Green Bay Packaging Inc.

Winchester Coated Products Division

March 7, 2007

NMSB3

United States Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406-1415

03033271

Reference: License 45-25268-01

Dear Sir or Madame;

Green Bay Packaging Inc., Winchester Coated Products Division, wishes to amend its current License in the following Manner:

> We are adding a new gauge in the summer of 2007 that is manufactured by Mahlo America, Source SN (Serial Number) - ON193, Nominal activity 3GBq (100 millicurries), Seal Source Model # Amersham/Searle KR4.

It is our intent to receive specific training for this gauging from the manufacture upon its arrival and before starting equipment. I am including a copy of the Mahlo License and the device registrations as attachments. We will follow all rules and procedures as defined by our current license for installation and operation.

Thanking you in advance for your corporation.

Respectfully,

Michael P Dickey RSO

Michael P. Dickey, RSO
Green Bay Packaging-Winchester Coated Products Division
540/678-2632

RECEIVED
REGION 1
2007 MAR -9 AM 11:12

cc: Mark A. Johnson – Engineering and Maintenance Manager
Thomas Schibly – Division Manager
Susan Englehart – Englehart and Associates, Nuclear Consultants
Mike Welling – Virginia Department of Health
Scott Plumley – RSO, Mahlo America

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NMSS/RGN1 MATERIALS-002

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OVERVIEW OF REQUIREMENTS FOR THE USE OF BETA GAUGE SENSORS:

The following manual of information is being provided to overview the requirements associated with the delivery, installation, operation, and disposal of a radioactive isotope (beta gauge) sensor.

Once the beta gauge has been purchased, the following are the requirements of the end user and those of Mahlo America, Inc.

Requirements of the end user:

1) Must sign the declaration form for import of the source (This will be provided by Mahlo America).
2) Must inform state governing agency as to receipt of the source. They will most likely request a copy of our general license and registry form (both documents are enclosed). A directory of the agency for your state can be found on the following web site: **www.hsrd.ornl.gov/nrc/asdirectr.htm**
   For most states, this is only required so that there is a documented record of the source location, but some states do charge a small annual fee.

Requirements of Mahlo America, Inc.:

1) Register the source with the NRC (Nuclear Regulatory Committee)
2) Provide to customer the following as is enclosed in this manual:
   a. Copy of General License
   b. Copy of the Source Holder Registry
   c. Copy of the Safety Procedures for installation, operation, and disposal
   d. Requirements for testing – shutter test or leakage test depending on source

The source will be installed by a certified technician from Mahlo during start up and all transportation requirements will also be handled by Mahlo.

Mahlo America has a specific license for the import and distribution of all of the beta gauge sensors we supply in the US and Canada. More specifics on each specific isotope can be found in the copy of the General License enclosed. Once the beta gauge source is delivered to the end user, a general license is granted (under the Mahlo America license) to the customer upon receipt of the radioisotope. This thereby satisfies all requirements for use of the beta gauge sensor.

If you have any further questions, please do not hesitate to call.

Kind regards,

MAHLO AMERICA, INC.

Scott Plumley
RSO Officer

Mahlo America, Inc., P.O. Box 2825, 575 Simuel Road, Spartanburg, S.C. 29304-2825, Tel.: 1-864-576 6288; Fax: 1-864-576 0009, e-mail: info@mahloamerica.com
A subsidiary of Mahlo GmbH + Co KG, 93342 Saal/Donau, Germany, internet: www.mahloamerica.com

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GENERAL LICENSE

Mahle America, Inc., P.O. Box 2825, 575 Simuel Road, Spartanburg, S.C. 29304-2825, Tel.: 1-864-576 6288; Fax: 1-864-576 0009, e-mail: info@mahleamerica.com
A subsidiary of Mahle GmbH + Co KG, 93342 Saal/Donau, Germany, internet: www.mahleamerica.com

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to the Atomic Energy and Radiation Control Act, Section 13-7-40 et.seq. of S.C. Code of Laws of 1976, as amended, and Supplements thereto, and the South Carolina Department of Health and Environmental Control Regulation 61-63, Radioactive Material (Title A), and in reliance on statements and representations heretofore made by the applicant, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the South Carolina Department of Health and Environmental Control now or hereafter in effect and to any conditions specified below.

Amendment No. 16 amends

LICENSEE	3. License Number:
1. Name: Mahlo America, Inc.	142 in its entirety.
2. Address: 575 Simuel Road Spartanburg, SC 29304	4. Expiration Date: August 31, 2008

5. Radioactive Material (Element & Mass No.)	6. Chemical and/or Physical Form	7. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.
A. Krypton 85	A. Sealed source (Amersham Model KR-4)	A. No single source to exceed 100 millicuries.
B. Strontium 90	B. Sealed source (Amersham Model VZ-0255)	B. No single source to exceed 15 millicuries.
C. Promethium 147	C. Sealed source (Amersham Model VZ-0095)	C. No single source to exceed 100 millicuries.
D. Americium 241	D. Sealed source (Amersham Model AMC-18)	D. No single source to exceed 500 millicuries.

8. Authorized Use:

A. through C. To receive and store radioactive material contained in Mahlo source holder Model 610/61, 6270/61 or 6270/62 and pursuant to RHA 2.7.1, Department Regulation 61-63, to distribute the gauging devices to persons generally licensed pursuant to RHA 2.4.2, Department Regulation 61-63.

D. To install, maintain and test radioactive material contained in Mahlo source holder Model 610/61 and pursuant to RHA 2.7.1, Department Regulation 61-63, to distribute the gauging devices to persons generally licensed pursuant to RHA 2.4.2, Department Regulation 61-63.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 142
Amendment No. 16

Conditions

9. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.

10. The licensee shall comply with the provisions of Title A, State of South Carolina Rules and Regulations for Radiation Control; Part I - General Provisions; Part II - Licensing of Radioactive Materials; Part III - Standards for Protection Against Radiation; and Part VI - Notices, Instructions, and Reports to Workers; Inspections.

11. Radioactive material shall be used by, or under the supervision of: Scott Plumley (RSO), Josef Pugner or Paul Wodecki.

12. Sealed sources containing radioactive material shall not be opened or removed from their respective source holders by the licensee.

13. Each gauge distributed under this license shall bear durable, clearly visible labels containing the words "Caution - Radioactive Material", the quantity and isotope contained, the date of measurement, the manufacturer's name and address and the following statements:

    (a) "The receipt, possession, use and transfer of this Model No.___, Serial No.___, are subject to general license or the equivalent and the regulations of the U.S. Nuclear Regulatory Commission or State which the Commission has entered into am agreement for the exercise of regulatory authority." (*The model and serial numbers may be omitted from this statement provided that they are elsewhere specified in labeling affixed to the device.)

    (b) "This device shall not be transferred, abandoned, or disposed of except by transfer to a person holding a specific license by the U.S. Nuclear Regulatory Commission or an Agreement State."

    (c) "This device shall be tested for proper operation of the on-off mechanism and indicator at time of installation of the device and thereafter at no longer than six-month intervals."

    (d) "Operation prohibited if there is indication of possible failure of, or damage to the shielding or containment of radioactive materials, or the on-off mechanism or indicator."

    (e) "Installation, dismantling, relocation, repair, or testing shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services."

    (f) Each label required by this condition shall contain the statement, "Removal of this label is prohibited."

14. Devices distributed under this license shall be installed, maintained, and tested by Mahlo America, Inc. or other persons specifically licensed to perform such service.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 142
Amendment No. 16

15. A. Each sealed source containing radioactive material, other than Hydrogen-3, with a half-life greater than thirty (30) days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested.

B. The test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

C. If the test reveals the presence of 0.005 microcuries or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Chief, Bureau of Radiological Health, South Carolina Department of Health & Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, describing the equipment involved, the test results, and the corrective action taken.

16. Mahlo America, Inc. shall furnish each licensee to whom it transfers a unit described in this license with the following:

(a) A copy of the general license contained in Title A, State of South Carolina Rules and Regulations for Radiation Control, Section 2.4.2, and all sections of the South Carolina Rules and Regulations referenced in Section 2.4.2.

(b) A written statement of standard safety precautions to be observed when using the unit.

(c) A written statement of the six month leak test requirement.

17. After installation by Mahlo America, Inc. of each device distributed under this license, the licensee shall conduct a radiation survey and shall assure that the levels of radiation do not exceed those specified for the installed device. The licensee shall furnish the customer with a written report of the results of the radiation survey.

18. The licensee shall conduct a physical inventory every six (6) months to account for all radioactive material received and possessed under the license. The records of the inventories shall be maintained for inspection by the Department and shall include the quantities and kinds of radioactive material, manufacturer's name and model numbers, location of radioactive material, and the date of the inventory.

19. The licensee shall report to the U.S. Nuclear Regulatory Commission or to the responsible Agreement State agency all transfers of devices distributed pursuant to this license for use under a general license. The report shall be submitted within 30 days after the end of each calendar quarter in which the device is transferred to the generally licensed person.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 142
Amendment No. 16

20. The licensee shall report to the Chief, Bureau of Radiological Health, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201, all transfers of devices distributed under this license to persons generally licensed under RHA 2.4 (2.4.2) of the regulations of this Department. The report shall identify each general licensee by name and address, the type of device transferred, the quantity and type of radioactive material contained in the device. The report shall be submitted within 30 days after the end of the calendar quarter in which such a device is transferred to a generally licensed person.

21. Except as specifically provided otherwise, the licensee shall possess and use radioactive material described in Items 5, 6, and 7 of this license in accordance with statements, representations, and procedures contained in the following documents.

A. Renewal application dated March 19, 2003, signed by Udo Skarke.

For the South Carolina Department
of Health and Environmental Control

By: _____
T. Pearce O'Kelley, Chief
Bureau of Radiological Health

Date of Issuance: August 27, 2003

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REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES

MAHLO AMERICA REGISTRY NUMBER: SC438D102B

Mahlo America, Inc., P.O. Box 2825, 575 Simuel Road, Spartanburg, S.C. 29304-2825, Tel.: 1-864-576 6288; Fax: 1-864-576 0009, e-mail: info@mahloamerica.com
A subsidiary of Mahlo GmbH + Co KG, 93342 Saal/Donau, Germany, internet: www.mahloamerica.com

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: SC438D102B DATE: July 22, 1998

DEVICE TYPE: Weight Gauge

MODEL: 6270/61

DISTRIBUTOR: Mahlo America, Inc.
New Cut Road & I-85
P.O. Box 2825
Spartanburg, SC 29304-2825

MANUFACTURER: Mahlo GmbH & Co.
Donaustr. 12
D-93340 Saal/Donau
Germany

SEALED SOURCE MODEL DESIGNATION: Amersham/Searle KR-4
Amersham-Buchler VZ-0255 and VZ-0095
Amersham AMC-18

ISOTOPE:	MAXIMUM ACTIVITY:
Krypton-85	100 millicuries
Strontium-90	15 millicuries
Promethium-147	100 millicuries
*Americium-241	500 millicuries

*(Specific License Required)

LEAK TEST FREQUENCY: 6 Months

PRINCIPAL USE: (D)Gamma Gauge
(E)Beta Gauge

CUSTOM USE: _Yes X No

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

NO.: SC438D102B DATE: July 22, 1998

DEVICE TYPE: Weight Gauge

DESCRIPTION:

The device is a weight per unit measuring and control unit. It is designed to accept krypton-85, strontium-90, promethium-147, or americium-241 sealed sources. The device model number is keyed to the isotope.

The Radioactive Material is housed in a circular brass, nickel plated container. The entire source housing assembly is argon-welded. A 0.1 mm thick stainless steel cap is placed over the radioactive material opening.

The radioactive source housing is shielded by lead on all but the shutter side. The steel shutter is opened by an electromagnet and spring loaded to the closed position. The shutter position indicator is located on the equipment instrument panel and a red indicator will appear on the emitter itself the moment the shutter opens.

The unit is installed at the exit or entrance of a tenter frame or similar textile machine. The source housing container, a 6 x 6 inch steel box, is installed opposite the receiver, a 5 inch diameter by 6-5/8 inch cylinder containing an ionization chamber. Two millimeter thick stainless steel sheets are mounted on the transmitter and receiver as fabric guides.

LABELING:

All devices distributed are labeled with the following: "CAUTION - RADIOACTIVE MATERIAL," radioactive symbol, isotope, quantity and date, serial number, manufacturer's identification, and instruction for receipt, possession, use, transfer, and disposal. Devices also contain the following information:

> The Receipt, Possession, Use And Transfer Of This Device Are Subject To General License Or The Equivalent And The Regulations Of The U.S. Nuclear Regulatory Commission Or Of A State with which The Commission Has Entered Into An Agreement For The Exercise Of Regulatory Authority.
>
> This Device Shall Not Be Transferred, Abandoned, Or Disposed Of Except Bt Transfer To A Person Holding A Specific License Issued By The U. S. Nuclear Regulatory Commission Or An Agreement State. This device Shall Be Tested for Proper Operation

DEVICE TYPE: Weight Gauge

LABELING: (Cont.)

Of the On-Off Mechanism And Indicator At The Time Of Installation Of The Device And Thereafter At No Longer Than Six-Months Intervals.
Operation Prohibited If There Is Indication Of Possible Failure Of, Or Damage To, The Shielding Or Containment Of The Radioactive Material Or The On-Off Mechanism Or Indicator.
Installation, Dismantling, Relocation, Repair, Or Testing Shall Be Performed By Persons Specifically Licensed By The U. S. Nuclear Regulatory Commission Or An Agreement State To Perform Such Service.

The following statement is also included:

REMOVAL OF THIS LABEL IS PROHIBITED

CONDITIONS OF NORMAL USE:

The devices are designed for use in beta/gamma gauging to measure the density of material in industrial environments. Expected conditions are:

Temperature- up to 250 F (121 C)
Humidity-up to 100%
Vibration-Industrial conditions at no vibration.

PROTOTYPE TESTING:

Mahlo America, Inc. has indicated that they have no information concerning prototype testing of the device. However, they have indicated that these devices were first distributed in the mid 1970's and there have been no reported failures resulting in a radiation hazard.

EXTERNAL RADIATION LEVELS:

For krypton-85 as described by Mahlo diagram #610/501, maximum dose rate on contact is 30 mr/hr (shutter closed). At closest operator position; 0.05 mr/hr at six feet. For strontium-90 as described by Mahlo diagram #610.3224, maximum dose rate is 4 mr/hr on contact (shutter closed) and less than 0.05 mr/hr at six feet. For promethium-147, maximum exposure rate of 0.1 mr/hr at one foot with shutter closed. For americium-241 as described by Mahlo diagram

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(AMENDED IN ITS ENTIRETY)

EXTERNAL RADIATION LEVELS: (Cont.)

#6270.130, maximum dose rate is 1 mr/hr at one foot (shutter closed) and less than 0.05 mr/hr at six feet.

LIMITATIONS AND /OR OTHER CONSIDERATIONS OF USE:

The device is authorized for distribution to general licensees and specific licensees pursuant to authority in 2.4.2 of the State of South Carolina, Title A, Rules and Regulations for Radiation Control under South Carolina Radioactive Material License No. GL-142-02.

The generally licensed user is authorized to test the on-off mechanism and indicator.(Detailed instructions to be provided by Mahlo America, Inc.)

A written statement of standard safety precautions will be furnished by Mahlo America to each customer. Devices containing strontium-90, promethium-147 and americium-241 are required to be tested for leakage and/or contamination at six months intervals.

REFERENCES:

This summary was prepared with the aid of Mahlo America, Inc. letters dated September 22, 1995, January 5, 1996, March 15, 1996, April 19, 1996, July 2, 1996, **July 2, 1998** and all associated drawings, documents and procedures.

DATE: 7/31/98 REVIEWED BY: David L. King
David L. King

DATE: 7/31/98 REVIEWED BY: James K. Peterson
James K. Peterson

ISSUING AGENCY:

South Carolina Department of Health and Environmental Control
Bureau of Radiological Health

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

3/7/2007, and to inform you that the initial processing which includes an administrative review has been performed.

☑ Amend. 45-25268-01
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

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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** 140193.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader