



September 20, 2011

Tamara E. Bloomer, Chief
Nuclear Materials Inspection Branch – Div. of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

RE: Response to an Apparent Violation in Inspection Report No. 03013087/2011001(DNMS); EA-11-061

Escanaba Paper Company, Inc. – License No. 21-17630-01

Dear Ms. Bloomer:

This letter is in response to the NRC Inspection Report dated August 26, 2011 regarding an apparent violation involving unauthorized dismantling and non-routine maintenance or repair of components related to the radiological safety of a nuclear gauge.

Reason for Apparent Violation

We fully acknowledge the severity of the apparent violation of Condition 17B of our radioactive materials license. The description of our actions is for the purpose of describing the reason for the apparent violation and is not intended to dispute the findings of the inspection. We would like to explain the reasons for our actions regarding the stuck shutter on the nuclear gauge.

During a routine shutter check the shutter of a Kay-Ray Model 7050 (serial no. 1019) the shutter handle was reported to be broken off of the gauge. In accordance with NRC regulatory requirements, we reported the incident to the NRC Operations Center and followed up with a 30-day written report.

Since the shutter was stuck in the open position we decided that the best course of action was to remove the gauge from service and place it into secured storage. This would allow us to install a fully functional gauge in its place where the shutter could be locked out in the closed position as needed.

We decided that attempting to close the stuck shutter would be the most appropriate course of action to keep exposures As Low As Reasonably Achievable (ALARA). In order

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to access the shutter, we needed to remove a thin metal dust cover on the back of the gauge. After reviewing condition 17 of our radioactive materials license we concluded that this cover was not a component related to the radiological safety of the gauge since it was not part of the source housing, shielding, or shutter mechanism. Our decision to remove the dust cover was based on the idea that it is in place to prevent materials or product from getting in the front of the gauge that could prevent proper movement of the shutter, not provide shielding. Note that the manufacturer's drawing references the removed part as a dust cover. See Attachment 1.

As demonstrated to Edward Kulzer, NRC Health Physicist, during the onsite inspection on June 28, 2011, we used an 18-inch rod to perform the operation and fully evaluated potential radiation exposures throughout the operation with a survey meter. Our actions were done after consideration and with safety in mind. However, we now fully acknowledge that removing the dust cover to attempt the shutter closure exceeded the scope of activities authorized under our radioactive materials license. Our interpretation of our radioactive materials license and regulatory guidance was incorrect in that there was an increased possibility of personnel exposure by performing this operation and removing the dust cover is indeed "dismantling and non-routine". We acknowledge the significance of this violation and remain committed to maintaining a fully compliant radiation safety program by performing the following corrective actions.

Corrective Actions That Have Been Taken and Results Achieved

- 1) The *NewPage – Escanaba Michigan Operations Radiation Policy* was revised to clarify that only authorized personnel dismantle or conduct non-routine repair of components related to the radiological safety of a nuclear gauge. The Procedure for Nuclear Gauge Installation, Removal, and Relocation contained in the Radiation Policy has been updated with additional information regarding routine vs. non-routine maintenance and what operations are prohibited by NewPage personnel. See Attachment 2
- 2) The *Nuclear Gauge Installation/Removal Survey Form* has been revised so that the Authorized User performing the work must sign off on the form acknowledging that dismantling and non-routine maintenance or repair of components related to the radiological safety of the nuclear gauge shall not be performed. See Attachment 3
- 3) On September 20, 2011 a training session was conducted with the RSO and Authorized Users who are authorized to install, remove, and relocate nuclear gauges. Emphasis was placed on what activities are authorized under the radioactive materials license, a review of the NRC inspection report, corrective actions taken, and further regulatory guidance concerning stuck shutters. See Attachment 4 for Training Outline and Attendance Sheet.

The RSO and Authorized Users have been trained and have a solid understanding regarding what actions are authorized by the radioactive materials license and the limitations of Condition 17B.

Corrective Actions That Will Be Taken To Avoid Further Violations

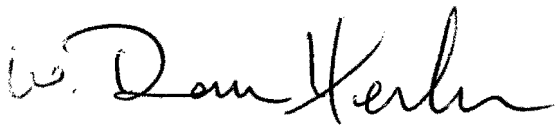
We feel that we have taken all necessary corrective actions to ensure that full regulatory compliance has been achieved. We will emphasize our corrective actions in our future annual radiation safety training classes.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on September 20, 2011.

Thank you for your assistance with this matter. If you have questions regarding this letter or if further actions are required please contact Darren Hendon at (906) 233-2839.

Sincerely,
Escanaba Paper Company

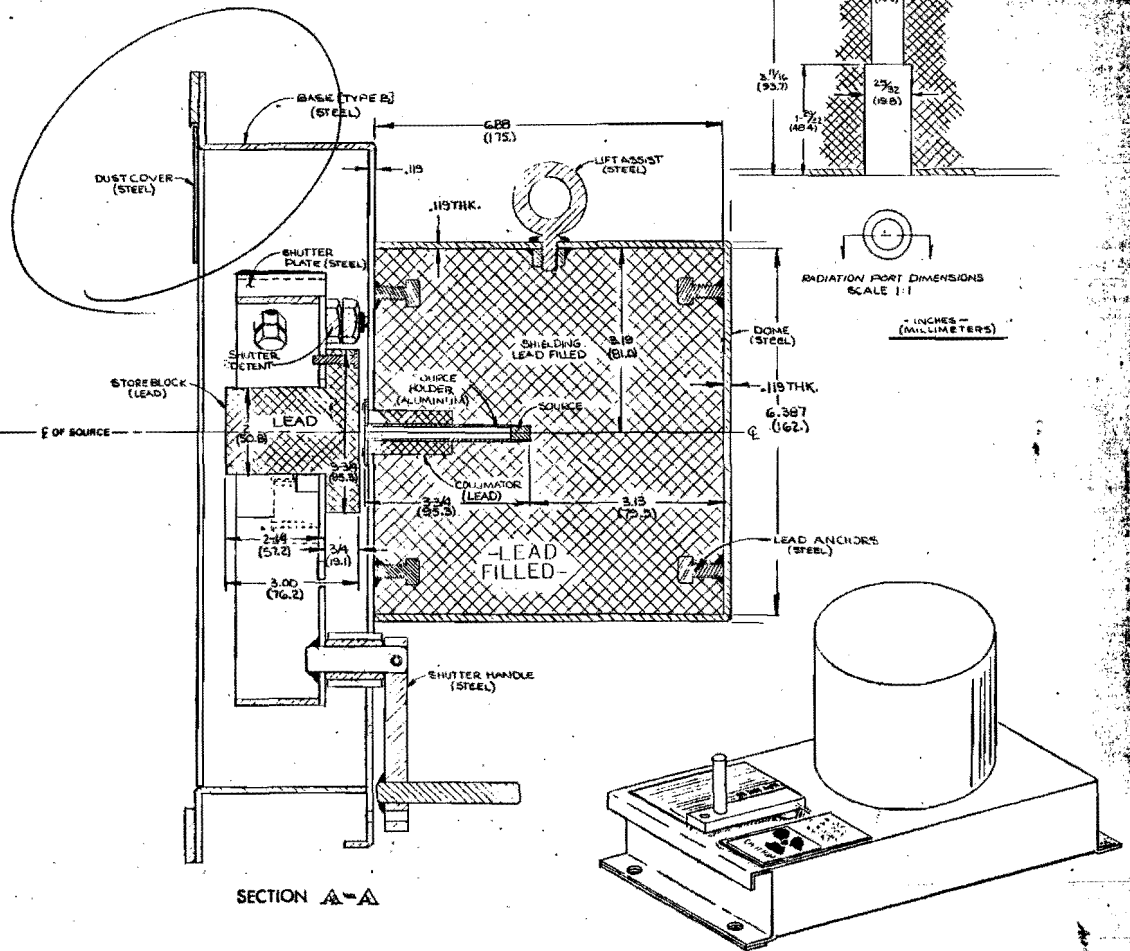
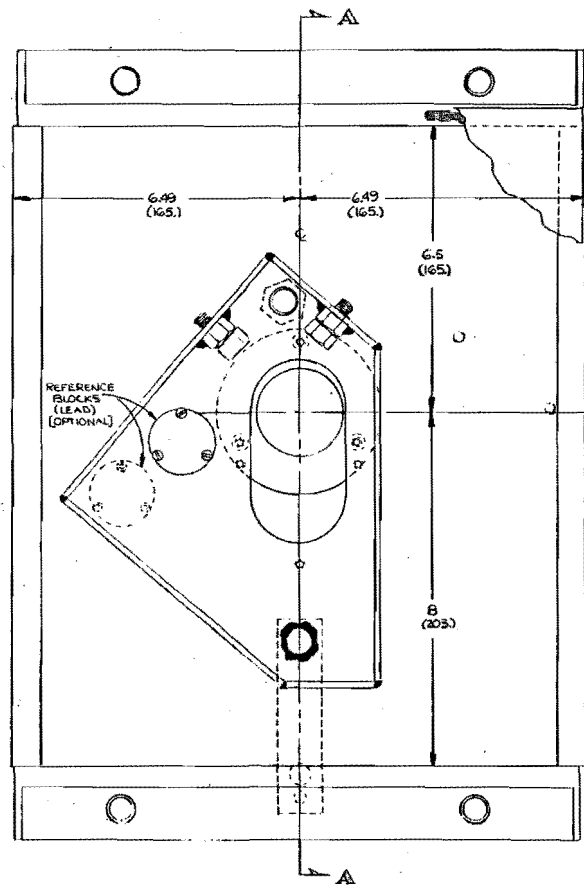


W. Darren Hendon
Radiation Safety Officer

Sincerely,
Escanaba Paper Company



Greg Maule
Mill Manager



SECTION A-A

SCANNED

MODEL 7050 B GAMMA SOURCE HEAD - EUROPEAN INSPECTION		Key-Ray/Sensell, Inc. Model Project 6 0000-600	
SCALE OF DIMENSIONS UNLESS OTHERWISE SHOWN			
NO.	REVISIONS	DATE	APP.
DRAWN BY P. LANGE		DATE 8-10-74	
CHECKED BY G. Z. J.		DATE 9-1-74	
DWG. NO. 972-705003			

Attachment 1

Procedure for Nuclear Gauge Installation, Removal, Relocation

Policy:

This policy is to ensure ALARA is met, while working with the nuclear gauges. This procedure shall be followed by all individuals authorized to install, remove or relocate nuclear gauges.

Procedure:

- A. Those individuals listed on the radioactive material license must be present for the installation, removal, relocation, and initial radiation survey of nuclear gauges. E&I maintenance personnel are authorized to perform these functions under the direct supervision of the licensed authorized users or specific licensed company.
- B. No installation, removal, or relocation shall be performed without notifying the RSO.
- C. *Non-routine maintenance shall only be performed by the licensed manufacturer or a licensed service provider. Non-routine maintenance or repair (beyond routine cleaning, lubrication, calibration, and electronics repairs) means any maintenance or repair that involves or potentially affects components, including electronics, related to the radiological safety of the gauge (e.g., the source, source holder, source drive mechanism, shutter, shutter control or shielding) and any other activities during which personnel could receive radiation doses exceeding NRC limits.*
- D. Installation Procedure

The following steps shall be followed when installing a nuclear gauge:

1. Shutter operator handles shall be locked in the closed position until the housing is bolted in its final operating position. (Indicate the shutter closed on the gauge survey form)
2. Individuals installing gauges shall limit the time spent by themselves and others in handling source housings to an absolute minimum.
3. After installation, a confirmatory leak test shall be performed on the source housing. This test does not restrict the operation of the device pending the results. Check the appropriate box on the survey form to indicate completion. (Leak test kits can be obtained by contacting the RSO.)

4. The source housing shutter mechanism shall be checked for proper operation. The labels attached to the housing shall be checked for accuracy. Check the appropriate boxes on the survey form to indicate completion.
5. An authorized user shall perform a radiation survey of the source housing, detector, and adjacent areas. The surveys shall be performed with the source-housing shutter in the open or "measure" position. Record the survey results on the survey form.
 - a. If any dose rate in excess of 5.0 mR/hr is found at a distance of 12 or more inches from any surface of the source housing or detector, adjustments shall be made to lower the dose rate to an acceptable level.
 - b. If the dose rate cannot be reduced to an acceptable level the authorized user shall ensure that a "Caution Radiation Area" sign is posted and/or barricades are installed.
6. Other precautions that shall be implemented are:
 - a. The air gap between the gauge and pipe or vessel would not allow insertion of a 30 cm (12 inches) diameter sphere into the radiation beam of the gauge without removal of a barrier.
 - b. Post signs on vessel entry doors near the gauge to warn individuals that lockout; tag-out procedures must be used to enter the vessel.
7. Complete the gauge radiation survey form and provide a copy of the RSO. Please note: Indicate whether or not this was an installation or removal of a gauge by circling one or the other at the very top of the page.

E. Relocation Procedures

The following steps shall be followed when relocating a nuclear gauge:

1. The RSO shall be notified that the gauge is to be relocated for his/her approval.
2. The shutter operator handle shall be locked in the closed position before the housing or detector is unbolted. Record the shutter position on the survey form.
3. When re-installing the nuclear gauge follow the procedure for installation.
4. Complete the survey form and provide a copy to the RSO.

F. Removal Procedures

The following steps shall be followed when removing a nuclear gauge from service:

1. The RSO shall be notified that the gauge is to be removed and stored for his/her approval.
2. The shutter operator handle shall be locked in the closed position before the housing or detector is unbolted.
3. If the housing is to be placed in storage, a radiation survey of the storage area shall be performed to assure that persons working in the vicinity will not be exposed to excessive levels of radiation. Record the results on the survey form.
4. If the housing is to be returned to the manufacturer for repair or disposal, contact the manufacturer for proper shipping information. Perform a leak test, if one has not been completed within the previous six (6) months.
5. If permanent removal, check / remove any unnecessary warning signs.
6. Complete the radiation survey form and provide a copy to the RSO.

Nuclear Gauge Installation/Removal Survey Form

Licensee (Customer) Name: Escanaba Paper Company
Radioactive Material License # 21-17630-01

P.O. Box 757, County Road 426 Escanaba MI 49829
Address *City* *State* *Zip*

Initial: _____ I understand installation, initial radiation survey, relocation, removal from service, replacement, alignment, and disposal of devices containing sealed sources shall be performed by Carl Lippens or Jeff Thennes

Initial: _____ I understand dismantling and non-routine maintenance or repair of components related to the radiological safety of the gauge shall not be performed

Contact Person: Darren Hendon/RSO **Phone:** (906) 786-1660, ext. 2839

Gauge Manufacturer: _____

Model # _____ **Serial #** _____ **Isotope:** _____ **Activity** _____

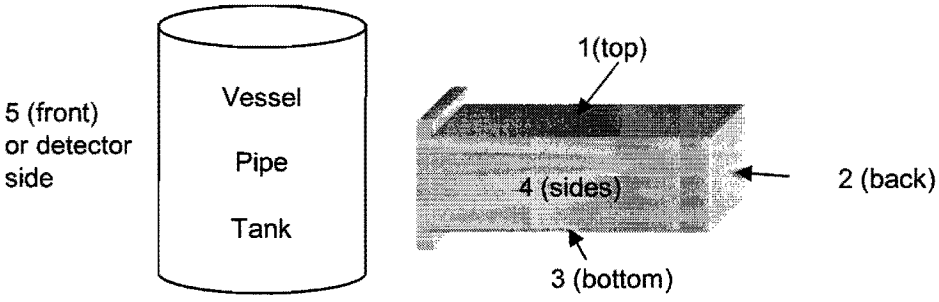
	yes	no
Leak Test Performed		
Shutter Operation OK		
*Radiation Tags OK		
Gauge Condition OK		
Gauge Locked - Closed		

Location: _____

Survey Instruments used to Perform Survey:

Manufacturer: _____ **Model:** _____ **Serial Number:** _____

Battery test _____
Functional test _____



Closed Shutter Readings Pre-Removal			Closed Shutter Readings Post-Removal		
	Surface mR/hr	@ 1 Foot mR/hr		Surface mR/hr	@ 1 Foot mR/hr
1 Top			1 Top		
2 Back			2 Back		
3 Bottom			3 Bottom		
4 Sides			4 Sides		
5 Front			5 Front		

*If measurement at 1 foot is > 5mR/hr: Post "Caution Radiation Area" sign

Comments: _____

Survey Performed By: _____ **Date:** _____

Radiation Safety Training

Date: September 20, 2011

Presented By: Glenn Huber, CHP – Stan A. Huber Consultants, Inc.

Training Outline

1. Review of 5/9/11 Stuck Shutter Incident and Follow-up NRC Inspection on 6/28/11
 - a. Discussion of Inspection Report dated 8/26/11
 - b. Review of Radioactive Materials License with emphasis on Condition 17
2. Routine vs. Non-Routine Maintenance
 - a. Review of Section 8.10.8 Maintenance – NRC NUREG 1556, Volume 4 Program-Specific Guidance About Fixed Gauge Licenses
 - b. Activities authorized under Radioactive Materials License and who is authorized to perform them
 - c. Dismantling and non-routine repair of components related to the radiological safety of a gauge must be performed by the manufacturer or other licensed outside service provider.
3. Review of Proper Shutter Operation and NRC Reporting Requirements
 - a. NRC Information Notice 2009-18 – *Performance of Required Shutter Checks and Reporting of Gauge Shutter Failures*
 - b. NRC Information Notice 2011-09 – *Fixed Gauge Shutter Failures Due to Operating in Harsh Working Environments*
 - c. Shutters arms must operate freely using only hand pressure. No additional tools or leverage can be applied. If a shutter is sticking or stuck during routine lockout the RSO must be immediately notified.
4. Corrective Actions
 - a. Review of updated procedure *NewPage – Escanaba Michigan Operations Radiation Policy*
 - b. Review of updated *Nuclear Gauge Installation/Removal Survey Form*
5. Questions
 - a. If anyone is unsure or unclear on procedures or authorized activities they are to contact RSO
 - b. If RSO is unsure or unclear on procedures or authorized activities they are to contact NRC for guidance.

Carl Egan

9-20-11

Jeff Phennes

9-20-11

W. Dan Huber

9/20/11

FEDEX

Express

ORIGIN ID: ESCA (906) 233-2236
CHARLIE CRETEN
NEWPAGE
7100 COUNTY 426
M. S ROAD
ESCANABA, MI 49829
UNITED STATES US

SHIP DATE: 22SEP11
ActWgt: 0.3 LB MAN
CAD: 485296/CAFE2472

ORIGIN ID: ESCA (906) 233-2236
CHARLIE CRETEN
NEWPAGE
7100 COUNTY 426
M. S ROAD
ESCANABA, MI 49829
UNITED STATES US

SHIP DATE: 22SEP11
ACTWGT: 0.3 LB MAN
CAD: 485296/CAFE2472
BILL SENDER

TO TAMARA E. BLOOMER
U.S. NUCLEAR REGULATORY COMMISSION
2443 WARRENVILLE ROAD
SUITE 210
LISLE, IL 60532

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LISLE IL 60532

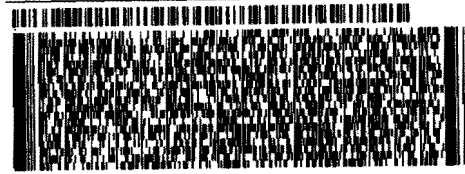
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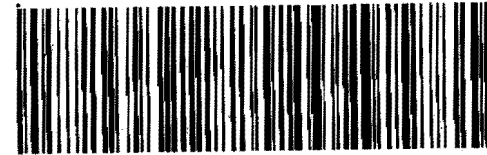
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