



Notice of Violation (Corporation)

Date of notice: October 21, 2020

AMP number: 2020-AMP-02

Violation committed by: Interior Testing Services Ltd.	Amount of penalty: \$ 1,000.00
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Violation

Failure of consignor to comply with IAEA Regulations in accordance with Subsection 28(1) of the *Packaging and Transport of Nuclear Substances Regulations, 2015* (PTNSR 2015), specifically paragraphs (e) the determination of transport index, (h) the determination of categories for packages and (l) the marking and labelling of packages.

Relevant facts

I, Karen Owen-Whitred, Director General of the Directorate of Nuclear Substances Regulation and designated officer authorized by the Canadian Nuclear Safety Commission (CNSC) to issue notices of violation, believe on reasonable grounds that Interior Testing Services Ltd. committed the above violation. The facts relevant to the violation and the penalty calculation are as follows:

1. Interior Testing Services Ltd., located at 1-1965 Moss Court, Kelowna, British Columbia, holds a CNSC licence (06305-1-25.0) to possess, transfer, use and store portable gauges.
2. On July 30, 2020, Interior Testing Services Ltd. transferred a portable gauge (Troxler 3430, Serial Number 27453) for servicing to CNSC licensee Stuart Hunt and Associates Ltd. located in Edmonton, Alberta.
3. On August 4, 2020, the staff of Stuart Hunt and Associates Ltd. received the delivery of a portable gauge from Interior Testing Services Ltd. Upon receipt of the delivery, they noticed that the tungsten sliding block shutter, which functions as radiation shielding and must be closed during transportation, was fully open. This open shutter allowed for higher dose rate on the exterior of the package. When properly closed, the dose rate at any point on the external surface of the package is between 0.005 and 0.5 mSv/h and the package is assigned category II-YELLOW. A fully open shutter would have increased the dose rate at any point on the external surface of the package to between 0.5 and 2 mSv/h, which would result in the package being assigned category III-YELLOW. The package category is a prerequisite for labeling and to assist in handling and stowage. This resulted in the following violations: an incorrect transport index



- (PTNS 28(1)(e)), incorrect category of package (PTNS 28(1)(h)) and incorrect packaging labels (PTNS 28(1)(l)).
4. On August 4, 2020, as required by regulation, the servicing company Stuart Hunt and Associates Ltd. notified the CNSC through the Duty Officer emergency telephone line, that a portable gauge was shipped with the tungsten sliding block shutter fully open, allowing higher levels of radiation exposure outside the package. Stuart Hunt and Associates Ltd. followed their established procedures to service and clean the gauge to allow the shutter to fully close.
 5. On August 4, 2020, Stuart Hunt and Associates Ltd. notified Interior Testing Services Ltd. of this reportable event by email.
 6. On August 4, 2020, the Radiation Safety Officer (RSO) from Interior Testing Services Ltd. notified the CNSC of the reportable event through the Duty Officer emergency telephone line as required by Subsection 37(1) of the *Packaging and Transport of Nuclear Substances Regulations, 2015* (PTNSR, 2015).
 7. On August 4, 2020, the CNSC Duty Officer submitted a notification (by email) to the CNSC mailing list as per the Duty Officer procedures.
 8. On August 5, 2020, the information provided via the CNSC Duty Officer was reviewed for completeness by Directorate of Nuclear Substances Regulation staff, entered into CNSC Event Information and Tracking System (EITS), where a unique event number was created (#4991).
 9. On August 17, 2020, the RSO from Interior Testing Services Ltd. submitted the final event report to their assigned CNSC Licensing Specialist.
 10. CNSC staff assessed that a violation with Paragraph 28(1)(e) of the PTNSR, 2015 had occurred, which requires that a consignor of a package of radioactive material must comply with the IAEA Regulations in respect of the determination of the transport index (TI).
 - a. Paragraph 523(a) of the IAEA Regulations provides the requirements applicable to the determination of the Transport Index: “The TI for a package...shall be the number derived in accordance with the following procedure: (a) Determine the maximum dose rate in units of millisieverts per hour (mSv/h) at a distance of 1 m from the external surfaces of the package...” This was not done by the licensee.
 - b. A fully open shutter would have given a higher dose rate on the exterior of the package and would have resulted in a higher TI.
 11. CNSC staff also assessed that violations with paragraphs 28(1) (h) the determination of categories for packages and (l) the marking and labelling of packages of PTNSR, 2015 had occurred.
 - a. Table 8 of the IAEA Regulations provides the requirements applicable to the determination of categories for packages: a fully open shutter would have given a dose rate higher than 0.5 mSv/h at any point on the external surface and would have resulted in a III-YELLOW package.
 - b. Section 540 of the IAEA Regulations provides the requirements applicable to the labelling for radioactive contents: a fully open shutter would have given a different TI. The information on the labels (TI) was not updated by the licensee.



After reviewing all of the evidence for this matter, I am of the opinion that an Administrative Monetary Penalty should be issued. The AMP will dissuade recurrence of the above violation and promote future compliance with CNSC regulatory requirements. Applying the seven determinative factors found in section 5 of the *Administrative Monetary Penalties Regulations (Canadian Nuclear Safety Commission)*, the amount of the penalty was determined based on the following relevant facts:

1. Compliance history: Assessed score = 0

A compliance history review of Interior Testing Services Ltd., was conducted and encompassed the period from January 2015 to September 2020. This review identified that three (3) inspections were conducted, specifically a field inspection on April 29, 2016 and 2 Type II compliance inspections on August 17, 2016 and November 5, 2019. These three inspections identified that the licensee was compliant with Subsection 28(1) of PTNSR, 2015, and therefore there is no negative compliance history for this violation.

2. Intention or negligence: Assessed score = +1

Interior Testing Services Ltd. failed to properly comply with Subsection 28(1) of PTNSR, 2015 when preparing a Type A package to transport the portable gauge. The licensee did not verify that the tungsten sliding block shutter was fully closed, which allowed elevated radiation exposure from the sealed source, resulting in an incorrect transport index, incorrect category of package, and incorrect packaging labels.

3. Actual or potential harm: Assessed score = +1

The radiation exposures associated with this event were below regulatory limits and there were no reported overexposures related to this event. Nonetheless, Interior Testing Services Ltd. failed to ensure the portable gauge was placed in the safe, shielded position for transport and this presented a potential risk for the unnecessary exposure of persons, including those involved with transport. Interior Testing Services Ltd. failed to verify the transport index, the category of package and correct labeling.

4. Competitive or economic benefit: Assessed score = 0

Interior Testing Services Ltd. does not appear to have derived any competitive or economic benefit due to the violation.

5. Efforts to mitigate or reverse effects: Assessed score = 0

Interior Testing Services Ltd. undertook the basic efforts expected of any licensee to mitigate the effects of the violation.

6. Assistance to Commission: Assessed score = -1



Interior Testing Services Ltd. provided all requested assistance to the Commission within the specified timelines. The final event report was submitted within the required timeline.

7. Attention of Commission: Assessed score = -1

Interior Testing Services Ltd informed the CNSC of the improper packaging as required by the PTNSR, 2015.



Penalty calculation:

(See *Administrative Monetary Penalties Regulations (Canadian Nuclear Safety Commission) SOR/2013-139*)

(a) Category of violation

Category A Category B Category C

(b) Penalty range

Category	Minimum	Maximum	Maximum – minimum
A	\$1,000	\$12,000	\$11,000
B	\$1,000	\$40,000	\$39,000
C	\$1,000	\$100,000	\$99,000

(c) Determining factors

Factors	Scale of regulatory significance	Assessed score
1. Compliance history	0 <input checked="" type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	0
2. Intention or negligence	0 <input type="checkbox"/> +1 <input checked="" type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	+1
3. Actual or potential harm	0 <input type="checkbox"/> +1 <input checked="" type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	+1
4. Competitive or economic benefit	0 <input checked="" type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	0
5. Efforts to mitigate or reverse effects	-2 <input type="checkbox"/> -1 <input type="checkbox"/> 0 <input checked="" type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	0
6. Assistance to Commission	-2 <input type="checkbox"/> -1 <input checked="" type="checkbox"/> 0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	-1
7. Attention of Commission	-2 <input type="checkbox"/> -1 <input checked="" type="checkbox"/> 0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	-1
Total		0
÷ 29 ⁽¹⁾ [rounded to 2 decimal points]=		0
x \$39,000		
=		0
+ \$ 1000 =		\$1,000

⁽¹⁾29 being the maximum value of regulatory significance



To request a review

As a person subject to an administrative monetary penalty, you have the right to request a review of the amount of the penalty or the facts of the violation, or both. Your request must be made in writing indicating the reasons why you are requesting a review and providing supporting information.

If you choose to request a review, you must do so in writing by November 25, 2020 to:

Canadian Nuclear Safety Commission
c/o Marc Leblanc
Commission Secretary
P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

Fax: (613) 995-5086
Telephone: (613) 995-6506
Email: cnscc.interventions.ccsn@canada.ca

Payment

You may pay this administrative monetary penalty by sending a cheque to:

Receiver General for Canada
c/o Canadian Nuclear Safety Commission
Finance Division
P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

For other payment methods and further instructions, please refer to the attached *Notice of Payment Due*.

Should you neither pay the penalty nor exercise your right to a review, you will be considered as having committed the violation and will be liable to the penalty set out herein.



Issued by

Karen Owen-Whitred

Karen Owen-Whitred

Date October 21, 2020

Designated Officer

Telephone: (613) 410-8644

Email: karen.owen-whitred@canada.ca