK TESTED AGAIN ON 11-8-78
AND MAX. CONTAMINATION WAS $0.0003 \mu Ci$. SEVEN
SOURCES FROM GAUGES AT ST. MARY, OHIO PLANT WERE
TRANSFERRED TO AKRON, OHIO TO BE USED AS SPARES.
ALL 7 WERE LEAK TESTED WHEN RECEIVED AND ONE WITH
A DAMAGED MYLAR WINDOW SHOWED A MAX. OF 0.0008
 μCi . THIS SOURCE WAS DISPOSED AS RADIOACTIVE WASTE.
ANOTHER LEAK TEST ON 5-21-79 SHOWED SOME CONT-
AMINATION OF SPARE SOURCES ($< NRC$ LIMIT) AND LICENSEE
DECIDED TO DECONTAMINATE ALL SPARE SOURCES AND
ONE MOUNTED ON THE #4 PRODUCTION GAUGE. A
VISUAL CHECK SHOWED THE MYLAR WINDOW ON 2 SPARES
AND THE #4 GAUGE WAS DETERIORATED AND THESE
3 SOURCES WERE DISPOSED INTO A WASTE DRUM. ALL 3
WERE $< 0.005 \mu Ci$. ALL REMAINING SPARES WERE
CLEANED WITH ISOCLEAN SOLUTION ON 5-30-79 AND

(CONTINUED ON NEXT PAGE)

Item 22 CONTINUED

LEAK TESTED AGAIN. THIS TEST SHOWED 2 SPARE SOURCES HAD $0.7\mu\text{Ci}$ AND $0.03\mu\text{Ci}$ OF REMOVABLE CONTAMINATION. THESE 2 SOURCES WERE SEALED IN A 1 GALLON PAINT CAN AND PLACED IN A 55 GALLON DRUM FOR SUBSEQUENT DISPOSAL AS RADIOACTIVE WASTE. THE LEAKAGE APPARENTLY RESULTED FROM THE DECONTAMINATION EFFORT AND THE SOURCES WERE NOT ON A GAUGE WHEN THE PROBLEM OCCURRED. THEREFORE, THERE WAS NO CONTAMINATION OF EITHER EQUIPMENT OR FACILITIES. NO FURTHER ACTION IS REQUIRED BY THE LICENSEE REGARDING THIS MATTER