

June 15, 2012

NMED No. 120271 (Closed)

Mr. Gary VanDrese
Director of Source & Support
Escanaba Paper Company
P.O. Box 757
Escanaba, MI 49829

SUBJECT: NRC REACTIVE INSPECTION REPORT 03013087/12-002(DNMS) –
ESCANABA PAPER COMPANY.

Dear Mr. VanDrese:

On May 16, 2012, two U.S. Nuclear Regulatory Commission (NRC) inspectors conducted a reactive inspection at your Escanaba, Michigan, facility with continued NRC in-office review through June 8, 2012. The purpose of this inspection was to review the circumstances surrounding Event No. 47889 in which you reported a stuck shutter to the NRC Operations Center. The in-office review included an examination of your 30-day written report dated May 30, 2012 and received by our staff on June 4, 2012. The enclosed report presents the results of this inspection, which were discussed with your staff during the telephonic exit meeting held on June 11, 2012.

During this inspection, the NRC staff examined activities conducted under your license related to public health and safety. Additionally, the staff examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

No violations of the NRC requirements were identified as a result of this inspection, and no response is required to this letter.

In accordance with Title 10 of the Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

If you have any questions concerning this matter, please contact Edward Kulzer of my staff at 630-829-9875.

Sincerely,

/RA/

Hironori Peterson, Acting Chief
Materials Inspection Branch
Division of Nuclear Materials Safety

Docket No. 030-13087
License No. 21-17630-01

Enclosure:
Inspection Report 03013087/12-002(DNMS)

cc w/encl: Darren Hendon,
Radiation Safety Officer
State of Michigan

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State of Michigan

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U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Docket No.: 030-13087

License No.: 21-17630-01

Report No.: 03013087/12-002(DNMS)

NMED No.: 120271

Licensee: Escanaba Paper Company

Facility: 7100 CR 426
Escanaba, Michigan 49829

Dates: May 16, 2012
In-office review through June 4, 2012

Preliminary Exit Meeting: May 16, 2012

Final Exit Meeting: June 11, 2012

Inspectors: Edward Kulzer, Health Physicist
Ryan Craffey, Health Physicist

Approved By: Hironori Peterson, Acting Chief
Materials Inspection Branch
Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY
Escanaba Paper Company
NRC Inspection Report 03013087/12-002(DNMS)

On May 2, 2012, Escanaba Paper Company (licensee) reported an Event (No. 47889) in which a fixed gauge shutter was determined to be stuck open during its annual shutter check. On May 16, 2012, two U.S. Nuclear Regulatory Commission (NRC) inspectors conducted a reactive inspection at the licensee's facility in Escanaba, Michigan to follow up on the May 2 event.

The NRC inspectors determined that the root cause of the event to be environmental factors to which the gauge was exposed. The licensee stated in their 30-day written report that they would conduct shutter checks at increased frequencies, with the goal of identifying potential issues before they became reportable events.

As a result of the field inspection and in-office review which continued through June 4, 2012, the NRC inspectors determined that no violations were identified.

The licensee manufactures paper products and uses cesium-137 in fixed gauges to measure the physical properties of materials. NRC License No. 21-17630-01 authorizes the licensee to use several models of nuclear gauges, including Kay-Ray/Sensall, Inc. and Thermo Measure Tech brand devices.

Report Details

1 Program Overview

Escanaba Paper Company (licensee) located in Escanaba, Michigan, manufactures paper products. NRC License No. 21-17630-01 authorizes Escanaba Paper to use several models of nuclear gauges for measuring physical properties of materials. The licensee had a total of 86 gauges, 18 were generally licensed in accordance with Title 10 of the Code of Regulations (CFR) Part 31.5.

2 Stuck Shutter Event

2.1 Inspection Scope

The inspectors discussed the circumstances surrounding Event No. 47889 with the licensee's Radiation Safety Officer (RSO) and their contractor during separate telephone calls on May 10, 2012. The inspectors also reviewed the licensing history of Escanaba Paper (with particular attention paid to license conditions six through nine) in preparation for the inspection.

On May 16, 2012, the inspectors arrived on site in Escanaba, MI and reviewed the circumstances of the May 2, 2012, event by examining the following: the original event report; the Sealed Source and Device Registry information for the gauge in question; and a draft of the required 30-day response letter. The inspectors interviewed the licensee personnel who responded to the event, and examined the storage.

2.2 Observations and Findings

In accordance with 10 CFR Part 30.50(b)(2) on May 2, 2012, the licensee reported to the NRC Operations Center that the shutter of a Kay-Ray Model 7063PS density gauge failed to close with normal hand pressure during performance of its annual shutter check. The licensee reported that no personnel radiation exposures occurred as a result of the failure for the shutter to close. The licensee contacted their consultants as well as the gauge manufacturer for repair guidance. On May 10, 2012, a manufacturer's field service engineer performed repairs to the gauge in question and returned it to working order. The repairs consisted of cleaning and lubricating the shutter mechanism.

During the performance of these shutter checks, the licensee also found that a pin securing the shutter handle of a Kay-Ray Model 7050 density gauge was in need of replacement and might potentially break if an attempt was made to actuate the shutter. As with the 7063PS gauge, this issue did not pose a risk of overexposure to workers, so the licensee kept the gauge in service until May 10, 2012, when the field service engineer assisted the licensee in removing this gauge from service, placing it in secure storage with another 7050 gauge that had been removed from service last year because of a broken shutter (see NRC Inspection Report 03013807/11-001 (DNMS)).

The inspectors observed the gauges in operation, and toured the location where the gauges no longer in service were being stored.

In accordance with NRC regulatory requirements, the licensee submitted a written report of the event to the NRC dated May 30, 2012. In the report, the licensee determined that

the root cause of the event was that the 7063PS gauge was located in an environment that adversely affected shutter operation. As a corrective action, the licensee stated that they would reduce their shutter check intervals from 12 months to 6 months, with the goal of identifying shutter problems before they become reportable events.

The inspectors agreed that the licensee adequately determined the root cause of the event. In regard to the 7050 gauge also mentioned in the 30-day report, the inspectors consider poor design to be the root causes of the degraded shutter mechanism, with age and environmental conditions as contributing causes.

2.3 Conclusions

The inspectors reviewed the circumstances surrounding Event No. 47889, actions taken to date, the root cause determination and the corrective actions planned to prevent recurrence. The inspectors had no findings in these areas.

3 **Other Areas Inspected**

3.1 Inspection Scope

The inspector reviewed other areas of the licensee's radiation safety program including physical inventories and shutter checks by reviewing the licensee's records. The inspectors toured the facility to observe the physical condition of a number of other gauges in operation.

3.2 Observations and Findings

Physical Inventories

Based on licensee records, the inspectors determined that the licensee had completed physical inventory inspections at the required frequency. The licensee last updated the inventory on May 15, 2012. Currently, the licensee has 83 gauges in service, and two in secure storage for disposal (the 7050 gauges mentioned above).

Shutter Checks

Based on licensee records, the inspectors determined that the licensee conducted shutter checks as required. The inspectors determined that all shutter checks were performed in a timely manner, and were effective at proactively identifying degraded shutter mechanisms.

Facility Tour

The inspectors observed a number of fixed gauges for density measurements in use throughout the licensee's facility, as well as several fixed gauges used to detect clogging at digester inlets. The inspectors verified the physical condition of this sample of gauges, observing solid mounting, clear and durable steel tagging, proper vessel signage when necessary, and presence of a shutter lock.

3.3 Conclusions

During the course of the event follow-up, the inspectors reviewed several additional aspects of the licensee's radiation safety program. The inspectors had no findings in these areas.

4 Exit Meeting Summary

The NRC inspectors presented preliminary inspection findings following the onsite inspection on May 16, 2012. The licensee did not identify any documents or processes reviewed by the inspectors as proprietary. The licensee acknowledged the findings presented. The inspectors conducted a final telephonic exit interview with the RSO on June 11, 2012, after receiving and reviewing the licensee's 30-day written report.

Partial List of Personnel Contacted

- * Gary VanDrese – Director of Source & Support, Escanaba Paper
- *+ Darren Hendon – RSO, Escanaba Paper
- * Glenn Huber – Consultant, Stan A. Huber Consultants, Inc.

** Attended preliminary exit meeting on May 16, 2012*

+ Attended final exit meeting on June 11, 2012

Inspection Procedures Used

- 87102 Inspection of Material Licensees Involved in an Incident or Bankruptcy Filing
- 87124 Fixed and Portable Gauge Programs