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Date: 2025-05-08

**Written Submission from the  
Society of United Professionals**

**Mémoire de la  
Society of United Professionals**

In the matter of the

À l'égard d'

**Ontario Power Generation Inc.**

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Application to renew power reactor  
operating licence for the Darlington  
Nuclear Generating Station

**Ontario Power Generation Inc.**

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Demande concernant le renouvellement  
du permis d'exploitation d'un réacteur de  
puissance pour la centrale nucléaire de  
Darlington

**Commission Public Hearing  
Part-2**

**Audience publique de la Commission  
Partie-2**

June 24-26, 2025

24-26 juin 2025



**SOCIETY *of*  
UNITED PROFESSIONALS**  
IFPTE 160

May 8, 2025

## RENEWAL OF DARLINGTON NUCLEAR GENERATING STATION (DNGS) LICENCE TO OPERATE 2025-H-02

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The Society of United Professionals represents over 10,000 engineers, scientists, supervisors, and other professionals in Canada's energy and legal sectors. For over 80 years, our organization has represented professionals in Ontario's electricity sector, including workers in Ontario's nuclear generating stations in Pickering, Darlington, and Bruce County.

Our members work in every aspect of the electricity industry. They are involved in generation, transmission and distribution of electricity, management of the electricity system, regulation and enforcement of standards, and management of the electricity market. They are employed as first-line managers and supervisors, professional engineers, scientists, information systems professionals, economists, auditors and accountants, as well as many other professional, administrative, and associated occupations.

The Society's members are knowledge workers who take great pride in exercising their civic, social, and professional responsibilities. As a union, we stand behind our members' professionalism, integrity, and commitment to excellence in all areas, particularly workplace safety, public health, and environmental sustainability.

Advocating for safe and healthy operation of our nuclear workplaces is one of the Society's highest priorities as a union. Our members work inside of, and in close proximity to, nuclear facilities, and they would be among the first in harm's way if the highest standards of safe operation, and occupational health and safety are not adhered to. They and their families are residents of Clarington and Durham and Port Elgin and they are very conscious of the importance of ensuring a safe and healthy environment in the areas where they live.

It is the Society's commitment to workplace safety that is the primary cause of concern regarding the proposed 30-year licensing period, a significant departure from the ten-year operating licenses granted to nuclear generating stations in the past.

The Society believes the licensing process provides critical, reliable accountability points between the regulator and the applicant, ensuring continued safe operation of the generating station. The Society has



opposed extending the licensing period from five years to ten years in the past, because of how important the licensing process is in providing needed transparency and accountability. The Society acknowledges that CNSC oversight will continue during the term of the proposed licensing period, but is concerned about the loss of a more frequent oversight mechanism.

While the Society supports the renewal of the operating license for the Darlington Nuclear Generating Station, our primary concern is with the unprecedented 30-year licensing period. We acknowledge a desire for regulatory stability, and so the Society recommends a 15-year licensing period.

Additionally, if the licensing period is to be extended beyond the current 10-year period, the Society strongly recommends the commission increase the frequency of the Periodic Safety Reviews, to once every five years, instead of the current 10-year PSR cycle.

## CLIMATE CHANGE

In 2020, OPG released its first-ever climate change plan. The four-phase action plan contains ambitious goals that guide the promise to be a catalyst for efficient, economy-wide decarbonization and economic renewal, while protecting the environment. The plan commits to:

- Add clean power.
- Continue to invest in all generating asset-based climate vulnerabilities.
- Innovate through new technology investments such as Small Modular Reactors (SMRs).
- Continue to lead decarbonization in Ontario and share expertise<sup>1</sup>.

Catastrophic climate change is the greatest threat facing humanity, and we have already begun to feel its effects. If we are to mitigate the impact of climate change on future generations, we need to end our reliance on fossil fuels. This requires electrifying the major sectors of our economy, and powering electrification with emissions-free electricity generation. We will also need to ensure climate change resilience to anticipate, prepare for, and respond to the impacts of climate change.

As requested by CNSC staff during the review of the licence application, OPG has committed to conduct a climate change risk assessment of the Darlington NGS design against the available climate projections for various climate change sensitive natural external hazards and informed CNSC staff of their planned approach for this assessment in December 2024. The assessment is expected to be completed in 2027 and will determine the risk and impact on the safety of SSCs

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<sup>1</sup> Darlington NGS – Application for Renewal of the Darlington Nuclear Generating Station Power Reactor Operating Licence 13.03/2025, CD# NK38-CORR-00531-25450 P, May 30, 2024, <https://api.cnscccsn.gc.ca/dms/digital-medias/Application-for-Renewal-of-the-Darlington-Nuclear-Generating-Station-Power-Reactor-Operating-Licence-13-03-2025.pdf/object>



due to climate change during the proposed operational life and ensure that the plant continues to operate safely while protecting the environment and the public. CNSC staff will review this assessment to confirm it is aligned with industry best practices.<sup>2</sup>

The impact of climate change is accelerating, making it more difficult for human societies and the natural world to adapt<sup>3</sup>. Performing this assessment is a good first step but will need to be reassessed at defined intervals (approx. every 5-7 years<sup>4</sup>) to ensure it remains valid and Darlington NGS design will be adapted if required in sufficient time to address.

OPG is aware that natural external hazards, e.g., severe weather, may become more significant during the operating life of Darlington NGS due to climate change. OPG revisits the Hazard Screening Assessment as the initial step for its periodic PSA update as per regulatory requirements. OPG indicates “This is sufficient to capture the incremental effects of climate change as an input to the PSA updates”.<sup>1</sup>

Society believes this is sufficient if OPG can confirm there is a requirement by governance to use climate change projection data versus projected historical data, as was done in the past. As climate change is happening at an accelerated pace compared to the natural climate fluctuations in the past.

Considering the uncertainty of climate change resiliency and adaptation measures, and its impact on DNGS, a 15-year licensing period, with 5-year periodic safety reviews will provide critical oversight to ensure the continued safe operation of the generating station.

## PUBLIC HEALTH

- The Society has worked with the CNSC and OPG for decades to ensure Public Health and Safety in our operating stations and surrounding communities. We are confident that the CNSC and OPG will continue to maintain high standards during the new licensing period, through steps such as: CNSC conduct regular regulatory oversight through multiple inspection types, continuous surveillance and monitoring, scheduled and unscheduled

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<sup>2</sup> Darlington NGS – Notice of Participation at CNSC Public Hearing 2025-H-02 and Written Submission in support of the renewal of the Darlington Nuclear Generating Station Power Reactor Operating Licence, CD# NK38-CORR-00531-25966 P, February 24, 2025, <https://api.cnscc-csnc.gc.ca/dms/digital-medias/CMD25-H2-1.pdf/object>

<sup>3</sup> The Royal Society, 6. Climate is always changing. Why is climate change of concern now?, March 2020, <https://royalsociety.org/news-resources/projects/climate-change-evidence-causes/question-6/>

<sup>4</sup> Government of Canada, The Coupled Model Intercomparison (CMIP) and the Intergovernmental Panel on Climate Change (IPCC), 2023-10-03, <https://royalsociety.org/news-resources/projects/climate-change-evidence-causes/question-6/>



reporting, and performance indicators.

- CNSC promote compliance through graduated methods: notices of non-compliance, warning letters, administrative monetary penalties, etc. Non-compliances are tracked to completion.
- Safety and Control Areas are Satisfactory only two were below expectations in Security for 2021 and 2022 now showing Satisfactory in 2023. No 2024/25 data was provided by CNSC for this.
- OPG maintains an emergency management program, maintains appropriate equipment for emergency and fire response, maintains an emergency and fire response plan, conducts drills and exercises including full scale exercises, and the public address system is being modernized.<sup>5</sup>

While the Society believes that the applicant has a strong record of ensuring public health and safety which warrants a renewal of the operating license, we once again re-iterate our strong preference for an extended licensing period of 15 years, with 5-year PSRs, to ensure continued oversight on these issues.

## WORKPLACE SAFETY

Safety and Control Area (SCA) performance show that Radiation Protection and Conventional Health and Safety are both satisfactory up to 2023. OPG maintains a radiation protection program that is effective in protecting workers and did not exceed the regulatory dose limits.<sup>5</sup> But Society has concerns with a number of conventional safety incidents that have happened in 2024 and 2025 at the DNGS, Darlington New Nuclear Project (DNNP) and Refurbishment Projects. The most significant is a critically injured worker transported to hospital from DNNP site on April 9, 2025.<sup>6</sup>

A highlighted snapshot of sizeable incidents below emphasizes OPG's need to refocus on workplace safety:

- DNNP – SMR – (Owner Only Project) – On Wed April 9, 2025 - A worker on the Darlington New Nuclear Project construction site sustained an injury and was transported to hospital for medical treatment where they continue to receive care.

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<sup>5</sup> CNSC Staff Presentation, Darlington Nuclear Generating Station 2025 Licence Renewal, February 25, 2025, <https://api.cnscccsn.gc.ca/dms/digital-medias/CMD25-H2-A-eng.pdf/object>

<sup>6</sup> Daily Commercial News by Construct Connect, GoFundMe campaign set up for worker injured at Darlington New Nuclear Project, April 15, 2025, <https://canada.constructconnect.com/dcn/news/ohs/2025/04/gofundme-campaign-set-up-for-worker-injured-at-darlington-new-nuclear-project>



- Flash Report – Notice No. 25-0005 – Enterprise Projects – Darlington Nuclear Generating Station – Refurbishment Project U4 Vault 100el.- Employee mistakenly cut live 600v cable.
- Flash Report – Notice No. 25-0004 - Enterprise Projects – Nuclear – Flash Report – Notice No. 25-0003 Darlington Refurb DNRU4 - U2 100 el. Col. L7 Fabrication Area – During grinding and welding activities, pipe spool dislodged from rotator tool.
- Flash Report – Notice No. 25-0003 - Enterprise Projects – Nuclear Sustainability Services (NSS) - Darlington Used Fuel Operations – Unplanned Electrical Occurrence.
- Flash Report – Notice No. 24-0016 - Enterprise Projects – Nuclear – Darlington Refurbishment – Unit 1, r—208, 107.5 Elevation – Loss of control load during Equipment assisted material handling.
- Flash Report – Notice No. 24-0005 - Enterprise Projects – Darlington Site – Unit 3 Boiler # 2 – Upper Manway Platform - Yoke/boom assembly detached and fell off the manipulator arm.
- Flash Report – Notice No. 24-0003 - Enterprise Projects – Nuclear – Darlington Refurbishment – Unit 1 Elevation 87.7 Worker fell traversing around / over process piping.

The Society continually works with the applicant to address workplace health and safety issues. However, the number of safety incidents that have occurred in the past two years at DNGS is of great concern to the union. The Society believes that the safe operation of our generating stations must include not only radiation safety, but also conventional workplace health and safety, and it is the recent rise in conventional health and safety issues that give us pause in supporting a 30-year license renewal.

The Society's priority will remain the safe working conditions of our membership. As such, we strongly recommend a 15-year license renewal, with 5-year PSRs, to ensure consistent oversight in the safe operation of DNGS.

## INDIGENOUS RELATIONS

The Society notes that CNSC has added a new licence condition G.7 that introduces requirements on reporting engagement activities to the CNSC<sup>5</sup>. Through the inclusion of Indigenous engagement reporting as a part of the licence to operate, the regulator is provided with a mechanism of regulatory oversight to ensure Indigenous Nations are engaged in a meaningful way that protects the rights and interests of Indigenous Nations. The Society believes that continued work towards reconciliation is incumbent on all of us, and meaningful engagement with the local Indigenous communities whose land and water the DNGS's site belong to must be a necessary condition.



## CULTURAL CONTINUITY

The Society has seen an increase in cost-cutting measures while the company continues to be profitable. The use of cost-cutting measures weakens both the quality of employee–management relations and the level of employees’ trust in management, leading to an increase in employee grievance filing behaviour<sup>7</sup>. The Society currently has a significant number of workplace grievances with the employer.

Reduction in training while OPG is hiring hundreds of new employees means that new employees will not have the same level of knowledge. When organizations encounter financial strain, decision-makers often prioritize immediate, tangible returns. Learning and development initiatives are frequently viewed as expenses rather than investments, primarily because their value is harder to quantify compared to more direct revenue-generating functions. Organizations that do not prioritize learning and development risk having decreased employee engagement, higher turnover rates, skills gaps and innovation stagnation.

The rate of leadership turnover has increased (through firing, quitting and reassignment) along with numerous individuals assigned to manage staff without supervisory experience. Common fears among organizational leaders significantly impact decision making and the overall organizational culture. The fear of failure can lead to avoidance behaviours within an organization. This fear often originates from a concern over the potential for financial and social implications of failure<sup>8</sup>.

For example, since January 2023, three open issues have stalled the Joint Working Committee and its appeal body, the Tripartite Advisory Committee:

1. Work Protection Code – OPG moved control of the Work Protection Code from Corporate Health & Safety to Centre-led Functional Area Management without updating the 2019 Corporate Code Advisory Group terms or getting union sign-off.
2. “Owner-Only” boundaries – the Owner Only rules conflict with the Corporate Work Protection Code (OPG-STD-0126) and have not been processed as formal Code departures.
3. Event-rating downgrades – After adopting the industry standard, INPO 19-002 flow-chart, severe events have been routinely downgraded; a Corporate Code Advisory Group fix was rejected.

<sup>7</sup> Journal of Business Research, Cost-cutting actions, employment relations and workplace grievances: Lessons from the 2008 financial crisis, November 22, 2022, <https://www.sciencedirect.com/science/article/pii/S0148296322006646>

<sup>8</sup> MDPI, Administrative Sciences, Understanding and Mitigating Leadership Fear-Based Behaviours on Employee and Organizational Success, September 16, 2024,



All three items still appear on the 24 Mar 2025 JWC action log after seven Joint Working Committee meetings and two Tripartite Advisory Committee escalations.

A corporate assessment took place in December 2023 with the following insight: The onboarding of many new engineering staff, coupled with vacant and inexperienced first line manager positions, is creating an environment for risk for the organization due to lack of technical knowledge requiring more senior leaders to step out of their oversight role to provide direct supervision and guidance.

The Society has raised concerns with OPG not filling ongoing roles with regular employees, and instead using rotations and temporary workers to avoid posting and filling regular positions. This results in more handoffs, less consistency, and fewer experienced people doing this important work.

Additionally, we are entering a period of intense growth for the nuclear industry, and the electricity industry as a whole. This is leading to increased pressure from stakeholders to expedite planning and construction, as well as creating a significant demand for skilled labour.

The Society is concerned that a 30-year licensing period will extend the operating license through the boom period in new generation construction, sharp rise in demand for new workers, as well large-scale retirement of the existing workforce. With so much change in the industry during the proposed licensing period, the Society does not believe it is prudent to reduce oversight for such a long period of time.

## CONCLUSION

The Society is grateful for the opportunity to intervene on OPG's proposed licence renewal for DNGS.

The Society has concerns with DNGS being granted a 30-year operating licence. Although OPG is supportive of decennial reviews throughout the 30-year licence term, where Rights Holders and the public will have the opportunity to be heard before the Commission<sup>9</sup>, we are not assured this includes the Society. Furthermore, it is a long period of time between reviews, and much can change in 10 years. In addition, a 30-year licence is a significant change to prior license durations.

DNGS is heading into a complicated operating situation with all four units operating starting in 2026 after their refurbishment and it has been more than 10 years since the last time all four units were

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<sup>9</sup> Darlington NGS – Additional Update in Support of the Power Reactor Operating Licence Renewal Application, NK38-CORR-00531-26049, March 26, 2025, <https://api.cnsccs.gc.ca/dms/digital-medias/CMD25-H2-1B.pdf/object>



operating. Significant work is required to ensure DNGS is resilient to the effects of climate change over the next 10, 20 and 30 years. Also, the culture at OPG has recently had significant changes from how it has been historically run and there needs to be a refocus on workplace safety to ensure OPG continues to effectively operate DNGS.

The Society does however, support a 15-year license with 5-year review periods as this is deemed a reasonable period of time, 1) to observe DNGS operations, climate change resiliency plans and impacts, if any, due to changes to OPG's culture and workplace safety, and, 2) to be able to raise said issues with OPG and CNSC.

Sincerely,

Rebecca Caron  
President  
The Society of United Professionals