















September 12, 2011

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Dear Sirs:

Re: Deficient Environmental Assessment of Darlington New Nuclear Project

On August 25, 2011, the Joint Review Panel ("JRP") for the proposed Darlington New Nuclear Project ("Project"), established pursuant to the *Canadian Environmental Assessment Act*

("CEAA"), submitted its Environmental Assessment ("EA") Report to the Minister of the Environment.

Despite identifying a number of significant unresolved issues and gaps in information needed to fully assess the Project and its impacts, the JRP nevertheless opined that the Project is not likely to cause significant adverse environmental effects, provided that the mitigation measures proposed and commitments made by OPG and the 67 recommendations contained in the EA Report are implemented.

However, for the reasons described below, it is our collective view that the JRP process, and the resulting JRP Report to the Environment Minister, did not comply with the requirements of the CEAA, the Environmental Impact Statement ("EIS") Guidelines for the Project, the Agreement establishing the JRP, and the Terms of Reference for the review.

Accordingly, it is our respectful submission that Cabinet and the Responsible Authorities are not in a position to make an informed or lawful "course of action" decision about the Project pursuant to s.37 of the CEAA. As a matter of law, neither Cabinet nor the Responsible Authorities have yet acquired the necessary jurisdiction under the CEAA to approve the Project, or to grant authorizations in relation to the Project, in the absence of an EA that fully meets the legal requirements of the CEAA, the Agreement, and the Terms of Reference.

In this case, based on the significant scientific, technical, procedural, and legal deficiencies which have plagued the environmental assessment process to date, we submit that Cabinet and the Responsible Authorities cannot and should not approve the Project at this time as there is no rational basis or evidentiary record upon which to conclude that the Project is not likely to result in significant adverse environmental effects. Unless and until the inadequacies in the JRP process have been fully addressed, it is premature for Cabinet or the Responsible Authorities to exercise any powers or perform any functions that would permit the Project to be carried out, in whole or in part.

In light of these EA inadequacies, we hereby request the Environment Minister and the Canadian Nuclear Safety Commission ("CNSC") to direct the JRP to reconvene for the purposes of continuing and properly fulfilling its mandate, duties and responsibilities under the CEAA, the EIS Guidelines and JRP Agreement, and the Terms of Reference.

Some of the fundamental problems associated with the JRP process and the EA Report include, but are not necessarily limited to, the following:

• Scientific Deficiencies in Impact Assessment: Without knowing the reactor design or cooling water technology to be employed, it is impossible to meaningfully and effectively assess the potential for significant adverse environmental effects to result from the Project since each reactor design and technology option has very different environmental impacts. Other deficiencies in terms of information and scientific assessment include a failure to meaningfully examine the issue of radioactive waste to be produced by the Project throughout its lifetime. Without identifying technology design choices and determining how radioactive waste will be managed in the long-term, there is no basis for the Panel's

conclusion that the Project is not likely to result in significant adverse environmental effects.

- Unfair inclusion of additional reactor design following public participation process: Compounding the above-noted problems associated with OPG's failure to identify a reactor design is the fact that following the public consultation period on OPG's EIS, in which three reactor designs were identified, an additional reactor design (the CANDU-6) was then included within the scope of the environmental assessment. Adding a fourth potential reactor design without notice and at the end of the public review and comment period on OPG's EIS rendered the public consultation process on the EIS essentially meaningless, and deprived our organizations and other stakeholders of the opportunity to meaningfully review all design options under consideration. Furthermore, the EA Report appears to leave the door open to other unidentified reactor designs to be employed, suggesting that so long as they are not "fundamentally different" from the technologies bounded by the "plant parameter envelope", a new EA will not be required.
- Artificially narrow project scope: One way in which the EA was improperly limited in its scope is that inadequate consideration was given to cumulative effects from refurbishment activities proposed at the same site and during the same timeframe as the proposed new-build Project. This is directly contrary to the CEAA's requirements that "any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out" be considered (s. 16(1)(a)), and to conduct an environmental assessment "in respect of every construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work that is proposed by the proponent or that is...likely to be carried out in respect of that physical work" (s.15(3)).
- Project "need": The CEAA mandates consideration of matters relevant to a panel review, including "the need for the project...that the responsible authority or...the Minister after consulting with the responsible authority, may require to be considered." Indeed, the EIS Guidelines for the Project require OPG to "clearly describe the need for the proposed new nuclear power plant" in a manner that establishes the "fundamental justification or rationale for the project" and provides context for the consideration of project alternatives. Despite these requirements, OPG took the position during the panel review process that it did not have an obligation to establish the need for the Project beyond stating that its sole shareholder the Government of Ontario issued a Directive to OPG to begin a federal approval process for a new nuclear unit at an existing site in Ontario. This fundamental lack of information and analysis from the proponent on the paramount issue of "need" was not cured by the JRP, and was not remedied by the Ministry of Energy's post-hearing disclosure of general information regarding the government's current energy preferences. The panel cannot defer to the wishes of the Proponent's owner in deciding whether the necessary "need" exists for the project.
- **Project alternatives:** The CEAA requires consideration of "alternatives to the project" and technically and economically feasible "alternative means of carrying out the project" during the environmental assessment process (s.16). Among other things, the EIS Guidelines required OPG to analyze alternatives to the project and functionally describe

different ways to meet the project's need and achieve its purpose. In light of its position that it did not have to demonstrate the need for the Project beyond the Government's above-noted Directive, OPG also failed to adequately evaluate functionally different means of meeting the alleged need for up to 4800 MW of new electrical generation capacity. In addition to concerns raised by participants in the EA process, the JRP itself at page 44 of its Report acknowledges that Ontario's energy policy could be revised in the future such that nuclear baseload capacity is reduced and "it would be possible to develop a different portfolio within the competence of OPG". Indeed, the JRP acknowledges in its Report the desire expressed by participants for a re-examination of the Ontario energy alignment, particularly in light of the fact that the Government's Directive to OPG was developed prior to the Fukushima Daiichi nuclear accident – an event which has increased global concerns about nuclear power generation.

- **Procedural Fairness:** As we have consistently noted, the effectiveness, credibility and legitimacy of JRP hearings under the CEAA are largely dependent on individuals and groups being accorded sufficient procedural rights to ensure full, meaningful, and comprehensive public involvement in the hearing process. Because the Project will have a significant impact on the interests of the public and the environment at large, a high level of procedural rights should have been accorded during the hearing process. This requirement was not met for numerous reasons, including the inability of participants to cross-examine or put questions directly to witnesses and presenters, unnecessarily tight restrictions on the length of written and oral submissions by participants, and the inability of participants to ask questions regarding the qualifications of witnesses purporting to provide "expert" evidence regarding the Project and its potential effects. For example, in response to an Intervener's question regarding the qualifications of an individual testifying on behalf of the CNSC, the Chair of the Panel explicitly stated as follows: "We're not a court and we're not asking for credentials." On several occasions, the Chair of the Panel indicated that the rules of court were not relevant for the Panel's purposes, suggesting that the JRP misunderstood its own procedural fairness obligations during the hearing process.
- Joint Review Panel failed to discharge its duty to gather information: Pursuant to s. 34 of the CEAA, a review panel must "ensure that the information required for an assessment...is obtained and made available to the public." As outlined above, the Project proponent took an unduly limited approach to the preparation of its EIS and participation in the panel hearing process. In light of the inadequate EIS, the Panel had a statutory duty to gather further evidence as necessary to conduct the review consistent with the requirements of the CEAA, the Agreement and the Terms of Reference. However, the JRP failed or refused to do so, and purported to address the extensive information gaps with recommendations aimed at post-EA information-gathering, analysis, planning and mitigation in many key areas (i.e. on-site soils analysis; detailed preliminary decommissioning plan; financial guarantees; follow up/adaptive management plan for air contaminants; detailed acoustic assessment; detailed site geotechnical investigation; baseline water/sediment quality data; analysis of site layout scenarios; follow-up/mitigation program for terrestrial wildlife; data collection/management plan for species at risk; assessment of seismic hazards; traffic management plan; enhanced groundwater monitoring program; on-site pond protection; formal quantitative cost-

benefit analysis of cooling water systems; detailed assessment of effluent releases; stormwater testing program; assessment of contaminant transport in groundwater; modelling of dewatering activities at nearby quarry; assessment/management of hazardous substance releases; adaptive management plan for bank swallows; surface water risk assessment/action plan; mitigation/monitoring of permanent aquatic effects; contingency plan for flooding/extreme weather; climate change modelling; drought analysis; algal hazard assessment/adaptive management; provisions for on-site storage of used nuclear fuel; provisions for on-site storage of low/intermediate level waste; assessment of off-site health/environmental effects of a severe accident; evaluation of cumulative effects of common-cause severe accidents; ambient water/sediment monitoring; expanded radiological environmental monitoring program; monitoring/mitigation of adult fish; measures to limit tritium releases into drinking water supplies; monitoring of cumulative aquatic effects; follow-up program for soil quality; ambient air quality monitoring; fish impingement/entrainment monitoring/mitigation measures; adult fish community surveys; baseline whitefish data; additional quantitative analysis regarding transportation impacts; railway risk assessment; follow-up/adaptive management program regarding boating impacts; enhanced resolution thermal plume modelling; follow-up program regarding bird impacts; etc.). In our view, the results of this extensive (and long overdue) work must be obtained and subjected to public review/comment well before the JRP (or Cabinet and the Responsible Authorities) can draw any meaningful conclusions about the likelihood or significance of environmental effects (including cumulative effects) associated with the Project's full life cycle. It is highly improper to conduct a CEAA review of a Project when virtually all of the technical detail and substantive analysis of the Project and its effects is left for other future processes and decision-makers. If this future information-gathering demonstrates the potential for significant environmental effects it will be too late since there is no contingency that would send it back to the JRP. In short, Cabinet and the Responsible Authorities should not accept or endorse the "develop now, plan later" approach of the JRP's EA Report.

The problems associated with the EA of the Project are set out in further detail in the final written submissions of a number of organizations, including the Canadian Environmental Law Association, Greenpeace, and Lake Ontario Waterkeeper as part of the Panel's hearing process. We wish to draw your attention to these submissions, hard copies of which are enclosed. Electronic copies are available online at: http://www.ceaa.gc.ca/050/05/documents-eng.cfm?evaluation=29525&type=2. It is important that public interest perspectives such as these guide your Government's consideration of the Panel's Report, and that these perspectives inform your Government's decision with regard to whether or not the requirements of the CEAA have been met in this case. Indeed, the 67 recommendations contained in the EA Report demonstrate that the Panel itself recognized the merit of many of the concerns contained in these submissions regarding gaps in information required to assess the likely environmental effects of the Project.

In light of the precautionary principle, the goal of sustainable development, and the commitment to facilitating public participation enshrined in the CEAA and the above-noted legal, procedural, and scientific deficiencies in the EA process, we respectfully submit that it would be imprudent, unlawful and contrary to the public interest for Cabinet or the Responsible Authorities to exercise

any power or perform any duty or function that would allow the Project to be carried out, in whole or in part, at this time.

As noted above, it is our request that the Environment Minister and the CNSC direct the JRP to reconvene in order to properly fulfill its statutory mandate under the CEAA and its obligations under the EIS Guidelines and JRP Agreement, as well as the Terms of Reference. Could you kindly advise us in writing, by September 20 2011, whether the Environment Minister and CNSC agree to provide such directions to the JRP?

We look forward to your timely reply to this urgent request. Please do not hesitate to contact us if you have any questions about the points contained in this letter or any other matter related to the EA of the Project.

Yours truly,

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