SUBMISSIONS OF THE POWER WORKERS' UNION TO THE CANADIAN NUCLEAR SAFETY COMMISSION

REGARDING REGULATOR DOCUMENT, REGDOC-2.2.1 Human Performance: Managing Worker Fatigue and Hours of Work

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SUBMISSIONS OF THE POWER WORKERS' UNION ON THE DRAFT REGULATORY DOCUMENT 2.2.1, *Human Performance: Managing Worker Fatigue and Hours of Work*

A. Overview

1. The Power Workers' Union ("PWU") has prepared these submissions in respect to the draft regulatory document, REGDOC-2.2.1, *Human Performance: Managing Worker Fatigue and Hours of Work* (the "Draft Regulatory Document"), developed by the Canadian Nuclear Safety Commission (the "Commission"), to provide guidance for managing worker fatigue and hours of work for workers at nuclear facilities. The PWU has reviewed the Draft Regulatory Document, and the 2013 report prepared by Alison Smiley and Christine Rudin-Brown entitled *Review of Criteria for Assessing Shift Schedules in the Nuclear Industry,* referenced in the Draft Regulatory Document.

2. The PWU is a trade union which represents over 15,000 workers employed in Ontario's power sector, most of whom are employed in the nuclear power industry. Its members work throughout Ontario and make up a large majority of employees in the nuclear power industry, including certified staff and other employees at Ontario's nuclear power plants, Darlington Nuclear Generating Station, Pickering Nuclear Generating Stations A and B, and Bruce Power Generating Stations A and B. PWU members also form the majority of workers employed at Ontario's other electrical generating facilities, as well as transmission and local distribution companies.

3. PWU members include employees of licensees who work on safety-related systems or perform safety-related tasks with the potential for immediate and direct effect on safety. As an external stakeholder who represents employees in nuclear facilities, the PWU has an important role to play in ensuring that Ontario's nuclear facilities are safe and secure. The PWU has and will continue to work with licensee employers to develop and implement effective policies to ensure fitness for duty of its employees, including policies that deal with worker fatigue and hours of work.

4. The PWU acknowledges and agrees that performance impairment of workers due to fatigue is an important safety concern, and that workers' schedules are a key

contributor to fatigue. As front line workers, PWU members are acutely aware of the need to be alert and otherwise fit for duty, for their own safety and the safety of others.

5. The PWU commends the Commission for its initiative to address all aspects of human performance and fitness for duty of workers. The PWU supports the Commission for the development of requirements and guidance on worker fatigue which are integrated with a licensee's employee management policies. Such requirements must, of course, be in accordance with the terms of the *Employment Standards Act* ("ESA"), or subject to the express and voluntary exemptions to the ESA.

6. The PWU generally supports the proposed Draft Regulatory Document to monitor and manage worker fatigue. In the PWU's experience, the criteria set out in the Draft Regulatory Document accord with the current practices of licensees. To the extent that the Draft Regulatory Document sets out new evidence-based criteria, the PWU supports the proposed criteria.

B. The PWU's Comments on The Draft Regulatory Document

7. The PWU has the following specific comments on the Draft Regulatory Document:

1. Scope

8. The PWU agrees that the Regulatory Document should apply to all employees who work on safety-related systems or perform safety-related tasks with potential for immediate and direct effect on safety, including contractors and subcontractors.

2. Defining Roles and Responsibilities and Training

9. The PWU supports the clear definition and documentation the roles, responsibilities and training requirements for those involved in managing worker fatigue.

3. Identification and Management of Worker Fatigue

10. The PWU notes that Bruce Power and Ontario Power Generation already have fitness for duty policies in place to identify and address fitness for duty issues, including worker fatigue.

11. The PWU notes that the Draft Regulatory Document requires a process to identify and manage workers "with a condition that causes a higher risk of experiencing fatigue" (s. 3.1.3, p.4). PWU members recognise the importance of self-identifying when they are too fatigued to work safely, or have a condition that is likely to affect cognition or alertness. However, workers have rights to privacy over their personal health information. Any process to identify health conditions that contribute to worker fatigue should require workers to disclose only conditions that have clear association with increased fatigue and only to the extent necessary to address potential fatigue. The disclosure should be made, as per current practice, to the medical divisions of the employer (Health Services/Wellness) as opposed to management, who would only be entitled to disclosure of work restrictions, as opposed a diagnosis or other confidential medical information.

12. The PWU supports the use of restorative napping to manage fatigue, and will work with licensees to develop napping policies that are practical and safe.

13. The PWU acknowledges the prudency in scheduling safety-related tasks outside of peak times for fatigue from midnight to 5 a.m. when possible. However, in some circumstances, safety-related tasks are most appropriately performed during the night, to avoid shutting down areas or to manage staffing requirements. Licensees should be given flexibility to schedule safety-related tasks between midnight to 5 a.m., taking account of worker fatigue and other safety-related factors.

4. Emergencies and Exceptional Circumstances

14. The PWU recognizes that sometimes limits on hours of work and recovery periods must be exceeded due to emergencies and exceptional circumstances as permitted by relevant legislation. Bruce Power and Ontario Power Generation use an auditable system to track workers' hours and to document when and why hours of work

and recovery periods are exceeded. The PWU supports the development of policies for opportunities and accommodations to reduce the likelihood of worker fatigue in such circumstances, including for restorative sleep and delays in completing non-essential maintenance.

5. Limits on Hours of Work and Recovery Periods

15. The limits on hours of work and recovery periods set out in the Draft Regulatory Document are in large part consistent with the current policies of Bruce Power (as set out in policy BP-PROC-0005, r. 11, *Limits to Hours of Work*) and Ontario Power Generation (as set out in policy N-PROC-HR-0002, r.4, *Limits to Hours of Work*).

16. The definition of "night shift" in the Draft Regulatory Document should be clarified. The Draft Regulatory Document defines "night shift" as a "shift that includes time at work between midnight and 5 a.m." which could include afternoon shifts that end after midnight, but before 5 a.m. (ie. 10-hour afternoon shifts from 2pm to 2am). The PWU prefers the definition of "night shift" set out in the Smiley and Rudin-Brown report (p. 5) as " shift including the period between midnight and 5 a.m."

17. The PWU notes that the proposed limits on hours of work in a 6-week period are based on an average 52-hour work week, and in a 12-month period are based on an average 48-hour work week (with annual vacation). These restrictions may be impractical. Smiley and Rudin-Brown, authors of *Review of Criteria for Assessing Shift Schedules in the Nuclear Industry,* suggest that these limits are reasonable, but acknowledge that there is limited empirical data to require such limits. The PWU would welcome further consultation by the Commission with stakeholders on these proposed limits.

18. The PWU notes that both Bruce Power and Ontario Power Generation schedule 'supernumerary' shifts as part of a rotating work schedule. These shifts constitute a block of five 8-hour days treated as a single sequence of day shifts, and may be worked in a combination of hours per day, or days on and off that do not exceed a 12-hour day, 5 consecutive days, 60 hours in a pay period. As employees may become fatigued with rotating shift work, employees are subject under the licensees' policies to recovery

periods as equivalent to working a 12-hour shift. A restriction that prescribes a 36-hour recovery period following a supernumerary shift block may not be necessary or practical with respect to managing fatigue. The PWU recommends that the Commission consult further with stakeholders and experts regarding the appropriate recovery period for workers who are scheduled to work supernumerary shifts.

19. The Draft Regulatory Document permits shifts up to 16 hours, where necessary. However, the guidelines on recovery periods refer only to shift blocks, based on 8, 10 or 12- hour shifts. Worker fatigue will increase after working a 16-hour shift, and may require additional recovery time. The PWU recommends that the Commission consider providing guidance to licensees, based on empirical research, regarding recovery periods where a worker has completed a 16-hour shift, as compared to a 12-hour shift.

C. Conclusion

20. The PWU appreciates the opportunity to provide its comments in respect of Draft Regulatory Document, and would welcome the opportunity to participate in further consultation on issues of worker fatigue and fitness for duty.