

Michael H. Juba MS CIH

Vice President Product Safety, Health and Governmental Affairs



January 04, 2013

Nuclear Regulatory Commission
Region 1
Division of Nuclear Material Safety
2100 Renaissance Boulevard
Suite 100
King of Prussia, PA 19406-2713

ATTENTION: Licensing Assistance Team

RE: Radioactive Material License #47-16933-02
Amendment No. 10

Br. 3
03029384

Koppers Inc.

436 Seventh Avenue, Suite 1800

Pittsburgh, Pa. 15219-1800

Tel 412-227-2882

Fax 412-227-2423

jubamh@koppers.com

www.koppers.com

REC'D 101097130000

Dear Mr. Reichard:

During an internal radiation safety audit it was discovered that condition #17 of the subject license (detailed below) is significantly different from previous license conditions.

The following services shall not be performed by the licensee: installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source, and non-routine maintenance or repair of components related to the radiological safety of the gauge (i.e., the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding). These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

I have been identified as the corporate radiation protection officer for Koppers radioactive material licenses since 1984. During this period Koppers has operated under license conditions which permitted the removal, relocation and alignment of the nuclear gauges by trained Koppers instrument and electronics technicians under the supervision of the radiation protection officer and according to written procedures which require leak testing, surface intensity readings and personnel dosimetry as part of any gauge handling. Please refer to conditions 17, 18, 19 & 20 in Radioactive Material License #47-16933-02; Amendment No. 9 (attached). Similar conditions have historically been part of separate radioactive material licenses at six Koppers operating sites including the Follansbee, WV location. I am requesting that conditions 17 thru 20 as part of the previous license (Amendment No. 9) be included in the current license.

Please contact Michael H. Juba at 412-227-2882 if you require additional information as part of your evaluation or with additional questions.

Sincerely,

Michael H. Juba
V.P. Product Safety, Health and Governmental Affairs
Corporate Radiation Safety Officer
jubamh@koppers.com
www.koppers.com

Enclosure(s)

C: Mark Alan
Nate Weinstein

579741
NMSS/RGN1 MATERIALS-002

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p>Licensee</p> <p>1. Koppers Inc.</p> <p>2. P.O. Box 665 Follansbee, West Virginia 26037</p>	<p>In accordance with the letter dated January 12, 2011,</p> <p>3. License number 47-16933-02 is amended in its entirety to read as follows:</p> <p>4. Expiration date May 31, 2012</p> <p>5. Docket No. 030-29384 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium 137</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (TN Technologies, Inc., Models 696894, 57157C; Amersham/Searle Model 850263; General Radioisotopes Model 850233; Gamma Industries Model VD; New England Nuclear Model NER-570)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 1350 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State</p>
<p>9. Authorized use:</p> <p>A. In TN Technologies Model 5200 series, Kay Ray Model 7062 and Nuclear Chicago Model 1021 fixed gauging devices for controlling industrial processes (or elemental analysis of bulk material, if applicable).</p>		

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at 100 Koppers Road, Off WV Route 2, Follansbee, West Virginia.
11. Licensed material shall be used by, or under the supervision of Mark C Alan or individuals who have received the training described in application dated November 27, 2001, and have been designated, in writing, by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.

Duplicate

Duplicate

License Number

1616933-02

Duplicate

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

Docket or Reference Number

030-29384

Amendment No. 09

12. The Radiation Safety Officer for this license is Mark C. Alan.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- C. Sealed sources need not be tested if they are in storage and are not being used; however, when they are removed from storage for use or transferred to another person and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- E. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
47-16933-02Docket or Reference Number
030-29384

Amendment No. 09

15. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
16. A. Each gauge shall be tested for the proper operation of the on-off mechanism (shutter) and indicator, if any, at intervals not to exceed 6 months or at such longer intervals as specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or the equivalent regulations of an Agreement State.
- B. Notwithstanding the periodic on-off mechanism (shutter) and indicator test, the requirement does not apply to gauges that are stored, not being used, and have the shutter lock mechanism in a locked position. The gauges exempted from this periodic test shall be tested before use.
17. A. Installation, initial radiation surveys, relocation, removal from service of devices shall be performed only by, Mark C. Alan, Michael H. Juba or other individuals who have completed the training specified in [application/letter] dated [insert dates] or by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- B. The following services shall not be performed by the licensee: dismantling, alignment, replacement, disposal of the sealed sources and non-routine maintenance or repair of components related to the radiological safety of the gauge. These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. The licensee may initially mount a gauge if permitted by the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State and under the following conditions:
- A. The gauge must be mounted in accordance with written instructions provided by the manufacturer;
- B. The gauge must be mounted in a location compatible with the "Conditions of Normal Use" and "Limitations and/or Other Considerations of Use" in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State;
- C. The on-off mechanism (shutter) must be locked in the off position, if applicable, or the source must be otherwise fully shielded;
- D. The gauge must be received in good condition (i.e., package was not damaged); and

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

47-16933-02

Docket or Reference Number

030-29384

Amendment No. 09

E. The gauge must not require any modification to fit in the proposed location.

Mounting does not include electrical connection, activation or operation of the gauge. The source must remain fully shielded and the gauge may not be used until it is installed and made operational by a person specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such operations.

19. A. The licensee may maintain, repair, or replace device components that are not related to the radiological safety of the device and that do not result in the potential for any portion of the body to come into contact with the primary beam or in increased radiation levels in accessible areas.
- B. The licensee may not maintain, repair, or replace any of the following device components: the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, or shielding, or any other component related to the radiological safety of the device, except as provided otherwise by specific condition of this license.
20. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the U.S. Nuclear Regulatory Commission or an Agreement State.
21. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
22. The licensee shall assure that the shutter mechanism, for each device containing licensed material, is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify, as appropriate, its "lock-out" procedures whenever a new device is obtained to incorporate the device manufacturer's recommendations.
23. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

47-16933-02

Docket or Reference Number

030-29384

Amendment No. 09

24. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application dated November 27, 2001 (ML021560173)
- B. Letter dated November 28, 2005 (ML060190416)
- C. Letter dated September 30, 2008 (ML082940097)

For the U.S. Nuclear Regulatory Commission

Date January 25, 2011

By

Original signed by Michael Reichard

Michael Reichard
Materials Security and Industrial Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

This is to acknowledge the receipt of your letter/application dated

11/4/13, and to inform you that the initial processing which includes an administrative review has been performed.



Amendment (47-16933-02)
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.



Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 579741.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.