



## Notice of Violation (Corporation)

**Date of notice: Thursday, March 20, 2025**

**AMP number: 2025-AMP-01**

<b>Violation committed by:</b>	<b>Amount of penalty:</b>
New Brunswick Power Corporation	\$ 24,760

### Violation

In violation of the *Nuclear Safety Control Act* (NSCA) paragraph 48(c), New Brunswick Power Corporation (NB POWER) has failed to comply with a condition of the Power Reactor Operation Licence (PROL) 17.01/2032.

Specifically, NB Power has failed to comply with Licence Condition 2.1 of PROL 17.01/2032, which states that “The licensee shall implement and maintain a human performance program.” The Compliance Verification Criteria (CVC) for this is set out in Licence Conditions Handbook LCH-PR-17.00/2032-R001 Section 2.1 and requires NB Power to comply with the requirements of REGDOC-2.2.4, Fitness for Duty: Managing Worker Fatigue. REGDOC-2.2.4, Sections 4.2 and 4.3 provide hours of work (HoW) and recovery limits, respectively, for workers in safety-sensitive positions (SSPs). Since the conduct of CNSC Type I Inspection report GPLRPD-2022-15009, CNSC has identified that NB Power’s approach to HoW and recovery limits allowed SSPs to be scheduled in violation of the requirements of REGDOC-2.2.4.

### Relevant facts

I, Alex Viktorov, Director General of the Directorate of Power Reactor Regulation and designated officer authorized by the Canadian Nuclear Safety Commission (CNSC) to issue notices of violations, believe on reasonable grounds that NB Power committed the above violation. The facts relevant to the violation and the penalty calculation are as follows:

On January 7, 2025, CNSC staff issued a Warning Letter to NB Power in response to continued non-compliances with REGDOC-2.2.4 HoW and recovery limits for SSPs at the Point Lepreau Nuclear Generating Station (PLNGS). The Appendix in the Warning Letter provides a detailed overview of events since non-compliances were first identified in CNSC Type I inspection GPLRPD-2022-15009, *Implementation of REGDOC 2.2.4, Fitness for Duty - Managing Worker Fatigue*. The following provides a summary:



1. CNSC staff conducted Type I inspection GPLRPD-2022-15009 from October 3-7, 2022, and issued the subsequent inspection report on December 21, 2022. A Notice of Non-Compliance (NNC) was issued to NB Power as their Shift Scheduling Software allowed workers to be scheduled in violation of the REGDOC-2.2.4 requirements for HoW and recovery. In addition, some workers were found to have exceeded the HoW and/or recovery limits. Action Item (AI) 221218-26740 was raised to track the resolution of non-compliances identified by CNSC staff in the inspection report.
2. In several AI updates, CNSC staff was informed that NB Power had raised interim corrective actions to prevent non-compliances with REGDOC-2.2.4 requirements. Specifically, NB Power had stated that shift schedulers were manually reviewing schedules to ensure no limits were exceeded.
3. Through 2023 and 2024, follow-up field inspections were completed by CNSC staff, which found continued non-compliances with respect to REGDOC-2.2.4 HoW and recovery limits. This demonstrated that the interim corrective actions taken by NB Power were not effective in preventing non-compliances with REGDOC-2.2.4 requirements:
  - a) As documented in CNSC Field Inspection Record (FIR) PLRPD-2023-FIR-18685 (conducted September 19, 2023) and Finding #16 in inspection report PLRPD-2023-18151, CNSC staff identified instances in which Security staff (SSPs) had not received the required 72-hour Recovery period after completing three or more consecutive night shifts. An Extent of Condition performed by NB Power revealed 104 non-compliances by SSPs in Operations, Emergency Response Team, and Security in 2023 (January to October) and 150 non-compliances by the same workgroups in 2022. However, the scope of the cause evaluation and corrective actions was limited to only one of the requirements that were not flagging correctly in the software (specifically, the requirement for a 72-hour Recovery period following three or more consecutive night shifts).
  - b) As documented in CNSC FIR PLRPD-2024-FIR-22219 (conducted October 10, 2024), CNSC staff found that three REGDOC-2.2.4 requirements were not appropriately flagging in the Shift Scheduling Software. An Extent of Condition performed by NB Power across the three safety-sensitive workgroups revealed ninety-three (93) non-compliances with one requirement since January 2023 and five (5) non-compliances with another requirement since January 2024.
4. Staff's Warning Letter of January 7, 2025 requested NB Power to implement effective interim corrective actions to ensure the prevention of further non-compliances with REGDOC-2.2.4, while work to resolve the remaining NNCs in GPLRPD-2022-15009 continued.
5. NB Power submitted a response to the Warning Letter on January 22, 2025. In the submission, NB Power did not provide any interim corrective actions and stated the following items were completed:
  - a) "As previously identified, a significant contributor to HoW challenges has been the shift scheduling software. This software was successfully repaired and verified in November, as communicated to the CNSC."
  - b) "All safety-sensitive staff have since completed the focused 'Managing Fatigue – Hours of Work' computer based training (CBT), ensuring that all safety-sensitive staff are aware of the HoW restrictions that pertain to them."



6. On February 6, 2025, CNSC staff met with NB Power staff to discuss some of the elements of the Warning Letter response. It was confirmed by the NB Power representative that the software had been updated and completed.
7. As part of follow-up actions, CNSC staff conducted a verification of NB Power staff qualifications within NB Power's Learning Management System (LMS) on February 11, 2025. CNSC staff found that a significant number of workers in SSPs had not completed the HoW training. Later follow-up provided from NB Power indicated that nearly 30% of SSPs at PLNGS had not completed the required training. This contradicted the statements made by NB Power in their response to the Warning Letter.
8. Additional verifications were completed the afternoon of February 11, 2025, by CNSC staff with respect to the Shift Scheduling Software. CNSC staff found that one HoW limit still did not appropriately flag in the program, while two other limits did not flag under certain circumstances.
9. In response to the CNSC follow-up activities, NB Power provided the following corrective actions:
  - a) A banner installed on the scheduling software which list the HoW rules not being properly tracked. The banner also indicates that schedulers must confirm compliance when scheduling.
  - b) Updating the PLNGS HoW job aid used by shift schedulers, which shows the rules that are not being properly tracked in the software.
10. While NB Power has taken various corrective actions since the initial Type I inspection in October 2022, the actions taken have not been fully effective, as demonstrated by the repeated non-compliances with REGDOC-2.2.4.

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 = 3

CNSC identified that NB Power has been in non-compliance since at least October 2022, when the Type I Inspection was completed. Interim actions taken by NB Power have not prevented the occurrence of non-compliances with REGDOC-2.2.4 at PLNGS. The Shift Scheduling Software still demonstrates issues with regards to appropriately creating schedules to ensure compliance with the requirements of REGDOC-2.2.4.

2. Intention or negligence: Assessed score = 2

The actions taken by NB Power in response to the January 7, 2025 Warning Letter were incomplete: Relevant HoW training was not completed by all required NB Power staff, nor was the Shift



Scheduling Software fixed. This contradicts the statements made by NB Power in their January 22, 2025 correspondence to CNSC staff. In addition, NB Power's Corrective Action Program has failed to resolve these continued non-compliances despite many issues being identified by NB Power staff relating to the REGDOC-2.2.4 requirements.

3. Actual or potential harm: Assessed score = 1

While this non-compliance demonstrates a breakdown of NB Power's Human Performance Programs, there does not appear to have been any harm as a result of the non-compliances. CNSC staff contend that the NB Power staff working outside the bounds of REGDOC-2.2.4 were not provided a sufficient opportunity for sleep and recovery from sleep debt. As such, these workers were at an increased risk of experiencing high levels of fatigue and committing fatigue-related errors.

4. Competitive or economic benefit: Assessed score = 0

CNSC did not find any evidence that NB Power gained any competitive or economic benefit as a result of this violation.

5. Efforts to mitigate or reverse effects: Assessed score = 1

The corrective actions taken thus far by NB Power have been ineffective in preventing REGDOC-2.2.4 non-compliances at PLNGS. Follow-up CNSC staff field inspections performed in 2023 and 2024 demonstrated the occurrence of non-compliances while NB Power claimed to have interim corrective actions in place.

In addition, it was determined that recent corrective actions taken by NB Power in response to the January 7, 2025 Warning Letter were incomplete. Observations completed by CNSC staff on February 11, 2025 showed that a significant portion of SSPs at PLNGS did not have the required HoW training. Furthermore, CNSC staff were able to demonstrate that three HoW limits did not appropriately flag in the scheduling program.

Since NB Power was notified of CNSC staff's observation from February 11, 2025, additional corrective actions have been taken to prevent continued non-compliances with REGDOC-2.2.4. CNSC staff will continue to monitor the effectiveness of these additional corrective actions through compliance activities.

6. Assistance to Commission: Assessed score = -1

NB Power has provided reasonable assistance to the CNSC when prompted. This included NB Power performing Extent of Conditions to facilitate determination of the number of non-compliances after CNSC staff's field inspections in 2023 and 2024, and assisting CNSC staff during the February 11, 2025 observations.

7. Attention of Commission: Assessed score = 1



NB Power was found to be non-compliant by CNSC staff as a result of compliance verification activities. CNSC staff found non-compliances with REGDOC-2.2.4 through inspections, prompting NB Power to perform additional follow-up that revealed additional non-compliances. For example, NB Power only performed Extent of Condition verifications after issues were identified in the field inspections performed in 2023 and 2024. NB Power did not self-report the non-compliance.



## 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
<b>C</b>	<b>\$1,000</b>	<b>\$100,000</b>	<b>\$99,000</b>

### (c) Determining factors

Factors	Scale of regulatory significance	Assessed score
1. Compliance history	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
2. Intention or negligence	0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input checked="" type="checkbox"/> +3 <input type="checkbox"/> +4 <input type="checkbox"/> +5 <input type="checkbox"/>	2
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 checked="" type="checkbox"/> 0 <input type="checkbox"/> +1 <input type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	1
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 type="checkbox"/> 0 <input type="checkbox"/> +1 <input checked="" type="checkbox"/> +2 <input type="checkbox"/> +3 <input type="checkbox"/>	1
<b>Total</b>		<b>7</b>
÷ 29 <sup>(1)</sup> [rounded to 2 decimal points]=		<b>0.24</b>
X [difference between category minimum and maximum]		<b>99,000</b>
[total] =		<b>23,760</b>
+ \$ 1000 [minimum for the category] =		<b>24,760</b>

<sup>(1)</sup>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 Friday, April 21, 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](mailto: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

2025-03-20

X



Alexandre Viktorov

Designated Officer

Signed by: Viktorov, Alexandre

Alexandre Viktorov

Designated Officer

Telephone: 613-282-6105

Email: alexandre.viktorov@cnscccsn.gc.ca

20 March 2025

Date



Attachments – Licensing Documentation / Correspondence

1. Letter from E. Lemoine to S. Bagshaw, “Warning Letter – Point Lepreau Nuclear Generating Station – Hours of Work (HoW) exceedances for Safety Sensitive Positions”, January 7, 2025 (e-Doc 7428863)
2. Letter from S. Karivelil to B. Plummer, “Point Lepreau Nuclear Generating Station: CNSC Type I Inspection Report for Implementation of REGDOC-2.2.4, Fitness for Duty: Managing Worker Fatigue: GPLRPD-2022-15009 – New Action Item 221218-26740”, December 21, 2022 (e-Doc 6892897)
3. Letter from B. Plummer to L. Casterton, “NB Power Response to Action Item 221218-26740, Type I Inspection Report: GPLRPD-2022-15009 – Implementation of REGDOC 2.2.4, Fitness for Duty - Managing Worker Fatigue”, March 17, 2023 (e-Doc 7009420)
4. Letter from S. Bagshaw to S. Karivelil, “NB Power Update to Action Item 221218-26740, GPLRPD-2022-15009 – Implementation of REGDOC 2.2.4, Fitness for Duty - Managing Worker Fatigue and 30-Day Prior Notification of a Pending Revision to a Document Referenced in the Point Lepreau Licence Conditions Handbook (LCH-PR-17.00/2032-R000)”, February 29, 2024 (e-Doc 7230954)
5. CNSC Field Inspection Record, PLRPD-2023-FIR-18685, Worker Fatigue (e-Doc 7130513)
6. CNSC Field Inspection Record, PLRPD-2024-FIR-22219, Fitness for Duty (e-Doc 7380223)
7. Letter from S. Bagshaw to E. Lemoine, “Warning Letter – Point Lepreau Nuclear Generating Station – Hours of Work (HoW) Exceedances for Safety Sensitive Positions”, January 22, 2025 (e-Doc 7449622)
8. Email from T. Williams to E. Lemoine, “Summary of Hours of Work Warning Letter Follow-up”, February 11, 2025 (e-Doc 7468156)
9. Email From N. Riecker to T. Williams, “RE: EXT – HoW CBT Completion Verification”, February 18, 2025 (e-Doc 7468165)
10. Email From Z. Beauchemin to T. Williams, “Mitigating Actions”, February 11, 2025 (e-Doc 7468512)