



Notice of Violation (Corporation)

Date of notice: April 14, 2025

AMP number: 2025-AMP-02

Violation committed by:	Amount of penalty:
Sirati & Partners Consultants Ltd.	\$ 6460.00

Violation

In violation of paragraph 16(a) of the *Radiation Protection Regulations* (RPR), Sirati & Partners Consultants Ltd. has failed to notify the Commission when a dose limit exceeded an applicable dose limit prescribed by section 13 or 14 of the RPR.

Relevant facts

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

- Sirati & Partners Consultants Ltd. (herein the licensee) with an address at 160 Konrad Crescent, Unit 4, Markham, Ontario, holds CNSC licence No. 16146-1-26.2 authorizing the possession, transfer, use and storage of portable gauges.
- The licensee uses a specific style of portable gauges to conduct ‘compaction tests’ of earth materials. In general, these portable gauges contain Cs-137 sealed sources which are exposed from shielding during use and may contain Am-241:Be sources which remain fixed in the device.
- Subsection 13 (1) of the *Radiation Protection Regulations*, defines the effective dose limits for workers. Any worker who receives more than 1mSv in a calendar year needs to be classified as a Nuclear Energy Worker.
- Based on the *Radiation Protection Regulations*, paragraph 5 (2) (b) and paragraph 8 (1)(a), the effective dose to a worker can be ascertained through two (2) methods, direct measurement or by estimation.
- To facilitate this estimation of worker effective dose for portable gauge licensees the CNSC publishes an acceptable conversion factor value between a single compaction test and effective dose. This conversion factor is available in the CNSC publication, *Working Safely With Portable Gauges*, published in March 2018 (available at <https://www.cnscccsn.gc.ca/eng/nuclear-substances/licensing-nuclear-substances-and-radiation-devices/portable-nuclear-gauges/>).



- The conversion factor value for estimation of portable gauge workers effective dose is also published in the *Portable Gauge Annual Compliance Report form* (available at <https://www.cnsccsn.gc.ca/eng/resources/forms/annual-compliance-reporting>).
- The conversion factor value for estimation of portable gauge worker effective dose is: one (1) compaction test is equal to 1.2 μSv .
- The March 2018 CNSC publication *Working Safely With Portable Gauges* publication states: “In general, workers who perform more than 800 shots (one (1) compaction test equals one shot) each year should be defined as Nuclear Energy Workers, since previous studies indicate that each measurement typically results in an approximate 1.2 μSv dose per shot to the worker.” Note, the term ‘shot’ is the well-understood colloquial term for a compaction test.
- The licensee has opted to use both licensed dosimetry services and estimation for dose ascertainment depending on their internal criteria.
- The licensee has adopted a conversion from compaction tests to effective dose in their Radiation Safety Manual, section 13 by stating that workers who will conduct more than 800 shots will be designated as Nuclear Energy Workers. This is consistent with CNSC publications and the conversion of 800 shots multiplied by 1.2 $\mu\text{Sv}/\text{shot}$ equals 960 μSv (or 0.96 mSv).
- Section 16 of the *Radiation Protection Regulations* prescribes the actions that must be taken when a dose limit in section 13 (1) of the *Radiation Protection Regulations* is exceeded. There are multiple obligations on the licensee under this regulation. The first obligation, in *Radiation Protection Regulations* 16 (a), requires the licensee to notify the person and the Commission of the dose.
- The licensee’s radiation safety manual, section 11, states: “Any dose limit that exceeds the regulations will be immediately notified to the CNSC and followed by a written report within 21 days.” which reflects the licensee understands their obligation to section 16(a) of the *Radiation Protection Regulations*. This policy was present in the licensee’s previous radiation safety manual, dated January 30, 2024 and remains in the most current version, January 13, 2025.
- On November 30, 2023, a Type II inspection was conducted. Dosimeter records provided by the licensee indicated a worker received a dose of 1.92mSv in the second quarter 2023.
- During the November 30, 2023 inspection, the CNSC inspector discovered records indicating a worker received an effective dose of 1.92 mSv in the second quarter of 2023, and that this overexposure of a non-Nuclear Energy Worker was not immediately reported to the CNSC as per paragraph 16 (a) of the *Radiation Protection Regulations*.
- The overexposure of a non-Nuclear Energy Worker was cited as a non-compliance in the November 30, 2023 inspection report DC-16146-JF-231130-1. The recorded overexposure of a non-Nuclear Energy Worker was reported to the CNSC by the licensee on January 15, 2024, following the inspection and at the direction of the CNSC inspector.
- The inspection summary for inspection report DC-16146-JF-231130-1 communicated to the licensee that: “Further non-compliance with the regulations may result in increased enforcement which may include licence action, Orders, and/or Administrative Monetary Penalties.”
- On December 5, 2024, the CNSC conducted an inspection. Records provided by the licensee indicated one worker had conducted 918 compaction tests between January 1, 2024 and October 31, 2024, equivalent to a dose estimate of 1.102 mSv and exceeding the 1mSv dose limit.



- During the December 5, 2024 CNSC inspection, the exceedance of dose limit to one worker was identified by CNSC inspection staff while onsite. This had not previously been identified by the licensee nor was it immediately reported to the CNSC as required per paragraph 16(a) of the *Radiation Protection Regulations*.
- The December 5, 2024 inspection report index D-16146-JF-241205-1 records the licensee's non-compliance with the reporting requirements of paragraph 16(a) of the *Radiation Protection Regulation* and records the lack of notifying CNSC was brought to the licensee's attention during the inspection closing meeting.
- On December 9, 2024, Operations Inspection Division staff communicated via email to the licensee that CNSC had not received their *Radiation Protection Regulations* 16 (a) notification. The licensee's response did not meet the requirements for a *Radiation Protection Regulations* 16 (a) notification.
- On February 4, 2025, the CNSC's Nuclear Substance and Radiation Device Licensing Division staff requested confirmation that the licensee submitted their notification under *Radiation Protection Regulations* 16 (a). The licensee's response did not meet the requirements for a *Radiation Protection Regulations* 16 (a) notification.
- As of March 4, 2025, the required notification has not been provided to the CNSC.

Based on my review of this matter, I am of the opinion that an administrative monetary penalty will help deter recurrence of the above violation and promote future compliance with CNSC regulatory requirements. In consideration of the seven factors 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 = +1

There is a minor previous history of this non-compliance occurring – failure to report the exceedance of the dose limit for a non-NEW was cited in the inspection reports for the November 2023 and December 2024 inspections.

2. Intention or negligence: Assessed score = +3

The regulatory wording on immediately reporting dose exceedance is clearly written in the regulations. Further, the licensee's radiation safety manual states an immediate report is required. The non-compliance had been brought to the licensee's attention at the November 30, 2023, inspection. This is a repeat non-compliance.

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

There was minor potential harm to workers – while the actual doses received were not sufficient to cause measurable health effects, there is a risk of harm if doses are not being accurately tracked and limits are not being reported when required in the regulations.



4. Competitive or economic benefit: Assessed score = 0

The licensee 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

There were no demonstrable effects caused by this violation.

6. Assistance to Commission: Assessed score = -2

During the December 5, 2024 inspection, the licensee provided the requested records to the CNSC.

7. Attention of Commission: Assessed score = +1

This rating factor relates to the failure to report the violation, which was itself the failure to report a dose exceedance. The licensee did not itself identify the violation but had to be prompted by the CNSC.

Attachments

- CNSC ref. #[7191906](#) - Inspection Report from November 30, 2023, Index DC-16416-JF-231130-1
- CNSC ref. #[7203437](#) - Notification to CNSC of Dose Exceedance on January 16, 2024.
- CNSC ref. #[7422890](#) - Preliminary Inspection Report from December 5, 2024, Index D-16146-JF-241205-1
- CNSC ref. #[7357142](#) - Radiation Safety Manual, submitted on January 30, 2024.
- CNSC ref. #[6546763](#) - Working Safely With Portable Gauges
- CNSC ref. #[7468605](#) - Email communication between the licensee and Operations Inspection Division Staff
- CNSC ref. #[7468596](#) - Email communication between the licensee and Nuclear Substance and Radiation Device Licensing Division
- CNSC ref. #[7357142](#) - Licensee's Radiation Safety Manual (dated January 30, 2024)
- CNSC ref. #[7458967](#) - Licensee's Radiation Safety Manual (dated January 15, 2025)



Penalty calculation:

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

(a) Category of violationCategory 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 type="checkbox"/> +1 <input checked="" type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	1
2. Intention or negligence	0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input checked="" type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	3
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 checked="" type="checkbox"/> -1 <input type="checkbox"/> 0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	-2
7. Attention of Commission	-2 <input type="checkbox"/> -1 <input type="checkbox"/> 0 <input type="checkbox"/> +1 <input checked="" type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	1
Total		4
÷ 29 ⁽¹⁾ [rounded to 2 decimal points]=		0.14
x \$39000		
[total] =		\$5460
+ \$ 1000 [minimum for the category] =		\$6460

⁽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 May 14, 2025 to:

Canadian Nuclear Safety Commission
c/o Candace Salmon
Commission Registrar
P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

Fax: (613) 995-5086
Telephone: (613) 995-6506
Email: registry-greffe@cnsccsn.gc.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
Designated Officer

Date

Telephone: (613) 410-8644

Email: karen.owen-whitred@cnscccsn.gc.ca