Federal Court of Appeal | Cour d'appel fédérale

Date: 20150910

Dockets: A-282-14
A-283-14
A-285-14

Citation: 2015 FCA 186

CORAM: **TRUDEL J.A.**
RYER J.A.
RENNIE J.A.

Docket: A-282-14

BETWEEN:

ONTARIO POWER GENERATION INC.

Appellant

and

GREENPEACE CANADA, LAKE ONTARIO WATERKEEPER, NORTHWATCH and CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Respondents

AND BETWEEN

ONTARIO POWER GENERATION INC.

Appellant

and

GREENPEACE CANADA and CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Respondents

Docket: A-283-14

AND BETWEEN:

CANADIAN NUCLEAR SAFETY COMMISSION

Appellant

and

GREENPEACE CANADA, LAKE ONTARIO WATERKEEPER, NORTHWATCH and CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Respondents

Docket: A-285-14

AND BETWEEN:

ATTORNEY GENERAL OF CANADA, MINISTER OF THE ENVIRONMENT, MINISTER OF FISHERIES AND OCEANS and MINISTER OF TRANSPORT

Appellants

and

GREENPEACE CANADA, LAKE ONTARIO WATERKEEPER, NORTHWATCH and CANADIAN ENVIRONMENTAL LAW ASSOCIATION

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and

AND BETWEEN

ATTORNEY GENERAL OF CANADA

Appellant

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GREENPEACE CANADA and CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Respondents

Heard at Toronto, Ontario, on June 2, 2015.

Judgment delivered at Ottawa, Ontario, on September 10, 2015.

REASONS FOR JUDGMENT BY: TRUDEL AND RYER JJ.A.

DISSENTING REASONS BY: RENNIE J.A.

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REASONS FOR JUDGMENT

RENNIE J.A. (dissenting)

[1] These are consolidated appeals from a decision of the Federal Court (2014 FC 463) that granted, in part the respondents' judicial review application of an environmental assessment conducted by a Joint Review Panel (the Panel) appointed pursuant to the *Canadian Environmental Assessment Act*, SC 1992, c 37 (the Act).

[2] For the following reasons I would set aside part of the Federal Court decision, and remit to the Panel the consideration of the environmental implications of hazardous emissions. A copy of these reasons shall be placed in the Court files with respect to A-283-14 and A-285-14 as reasons therein in accordance with the Order of this Court dated July 23, 2014.

I. Background

A. *The project*

[3] In June 2006, the Ontario Ministry of Energy directed Ontario Power Generation (OPG) to begin the approvals process for the installation and operation of new nuclear power generation units at the existing Darlington Nuclear Generating Station, located on the Lake Ontario shoreline in Clarington, Ontario. Pursuant to this directive, OPG submitted an application to the Canadian Nuclear Safety Commission (CNSC) in September 2006 for a license to prepare the Darlington site for construction of up to four new nuclear reactors (the Project).

[4] The Project consists of site preparation; construction of the four new reactors and associated facilities; the operation and maintenance of the reactors and related facilities for approximately 60 years, including the management of conventional and radioactive waste, and the decommissioning of the nuclear reactors and abandonment of the site.

B. *The legislative context*

[5] Nuclear power plants, defined under the *Nuclear Safety and Control Act*, SC 1997, c 9 *(NSCA)* as Class I nuclear facilities, undergo a staged licensing process. Each of the five phases in the lifecycle of the power plant (site preparation, construction, operation, decommissioning and abandonment) requires a licence from the CNSC under subsection 24(2) of the *NSCA*. In addition to the licensing requirements under the *NSCA*, the Project also requires approval under the *Fisheries Act*, R.S.C. 1985, c F-14 and the *Navigation Protection Act*, R.S.C. 1985, c. N-22. These federal licencing requirements trigger the requirement of an environmental assessment under the Act.

[6] A federal authority who has a responsibility to ensure that an environmental assessment (EA) is carried out under the Act becomes a "responsible authority" pursuant to subsection 11(1). The responsible authority (RA) must ensure that an EA is conducted "as early as is practicable in the planning stages of the project and before irrevocable decisions are made". The RAs for the Project were the CNSC, the Department of Fisheries and Oceans, and Transport Canada.

[7] Pursuant to paragraph 15(1)*(b)* and subsection 33(1) of the Act, the Minister of the Environment may refer an EA to a review panel. Where a project requires assessments and reviews by multiple federal authorities, the Act allows the Minister to enter into an agreement with those authorities to establish a joint review panel and to fix the terms of reference. The review panel's terms of reference establish the scope of the project for EA purposes. In the present case, a joint review panel was established to conduct both an EA under the Act, and also serve as a CNSC panel to determine OPG's construction license application under the *NSCA*.

[8] Subsection 16(1) of the Act enumerates the mandatory factors that must be considered by every review panel when conducting an EA:

16.(1) Every screening or comprehensive study of a project and every mediation or assessment by a review panel shall include a consideration of the following factors:	16. (1) L'examen préalable, l'étude approfondie, la médiation ou l'examen par une commission d'un projet portent notamment sur les éléments suivants :
(a) the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and 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;	*a)* les effets environnementaux du projet, y compris ceux causés par les accidents ou défaillances pouvant en résulter, et les effets cumulatifs que sa réalisation, combinée à l'existence d'autres ouvrages ou à la réalisation d'autres projets ou activités, est susceptible de causer à l'environnement;
(b) the significance of the effects referred to in paragraph (a);	*b)* l'importance des effets visés à l'alinéa a);
(c) comments from the public that are received in accordance with this Act and the regulations;	*c)* les observations du public à cet égard, reçues conformément à la présente loi et aux règlements;
(d) measures that are technically and economically feasible and that	*d)* les mesures d'atténuation réalisables, sur les plans technique

would mitigate any significant adverse environmental effects of the project; and	et économique, des effets environnementaux importants du projet;
(e) any other matter relevant to the screening, comprehensive study, mediation or assessment by a review panel, such as the need for the project and alternatives to the project, that the responsible authority or, except in the case of a screening, the Minister after consulting with the responsible authority, may require to be considered.	*e)* tout autre élément utile à l'examen préalable, à l'étude approfondie, à la médiation ou à l'examen par une commission, notamment la nécessité du projet et ses solutions de rechange, — dont l'autorité responsable ou, sauf dans le cas d'un examen préalable, le ministre, après consultation de celle-ci, peut exiger la prise en compte.

[9] The duties of a review panel are elaborated upon in section 34 of the Act. Specifically, a review panel is required to gather information, ensure that information is made available to the public, hold hearings, and prepare a report setting out "the rationale, conclusions and recommendations relating to the environmental assessment of the project, including any mitigation measures and follow-up programs".

[10] Finally, following the submission of a report by a review panel, the RAs and other federal authorities involved in the EA prepare a response for consideration by the Governor in Council. Pursuant to paragraph 37(1.1)*(c)*, if the Governor in Council approves the response to the review panel's report, the RAs are then in a position to "take a course of action" that conforms to the decision of the Governor in Council. The course of action depends on whether the project is likely to cause significant adverse environmental effects, and, if so, whether those effects can be justified in the circumstances. If the project is not likely to cause significant adverse environmental effects, and taking into account the implementation of any mitigation measures

the RA deems appropriate, then the RA "may exercise any power or perform any duty or function that would permit the project to be carried out in whole or in part."

[11] As I will discuss, whether the Panel report meets or discharges the obligations in section 16 lies at the core of this appeal.

C. *EA process for the Project*

[12] On January 8, 2008 the President of the CNSC requested that the Minister refer the Project to a review panel, and on March 20, 2008, a joint review panel was established given that the Project required the involvement of both the Canadian Environmental Assessment Agency (the Agency) and the CNSC (the Panel).

[13] After a public review period, the CNSC and the Agency published the Panel Agreement and the Environmental Impact Statement Guidelines (the EIS Guidelines). The Panel Agreement defined the Project as "the preparation of a site for, and the construction, operation, decommissioning and abandonment of, up to four new nuclear power reactors on the existing Darlington Nuclear Site within the Municipality of Clarington, Ontario described in Part I of the Appendix to this Agreement."

[14] The Terms of Reference described the scope of the Project and the activities that would be expected to occur in the various phases of the Project. In the operation and maintenance phase, activities would include "management of low and intermediate waste and spent fuel waste within the reactor building, and the transfer of wastes and used fuel for interim or long-term

storage." Activities during the decommissioning phase could be "conceptually summarized" as including the "transfer of fuel and associated wastes to interim storage."

[15] An Environmental Impact Statement (EIS) is prepared by the project's proponent to allow a joint review panel, regulators and members of the public to understand the project, the existing environment, and the potential environmental effects of the project. The EIS is expected to conform to the EIS Guidelines prepared by the CEE Agency.

[16] In September 2009, OPG filed its EIS.

[17] At the time that OPG submitted its EIS, the Province of Ontario had not yet selected a specific reactor technology, the choice of which would have an impact on the EA. In consequence, the OPG prepared its EIS based on a "bounding approach" or "plant parameter envelope". This approach involved identification of the significant design elements of the project and, for each of those elements, an assessment of adverse environmental effect based on each of the design options under consideration. Consequently, a composite picture of the maximum expected environmental impact was established. Ultimately, the bounding approach for the Project encompassed four different reactor technology options.

[18] In December 2010, the Panel determined that it had sufficient information to proceed with a public hearing on the Project. The hearing was conducted from March 21, 2011 until April 8, 2011. The Panel received 278 contributions, and on June 3, 2011, announced that it had obtained and made public the information needed to prepare its EA report.

[19] On August 25, 2011, the Panel submitted the Joint Review Panel Environmental Assessment Report (EA Report) to the Minister. The EA Report concluded that the Project was not likely to cause significant adverse environmental effects, provided the mitigation measures proposed and the commitments made by OPG during the review, as well as the Panel's 67 recommendations, were implemented.

[20] The Governor in Council subsequently released the Government Response, expressing the federal government's conclusion that the Project is not likely to result in significant adverse environmental effects. On May 8, 2012, pursuant to paragraph 37(1)*(a)* of the Act, the RAs stated that after taking into consideration the EA Report and the implementation of appropriate mitigation measures, they were of the opinion that the Project was not likely to cause significant adverse environmental effects.

[21] In August 2012, the CNSC issued OPG a site preparation licence.

[22] The respondents in this appeal commenced two applications for judicial review in the Federal Court, the first challenging the EA itself and the second challenging the issuance of the site preparation licence.

II. The decision under appeal

[23] The respondents argued before the Federal Court Judge (the Judge) that there were 25 deficiencies in the EA Report. The Judge rejected the majority of the respondents' arguments

and in general found the EA Report to be "highly competent work" (Federal Court Decision at para 394).

[24] The Judge identified the applicable standard of review as reasonableness. He concluded that the issues raised engaged the expertise of the Panel and were questions of mixed fact and law. He explained that this standard required the Court to defer to the Panel's determinations on such matters as "how far to go in gathering information, considering a particular factor, or reporting on one's rationale, conclusions and recommendations" (Federal Court Decision at para 27).

[25] The Judge noted that because the Act sets out specific duties and responsibilities for a review panel, a reviewing court "must go beyond assessing whether a panel came to a reasonable conclusion." That is, the reviewing court "must have regard for the duties set out in the [Act], and ensure that the panel has complied with them"; however, in doing so, a "degree of deference is owed to the panel's judgment in terms of how to fulfill those responsibilities in a given case." The duties prescribed by the Act must be "interpreted and carried out reasonably in the circumstances" (Federal Court Decision at para 30).

[26] The respondents submitted that it was an error for the Panel to accept and apply the bounding approach, and this error resulted in a failure to comprehensively assess the environmental effects of the Project as required by subsections 15(3), 16(1) and (2), and 34(a) and (b) of the Act. The Judge rejected this argument and held there is "no one prescriptive method of conducting an EA." Instead, the EA must "simply be conducted at a time and in a

manner that results in consideration of the factors outlined in the *Act*" (Federal Court Decision at para 72). That is, the focus is not on the methodology employed in conducting an EA, *per se*, but on whether the environmental effects of a project can be "fully considered": *Friends of the Island Inc. v. Canada (Minister of Public Works)*, [1993] 2 F.C. 229, at para 41.

[27] Although the Judge concluded that the Panel's use of the bounding approach was reasonable, he also noted that it was "incumbent on the Panel to ensure that the [bounding approach] methodology was fully carried out, or to explain why significant departures from it (that is, gaps in information about the bounding scenario) did not make the assessment non-compliant with the Act" (Federal Court Decision at paras 246-247).

[28] At the heart of this appeal are the Judge's conclusions that the analysis of the Panel was incomplete in three areas: (1) consideration of hazardous substance emissions; (2) consideration of spent nuclear fuel; and (3) the deferral of the analysis of a severe common cause accident. In each area, the Judge held that the EA Report required more information to allow the Governor in Council to properly evaluate the Project in connection "society's chosen level of protection against risk." I turn to a summary of the Judge's analysis of these three issues.

[29] In relation to hazardous substance emissions, the Judge determined that the Panel took a "short-cut by skipping over the assessment of effects, and proceeding directly to mitigation, which relates to their significance or their likelihood." The Judge noted that this approach was in fact contrary to the approach the Panel claimed to have adopted at page 39 of the EA Report, and "makes it questionable whether the Panel has considered the Project's effects at all in this

regard." Therefore, the assessment of the effects of hazardous substance releases did "not fully comply with the requirements of the [Act]" (Federal Court Decision at paras 275 and 282).

[30] Second, the Judge held that the record confirmed that the issue of the long-term management and disposal of spent nuclear fuel to be generated by the Project "has not received adequate consideration." That is, the Panel "did not reasonably address the issue of the long-term management and disposal of used nuclear fuel in accordance with its obligations under [the Act], and must supplement or amend its Report accordingly" (Federal Court Decision at paras 297 and 318).

[31] Finally, in regards to severe "common cause" multi-reactor accidents, the Judge noted that such accidents "engage the realm of highly improbable, but possibly catastrophic, events" and on policy grounds, it is "logical that such scenarios should be considered by political-decision makers." Further, the Judge held that the language of the statute did not support the Panel's conclusion that the analysis of such accidents had to be conducted, but could be deferred until a later date. Rather, in his view the analysis had to be conducted as part of the EA so that it could be considered by political decision-makers. Therefore, the Judge determined that the Panel's approach to this issue was "unreasonable and not in accordance with its obligations under the [Act]" (Federal Court Decision at paras 331, 334, 337).

[32] Consequently, the Judge remitted the EA back to the Panel for reconsideration of these three matters, and quashed the licence to prepare the site on the ground that the EA had yet to fully comply with the Act.

III. Analysis

A. *Standard of review on appeal*

[33] The parties agree that on appeal of an order issued in an application for judicial review, the task of this Court is to determine whether the Judge below identified the appropriate standard of review and applied it correctly: *Agraira v Canada (Minister of Public Safety and Emergency Preparedness)*, [2013] 2 S.C.R. 559, 2013 SCC 36; put otherwise, the appeal court itself reviews the tribunal decision on the standard of review.

[34] As previously stated, the Judge characterized the issues before him as questions of mixed fact and law, and as such he concluded that the Panel's findings in the EA Report were subject to review on the reasonableness standard.

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[36] The parties agree that the Judge chose the appropriate standard of review. They disagree as to its application.

[37] Generally speaking, the three parties appealing the Judge's decision (OPG, CNCS, and the Attorney General of Canada) submit that the Judge failed to show, in relation to the three matters, deference to the Panel's assessment of the nature and sufficiency of the evidence

required by the reasonableness standard of review, and instead, he substituted his own view of the evidence on those issues.

[38] The respondents, on the other hand, contend that the essence of the appellants' complaint is that the Judge, while deferential, was not sufficiently deferential. They noted that the Judge did not re-weigh the evidence before the Panel; rather, the essence of the Judge's decision is that the Panel did not do what it was required to do under the Act.

[39] I turn now to the first of the three areas where it is said that the Judge erred.

B. *Hazardous substance emissions*

[40] With the exception of air quality, OPG did not provide the Panel with a bounding scenario representing the use, storage and release of hazardous substances from the Project. Further, no bounding scenario was to be provided until the reactor was chosen. As such, the Panel relied upon an assessment that various commitments, recommendations, and regulatory controls would ensure the Project did not have significant adverse effects on the terrestrial and surface water environments.

[41] The Panel itself commented on OPG's failure to provide objective measurements for the purpose of a bounding scenario. OPG did follow its own methodology, in other words, it did not follow the bounding scenario, nor did it provide objective measurements of projected emissions. It stated that "OPGs strategy does not comply with the EIS Guidelines" pertaining to liquid effluent release into Lake Ontario. In this regard, the Panel also said that the lack of information

precluded "confirmation of the conclusions reached concerning possible environmental effects from liquid effluents" (EA Report at 65).

[42] Similarly, Environment Canada observed that there was insufficient information to assess the potential effects of either the liquid effluent or stormwater runoff from the project. It also commented on the absence of detailed mitigation plans, in part because there had been no identification of the environmental effects. Environment Canada also noted that OPG's approach towards hazardous emissions "defers government and public review of process effluents until the CNSC's regulatory review for the consideration of a Licence to Construct under [NSCA]" (Federal Court Decision at para 257).

[43] The Judge concluded that the Panel's conclusions and recommendations in respect of hazardous emissions did not comply with the requirements of the legislation. In the absence of evidence of the nature of contaminants, and the frequency and degree of discharge, the report could not comply with the requirements of section 16. Simply put, the conclusion that there would not be any significant adverse effects was unreasonable.

[44] The Judge was, in my view, properly concerned about the lack of information before the Panel with respect to hazardous emissions. Neither the Panel nor Environment Canada could assess the environmental effects as required by subsection 16(1) due to the lack of information about the full suite of non-radioactive materials which are to be stored, used, and discharged into the air and water if the Project proceeds. Despite the absence of any information, the Panel found it possible to conclude that the Project is not likely to have significant adverse effects based on

proponent commitments, mitigation measures and regulatory controls. This conclusion, in my view, is unreasonable.

[45] The appellants contend that the Judge erred in not considering that the EA was a "preliminary planning tool" and that the assessment of effects was "not to be conceptualized as a single, discrete event", but an as an ongoing dynamic process: *Alberta Wilderness Assn. v. Express Pipelines Ltd.*, [1996] FCJ No 1016, 137 DLR (4th) 177 (FCA); *Pembina Institute for Appropriate Development v Canada (Attorney General)*, 2008 FC 302 at para 24. They rely heavily on the fact that there will be further regulatory licence conditions to be met, and that it was reasonable to rely on the prospective regulatory approvals to mitigate the effects.

[46] Specifically, OPG lists all of the legal requirements, quality standards and necessary approvals that would be required for the Project, including authorization under the *Fisheries Act*, compliance with the *Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem*, and compliance with Good Industry Management Practices, among other regulatory regimes.

[47] In the same vein, the Panel excused non-compliance with the EIS Guidelines reasoning that OPG was entitled to rely on various commitments, recommendations and regulatory controls. Specifically, the Panel concluded that as "…CNSC staff indicated that there is experience of similar regulatory release limits and management practices being applied at other nuclear facilities to control and minimize effects in the surface water environment", OPG may rely on best management practices to ensure the Project does not have significant adverse effects (EA Report at 65).

[48] The respondents do not quarrel with the proposition that it is reasonable to rely on compliance on regulatory regimes as part of the consideration of mitigation. They do, however, say that the proposed mitigation measures and regulatory regimes do not establish clear standards that can serve as a proxy for actual effects. As such, it is unreasonable to rely on unspecified regulatory regimes or mitigation measures when the effects of hazardous emissions are also unspecified.

[49] I agree with this assertion. It is not reasonable for the Panel to rely on OPG's list of vague regulatory regimes and mitigation measures, while failing to assess in any way the effects of hazardous substance releases. That is, the Panel's assessment in regards to hazardous emissions was entirely speculative. This is illustrated by Recommendation 14, which provided that, following the selection of reactor technology, the CNSC require OPG to "conduct a detailed assessment of predicated effluent releases from the project" and further, that it conduct a "risk assessment on the proposed residual releases to determine whether additional mitigation measures may be necessary" (EA Report at 65).

[50] The effect of such a recommendation is that the Panel has avoided its statutory obligation, and instead placed sole responsibility for section 16 considerations on Project proponent *after* the completion of the EA process. In essence, the Panel: (1) acknowledged there was not enough information to assess the environmental effects of hazardous emissions; (2) therefore required that OPG assess any potential environmental effects; and then (3) concluded, in the absence of information about effects and mitigation measures, that the Project is not likely to cause adverse environmental effects. This renders the Panel's decision unreasonable according

to the standard of *Dunsmuir v. New Brunswick*, 2008 SCC 9, [2008] 1 SCR 190. There is no clear, intelligible line of reasoning and the decision does not fall within the range of possible, acceptable outcomes which are defensible in respect of the facts and law.

[51] Further, the Panel's conclusion is antithetical to the purpose of the Act, which has been described as a federal "look before you leap" statute that serves as "an integral component of sound decision-making": *Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 SCR 3 at para 95. The Act ensures that projects, and their environmental effects, receive "careful and precautionary consideration" as "early as is practicable in the planning stages of the project and before irrevocable decisions are made": see the Act, preamble, subsections 2(1), 4(1), 4(2) and 11(1); *Friends of the Island Inc. v. Canada (Minister of Public Works)*, [1993] 2 FC 229. However, the EA must also be conducted at a stage when the project's environmental implications can be fully considered, and when it can be determined whether the project may potentially cause adverse environmental effects.

[52] In the present case, it cannot be said that the Panel fully considered the environmental implications of hazardous emissions. As the Judge pointed out, the problem with the approach taken by the Panel is that it undermines Parliament's intention with respect to who decides the level of acceptable environmental impact from a project (Federal Court Decision at para 281). Leaving this decision in the hands of the Project proponent post EA, in my view, short-circuits the process under the Act where an expert body evaluates the evidence regarding the Project's likely effects, and the political decision-makers evaluate whether that level of impact is acceptable in light of policy considerations (Federal Court Decision at para 281).

C. *Consideration of spent nuclear fuel*

[53] The second deficiency of the EA as found by the Judge was in relation to the management of spent nuclear fuel. The key paragraphs are 297-298:

> In my view, the record confirms that the issue of the long-term management and disposal of spent nuclear fuel to be generated by the Project has not received adequate consideration…[A] decision about the creation of that waste is an aspect of the Project that should be placed before the s. 37 decision-makers with the benefit of a proper record regarding how it will be managed over the long-term, and what is known and not known in that regard.
>
> […]
>
> I conclude on this issue that the Panel did not reasonably address the issue of the long-term management and disposal of used nuclear fuel in accordance with its obligations under [the Act], and must supplement or amend its Report accordingly.

[54] The Judge engaged in a detailed review of the evidence before the Panel on the issue of long-term storage of spent fuel. He concluded that the Panel did not generate a "full factual record" needed by federal decision-makers before they could make an informed decision under the Act. Further, the Judge held that neither the Panel's Terms of Reference nor the EIS Guidelines rendered the storage of spent nuclear fuel a "separate issue" that could be hived off from the EA or deferred to such time as the agency charged with finding a long term solution for the storage of nuclear waste (the Nuclear Waste Management Office, or NWMO) sought approval for its proposed facility, should that day come.

[55] In consequence, he set out four questions or areas of consideration that in his view, were required to be addressed before the Panel could discharge its duty under section 16. These deficiencies included the effect the addition of spent fuel from enriched uranium would have on

the management and disposal of nuclear waste; the likelihood that a long term storage facility would be both appropriate and available, alternatives to burying the waste underground, and the cost implications of various scenarios.

[56] In my view, these questions required the Panel to go beyond its Terms of Reference. The terms did not require the Panel to consider the viability of long-term *off-site* storage of waste. The Terms of Reference were restricted to the management of low and intermediate waste and spent fuel waste within the reactor building, and the transfer of wastes and used fuel for interim or long-term storage during the operation phase of the Project, and transfer of fuel and associated wastes to interim storage during the decommissioning phase. Nevertheless, the Panel considered and rejected, for a number of reasons, OPG's plan to ship nuclear fuel to off- site storage. It therefore made two specific recommendations, Nos. 52 and 53 (page 382 of JAB, Vol. 2 Tab 8), requiring that all nuclear waste be stored on site in perpetuity and that this requirement be made a condition of further CNSC licence approvals.

[57] In addition, although the Panel did not explicitly consider in its assessment the effect the addition of spent fuel from enriched uranium would have on the management and disposal of nuclear waste, it acknowledged OPG's position that if the spent fuel comprised enriched uranium, there would be appropriate design modifications in the containers and at the on-site storage facility (EA Report at 117).

[58] I would agree with the Judge that had the Panel deferred consideration of the issue of spent nuclear fuel to the Nuclear Waste Management Office (NWMO - the agency responsible

for finding long term storage solutions) as urged originally by OPG, there would have been a concern as to whether the Panel had discharged its duty under section 16. However, that was not the case. The Panel's recommendation and conclusions were predicated on OPG's commitment to store all fuel on site and in perpetuity.

[59] The exploration by the Panel of the viability and appropriateness of a long term geological storage may have prompted the questions that the Judge considered to be unanswered; however, the failure to do so does not constitute a basis upon which the Panel decision with respect to spent fuel can be set aside. The Panel's consideration of spent nuclear fuel was consistent with its Terms of Reference; that is, the Panel considered the issue and made specific recommendations which obviated the question of off-site storage, as well as transportation to and from any off site. It recommended that the fuel be stored on site in perpetuity.

[60] The Panel's decision reveals a careful consideration of the issue of waste and includes a rationale for its conclusion. The conclusion was defensible notwithstanding unanswered questions and the Judge erred in essentially substituting his view for that of the Panel.

D. ***Sever common cause accidents***

[61] The third deficiency of the EA as found by the Judge was in relation to the Panel's analysis of a severe "common cause" multi-reactor accident. The new reactors would be added to the Darlington site and its existing suite of reactors. OPG did not analyze the cumulative effect of a severe single accident affecting both existing and new facilities for scenarios "because they were considered hypothetical and to have a very low probability of occurring." The Panel

rejected OPGs interpretation of the guidance of the Act that this should be considered as a unique scenario:

> The Panel is of the view that a more appropriate interpretation, in this instance, would have been to include a cumulative effects assessment of a common-cause accident involving multiple reactors in the site study area.

[62] In its report, the Panel noted that OPG had analyzed "a number of bounding radiological malfunctions and accidents" as part of its EIS. These included accidents in the handling of waste, transportation of new nuclear fuel, and malfunctions and accidents that could affect the reactor itself. For the majority of these scenarios, the Panel concluded that potential radiological releases would be below regulatory limits and there would be no significant adverse environmental effects.

[63] With respect to accidents within the reactor itself, the Panel stated that the bounding analysis met the qualitative and quantitative safety goals set out in the CNSC regulatory document (RD-337). It also noted that the design and safety requirements for new nuclear power plants would be specified and enforced at a later stage of the licencing process. In consequence, the Panel made two recommendations, Nos. 57 and 58 (page 389 of JAB, Vol. 2 Tab 8):

> The Panel recommends that prior to construction, the Canadian Nuclear Safety Commission require OPG to undertake an assessment of the off-site effects of a severe accident. The assessment should determine if the off-site health and environmental effects considered in this environmental assessment bound the effects that could arise in the case of the selected reactor technology.
>
> The Panel recommends that prior to construction, the Canadian Nuclear Safety Commission confirm that dose acceptance criteria specified in RD-337 at the reactor site boundary – in the cases of design basis accidents for the Project's selected reactor technology – will be met.

[64] The Judge concluded that the standards in RD 337 "allows both the Panel and the s. 37 decision-makers to fulfill their responsibilities under the Act, even in the absence of complete design information at the outset of the Project" and that "with respect to the safety of the Project itself, the Panel's analysis provides a sufficient factual basis for the decisions that needed to be made, and fulfills the Panel's obligations under the Act" (Federal Court Decision at paras 328-329).

[65] What was not conducted, however, was an analysis of cumulative effects of accidents or malfunctions "that go beyond those contemplated by the RD-337 methodology", such as accidents or malfunctions that affect both the existing and new plants given the Project is being built on the site of an existing nuclear generating station (Federal Court Decision at para 330).

[66] In this regard, the Judge observed, at paragraphs 331, 334 and 337:

> This seems to engage the realm of highly improbable, but possibility catastrophic, events. On policy grounds, it is logical that such scenarios should be considered by political decision-makers, because once again they seem to engage mainly questions of "society's chosen level of protection against risk" that will be difficult for a specialized regulator to assess with legitimacy. […]
>
> In my view, the one conclusion that is not supported by the language of the statute is the Panel's conclusion that the analysis had to be conducted, but could be deferred until later. Rather, in my view, it had to be conducted as part of the EA so that it could be considered by those with political decision-making power in relation to the Project.
>
> In my view, then, the Panel's approach to this issue was unreasonable and not in accordance with its obligations under the [Act] and it needs to be revisited in some supplement or amendment to the Report.

[67] The error, according to the Judge, was that having reached the conclusion that these effects needed to be considered, the Panel erred in not insisting that it take place within the

framework of the EA process. The purposes of section 37 could not be fulfilled. The Panel's approach, in deferring the matter, was both inconsistent with its obligations under section 16 ("shall include a consideration of…the environmental effects") and it was unreasonable.

[68] I would agree with the Judge that it would be an error if the Panel had identified an environmental issue, deferred consideration of its effects to a later date, but nevertheless concluded that the project was unlikely to have any significant environmental effects; however, this is not how I read the decision of the Panel. It directed its consideration to the possibility of a severe common cause accident, and made two specific recommendations in respect of those concerns (see Recommendation Nos. 63 and 64).

[69] The analysis here is contextual. It turns on whether the decision maker had sufficient information of the environmental effects, together with mitigation measures, to make the assessment and recommendations that it did. In this case, the issue was a highly improbable severe accident, the parameters of which depended on any one of any number of hypothetical scenarios.

[70] The Act does not require that all accident scenarios, however improbable, be taken in to account. In *Friends of the West Country Assn. v. Canada (Minister of Fisheries and Oceans)*, [2000] 2 FC 263 (FCA) at 280-281, this court observed:

> The second aspect involves the exercise of the discretion vested in the responsible authority by subsection 16(3) to determine the scope of this part of the paragraph 16(1)(a) factor, i.e. the cumulative environmental effects that will be considered. By necessary implication, a decision as to the cumulative environmental effects that are to be considered requires a determination of which other projects or activities are to be taken into account. It is, therefore, within the discretion of the

> responsible authority to decide which other projects or activities to include and which to exclude for purposes of a cumulative environmental effects assessment under paragraph 16(1)(a).

[71] It is important to recall that paragraph 16(1)*(a)* of the Act requires a panel to consider the environmental effects of malfunctions or accidents that "may" occur in conjunction with the project, as well as any cumulative effects that are "likely to result". The Act does not require the Panel to consider the environmental effects of all improbable scenarios. Here, the panel considered the potential environmental effects of malfunctions and accidents that may occur and given this, there was an evidentiary foundation for its recommendation that severe common cause be considered as part of the emergency preparedness plan.

[72] Therefore, the Panel's assessment of the probability of the accident, and hence its limited assessment of the environmental effects, was a matter within the scope of its discretion and its conclusion was reasonable in the context of the evidence and issues before it.

[73] Before concluding, it is necessary to remind the parties of the limitation on the role of tribunals and regulatory agencies in judicial proceedings which engage their own decisions; *Northwestern Utilities Ltd. and al. v. Edmonton*, [1979] 1 S.C.R. 684, 1978. In this case, the panel report was a joint panel, including the CNSC, thus engaging the restriction on CNSC's participation. Further, it is inappropriate for the CNSC, as the independent regulatory and licencing authority, to argue, beyond points of jurisdiction and background, in support of OPG, the licence holder, and the entity which is the subject of its regulatory mandate.

[74] Accordingly, I would allow the appeals in part, varying the Order rendered below by striking paragraphs 2(b) and 2(c), but otherwise maintaining the decision. As the effect of the Order below remains, I would dismiss the appeals with costs.

"Donald J. Rennie"

J.A.

REASONS FOR JUDGMENT

TRUDEL AND RYER JJ.A.

[75] Before this Court are three appeals: A-282-14, brought by Ontario Power Generation ("OPG"), A-283-14, brought by the Canadian Nuclear Safety Commission ("CNSC"), and A-285-14, brought by the Attorney General of Canada, the Minister of the Environment, the Minister of Fisheries and Oceans and the Minister of Transport. These appeals were consolidated pursuant to an order of Justice Webb of this Court, dated July 23, 2014.

[76] The appeals relate to the decisions of Justice Russell of the Federal Court (the "Judge") in two applications for judicial review, T-1572-11 and T-1723-12, which were brought by Greenpeace Canada, Lake Ontario Waterkeeper, Northwatch and the Canadian Environmental Law Association. These applications were heard one after the other pursuant to an order of Prothonotary Milczynski, dated November 23, 2012.

[77] The Judge dealt with both applications in a single set of reasons (the "Reasons"), which may be located under the citation 2014 FC 463.

[78] The application in T-1572-11 challenged an environmental assessment (the "EA") undertaken under the *Canadian Environmental Assessment Act*, S.C. 1992, c. 37 (the "Act"), by a joint review panel (the "Panel") in relation to the Darlington New Nuclear Power Plant Project (the "Project") and the report prepared by the Panel with respect to the EA (the "EA Report").

[79] The Judge partially allowed this application. He held that the EA and the EA Report failed to comply with the Act and the agreement under which the Panel was established (the "Panel Agreement") in respect of three areas described as follows:

a) Gaps in the bounding scenario regarding hazardous substance emissions and on-site chemical inventories (the "HSE Issue");

b) Consideration of spent nuclear fuels (the "Spent Nuclear Fuel Issue"); and

c) Deferral of the analysis of a severe common cause accident (the "Common Cause Accident Issue").

On that basis, he partially quashed the EA Report and ordered that it be returned to the Panel for further consideration of the HSE Issue, the Spent Nuclear Fuel Issue and the Common Cause Accident Issue.

[80] The application in T-1723-12 challenged the issuance of the site preparation licence with respect to the Project (the "Licence") that was issued by CNSC subsequent to the release of the EA Report by the Panel. The Judge allowed this application and quashed the Licence for the sole reason that the EA Report failed to comply with the Act in relation to the three issues described above.

[81] We have reviewed the reasons of our learned colleague, Justice Rennie, and are unable to agree with his conclusion that the appeals should be dismissed. For the reasons that follow, we would allow the appeals and set aside the judgments of the Federal Court in T-1572-11 and T-1723-12.

[82] In reaching this conclusion, we adopt Justice Rennie's description of the relevant factual background. We also adopt Justice Rennie's analysis and conclusions that the Judge erred in his determinations with respect to the Spent Nuclear Fuel Issue and the Common Cause Accident Issue. However, we respectfully disagree with Justice Rennie's determination that the Judge made no error in his determination with respect to the HSE Issue.

[83] On the basis that the Judge erred in his conclusions with respect to all three of these issues, we are of the view that the appeals must be allowed and the application for judicial review in T-1572-11 must be dismissed. This, in turn, leads us to conclude that the application for judicial review in T-1723-12 must also be dismissed because the Judge allowed that application solely on the basis of his conclusion that the EA Report failed to comply with the Act in relation to the HSE Issue, the Spent Nuclear Fuel Issue and the Common Cause Accident Issue.

[84] While we have adopted the factual background described in the reasons of Justice Rennie, some additional background comments are set forth below to facilitate an understanding of our reasons.

I. Background

[85] It is important to consider the factual and legislative contexts in which these appeals arise.

[86] OPG's application for the Licence, in the fall of 2006, gave rise to the requirement for an EA in respect of the Project in accordance with subsection 5(1) of the Act. In the present circumstances, the Panel was constituted as a review panel under section 29 of the Act and was responsible for the conduct of the EA.

[87] The conduct of the EA is a necessary step in the overall approval process with respect to the Project under consideration. However, the Panel that is responsible for the EA is not empowered to make any approval decisions in respect of the Project.

[88] Pursuant to the Panel Agreement, the EA and licence application processes were combined and undertaken by the Panel. The Panel's conduct of the EA mandated a consideration of the factors set forth in section 16 of the Act, the relevant portions of which are set out in the reasons of Justice Rennie.

[89] The Panel's additional obligations are stipulated in section 34 of the Act. These may be summarized as follows:

a) ensuring that the information required for the EA is obtained and made available to the public;

b) holding appropriate public hearings;

c) preparing a report setting out:

   i. the rational, conclusions and recommendations of the Panel relating to the Project, including any mitigation measures and follow-up; and

   ii. a summary of public comments; and

d) submitting its report to the Minister of the responsible authority ("RA"), as defined in subsection 2(1) of the Act.

The Terms of Reference, which are scheduled to the Panel Agreement, also instruct the Panel with respect to its conduct of the EA. The Terms of Reference stipulate that the scope of the Project will include five phases: site preparation, reactor construction, operation and maintenance of the reactors and related facilities, reactor decommissioning and site abandonment.

[90] Part 10 of the Terms of Reference stipulates that in conducting the EA, the Panel must consider the factors listed in paragraphs 16(1) *(a)* to *(d)* and in subsection 16(2) of the Act.

[91] Hazardous substance emissions ("HSE") are contemplated by the Terms of Reference in relation to the reactor operations and maintenance phase of the Project, which is anticipated to begin approximately 6 to 8 years after approval of the Project and to last for approximately 60 years. No specific mention is made in the Terms of Reference of any particular type or level of consideration that the Panel is required to give to the matter of HSE.

[92] The reactor procurement process identified a number of potential reactor technologies that could be used in the Project. As acknowledged in the Terms of Reference and the Environmental Impact Statement Guidelines (the "EIS Guidelines"), the Province of Ontario decided not to make a selection until some future time. For this reason, OPG determined that its participation in the EA process would be based upon a "multi-technology" approach in which four different types of reactors would be considered.

[93] This led OPG to use the so-called plant parameter envelope ("PPE") or "bounding" approach in preparing its Environmental Impact Statement (the "EIS"). Under that approach, the environmental effects of the Project were assessed by reference to identified features or characteristics of each of the four reactor types. The goal of the "bounding" approach was to assure that the potential adverse effects associated with identified features of all four of the potential reactor choices were considered.

[94] The Panel assembled information, conducted a public hearing, prepared the EA Report and submitted that Report to the Minister and the RAs.

[95] Recognizing that the deferral of the reactor selection by the Province of Ontario could introduce some level of uncertainty into the EA process, the Panel made the following stipulation at page 11 of the EA Report:

> If the Project is to go forward, the reactor technology selected by the Government of Ontario must be demonstrated to conform to the plant parameter envelope and regulatory requirements, and must be consistent with the assumptions, conclusions and recommendations of the environmental assessment and the details of the Government response to this Joint Review Panel Environmental Assessment Report. This evaluation will be required to be performed by the responsible authorities once a reactor technology is selected and will be required to be demonstrated as part of the licence process for an Application for a Licence to Construct.

[96] At page 143 of the EA Report, the Panel stated its conclusion that the Project is not likely to cause significant adverse environmental effects provided that its recommendations and OPG's mitigation measures and commitments are implemented. On that same page, the Panel reiterated its concern with respect to the deferral of the reactor selection decision stating:

> Once a reactor technology has been selected by the Government of Ontario, it must be determined if the specific aspects and parameters of that technology are fundamentally the same as those considered in this review. If the technology is fundamentally different, then this review does not apply and a new environmental assessment must be conducted.

[97] The Government of Canada issued the Government Response in which it determined that the Project is not likely to cause significant adverse environmental effects taking into account the EA Report and any mitigation measures that the RAs consider appropriate. In the Government Response, the Government stated:

> **Government of Canada Conclusions**
>
> The Government of Canada is providing this response to the Panel's Report and Recommendations to meet its obligations pursuant to subsection 37(1.1) of the CEAA. The Response was developed in consultation with other federal departments and is approved by the Governor in Council.
>
> Under subsection 37(2.2) of the CEAA, a Responsible Authority is required to ensure the implementation of mitigation measures. Similarly, under subsection 38(2) a Responsible Authority is required to design a follow-up program and ensure its implementation.
>
> In preparation of this Government of Canada Response, Fisheries and Oceans Canada, Transport Canada and the Canadian Nuclear Safety Commission, as RAs under the CEAA, considered the report submitted by the Joint Review Panel. The Government of Canada, through the RAs under the CEAA, will ensure that the appropriate follow-up programs are designed and implemented and will also ensure or satisfy itself that the implementation of appropriate mitigation measures, as set out by the JRP in the EA will be implemented, for areas of jurisdiction that the Government of Canada has regulatory responsibility. [Emphasis added]

In addition, with respect to Recommendation 1 of the Panel, the Government stated:

> **Response to Recommendations**

> **Recommendation 1**
>
> The Panel understands that prior to construction, the Canadian Nuclear Safety Commission will determine whether this environmental assessment is applicable to the reactor technology selected by the Government of Ontario for the Project. Nevertheless, if the selected reactor technology is fundamentally different from the specific reactor technologies bounded by the Plant Parameter Envelope, the Panel recommends that a new environmental assessment be conducted.
>
> **Response**
>
> The Government of Canada accepts the intent of this recommendation, but acknowledges that any RA under the CEAA will need to determine whether the future proposal by the proponent is fundamentally different from the specific reactor technologies assessed by the JRP and if a new EA is required under the CEAA. [Emphasis added]

[98] Subsequent to the Government Response, the RAs determined, pursuant to paragraph 37(1)(a) of the Act, that it was appropriate for the licencing application to proceed because, after taking into account the EA Report and the implementation of appropriate mitigation measures, the Project is not likely to cause significant adverse environmental effects.

[99] On August 17, 2012, the CNSC issued the Licence to OPG.

II. The decision of the judge

[100] In paragraph 19 of the Reasons, the Judge framed the HSE Issue as whether the Panel failed to comply with the Act in conducting the EA by failing to consider the "environmental effects" of the Project, as required by section 16 of the Act. He partially allowed the application in T-1572-11, stating that the EA conducted by the Panel failed to comply with the Act and the Panel Agreement in the three areas contemplated by the HSE Issue, the Spent Nuclear Fuel Issue and the Common Cause Accident issue.

[101] Given our agreement with Justice Rennie that the Judge erred in his conclusions with respect to the Spent Nuclear Fuel Issue and the Common Cause Accident Issue, we will only refer to the Judge's findings with respect to the HSE Issue.

[102] The Judge dealt with the HSE Issue in paragraphs 250 to 282 of the Reasons. However, nowhere in those 32 paragraphs does the Judge specifically state which provisions of the Act and the Panel Agreement were not complied with in relation to that issue. That said, given his formulation of the issue referred to above, the Judge must be taken to have concluded that the Panel's non-compliance was with respect to its "consideration" requirements under paragraphs 16(1)*(a)* and *(b)* of the Act.

[103] After making extensive references to HSE in the EA Report, the EIS, Project Information Request #19 and OPG's response thereto, submissions from Environment Canada and four of the Panel's recommendations (#s 14, 15, 16 and 26), the Judge made the following finding at paragraph 271 of the Reasons:

> [271] On the whole, then, in the absence of bounding scenarios representing the use, storage and release of hazardous substances from the Project, the Panel relies upon an assessment that various commitments, recommendations, and regulatory controls will ensure the Project does not have significant adverse effects on the terrestrial and surface water environments.

[104] In paragraph 272 of the Reasons, the Judge appears to frame the issues, stating:

> [272] This may well be a reasonable conclusion. The question, though, is whether it complies with the Panel's obligations to consider the Project's environmental effects and their significance (CEAA, s. 16(1)*(a)* and *(b)*), to ensure that the information required for an assessment is obtained and made available to the public (CEAA, s. 34(a)), to prepare a report setting out the rationale, conclusions and recommendations of the panel relating to the EA of the project (CEAA, s. 34(c)), and, as the jurisprudence and the scheme of the Act make clear, to ensure

> that those required to make decisions under s. 37 have a proper evidentiary foundation before them. To repeat what is stated above, because of its unique role in the statutory scheme, a review panel is required to do more than consider the evidence and reach a reasonable conclusion. It must provide sufficient analysis and justification to allow the s. 37 decision-makers to do the same, based on a broader range of scientific and public policy considerations. One could say that the element of "justification, transparency and intelligibility within the decision-making process" (Dunsmuir, above, at para 47; Khosa, above, at para 59) takes on a heightened importance in this context. [Emphasis added]

[105] This paragraph raises the question of whether the Panel's conclusion that the Judge formulated in paragraph 271 of the Reasons was nonetheless compliant with the Panel's obligations under paragraphs 34*(a)* and *(c)* of the Act. The Judge's conclusion in paragraph 228 of the Reasons appears to answer that question in the affirmative:

> [228] A careful reading of the EA Report shows that, despite some information gaps about which the Applicant's [sic] have expressed understandable concerns, the Panel had sufficient information to conduct, and did conduct, an EA that provided the s.37 decision-makers with a proper evidentiary foundation for the decisions they were required to make. [Emphasis added]

[106] However, at paragraph 275 of the Reasons, the Judge questions whether the Panel has complied with subsections 16(1)*(a)* and *(b)* of the Act, stating:

> [275] In essence, the Panel takes a short-cut by skipping over the assessment of effects, and proceeding directly to consider mitigation, which relates to their significance or their likelihood. This is contrary to the approach the Panel says it has adopted (see EA Report at p.39) and makes it questionable whether the Panel has considered the project's effects at all in this regard. [Emphasis added]

At paragraph 276 of the Reasons, the Judge concluded that "such a short-cut might be permissible where there is a clear standard or threshold that can serve as a proxy for actual effects."

[107] At paragraph 281of the Reasons, the Judge found that if a Panel concludes, despite a degree of uncertainty, that significant adverse environmental effects are unlikely to occur, based upon confidence in the ability of regulatory structures to manage the effects of the Project over time,

> […] it may undermine Parliament's intention with respect to who decides the level of acceptable environmental impact from a project. That is, it may short-circuit the two-stage process whereby an expert body evaluates the evidence regarding a project's likely effects, and political decision-makers evaluate whether that level of impact is acceptable in light of policy considerations, including "society's chosen level of protection against risk."

[108] At paragraph 282 of the Reasons, the Judge appears to make his only definitive finding with respect to the HSE Issue, stating:

> [282] This does not rule out the possibility that a more "qualitative" assessment of effects and their significance may be appropriate in some cases. Some effects may be difficult to quantify even where reliable information is available. However, there is nothing the EA Report that suggests a qualitative assessment of the effects of hazardous substance releases. Rather, it seems to me that what the Report reflects is a qualitative assessment of the mitigation measures that are available to manage and control those effects. In this respect, it does not fully comply with the requirements of the CEAA. [Emphasis added]

[109] In paragraph 3 of his Order, the Judge ordered that the EA Report be returned to the Panel "for further consideration and determination of the specific issues set out above and in the reasons to this judgment…" [Emphasis added]

[110] The Judge allowed the application in T-1723-12 and quashed the Licence. His judgment states that the sole reason for doing so is the Panel's failure to comply with the Act in respect of the HSE Issue, the Spent Nuclear Waste Issue and the Common Cause Accident Issue.

III. Relevant statutory provisions

[111] The "consideration" requirements in paragraphs 16(1)*(a)* and *(b)* of the Act, which are at issue in these appeals, are reproduced in the reasons of Justice Rennie.

IV. Issues

[112] On an appeal from a decision of the Federal Court in an application for judicial review, this Court is required to determine whether the reviewing court correctly identified the applicable standard of review and then correctly applied it. (see *Agraira v. Canada (Public Safety and Emergency Preparedness*, 2013 SCC 36, [2013] 2 S.C.R. 559 at paragraph 45 [*Agraira*]).

[113] In the context of these appeals, it is important to focus on the actual decisions that were challenged in the applications for judicial review. In T-1723-12, the impugned decision is simply the granting of the Licence.

[114] In T-1572-11, the Judge's Order states that the EA failed to comply with the requirements of the Act and the Panel Agreement. The Judge then partially quashed the EA Report returning it to the Panel (or another review panel) for "further consideration".

[115] This leaves open the question of exactly what decision of the Panel was being challenged in T-1572-11. At the hearing, counsel for OPG asserted that the impugned decision was the conclusion that the Panel stated at page 143 of the EA Report. He went on to state that each of the bases of attacking that decision was required to be considered in light of the applicable

standard of review of the question raised in each such basis of attack. He concluded that the Panel's overall decision could not stand if any single basis of attack proved to be valid.

[116] We are of the view that this analytical approach is correct and, as such, we question the approach taken by the Judge when he ordered that the EA Report should be partially quashed. That said, given our conclusion that the appeals should be allowed, the approach embodied in the Judge's Order is not a live issue.

[117] In undertaking our task, we must "step into the shoes" of the Judge and consider the questions that he reviewed. In doing so, no deference is owed to the Judge. If he selected an incorrect standard of review, we must conduct the review using the standard of review that we determine to be correct. If the Judge selected the correct standard of review, we are free to substitute our view as to whether he correctly applied that standard of review in respect of the questions that he reviewed.

[118] As previously noted, we agree with Justice Rennie that the Judge erred in his conclusion that in conducting the EA and preparing the EA Report, the Panel erred in failing to consider the factors in paragraphs 16(1)*(a)* and *(b)* of the Act in respect of the Spent Nuclear Waste Issue and the Common Cause Accident Issue.

[119] Accordingly, the issues in these appeals are:

a) whether the Judge selected the correct standard of review upon which to conduct his review of the question of whether, in conducting the EA and preparing the EA Report, the Panel failed to consider the factors contained in paragraphs 16(1)*(a)* and *(b)* of the Act in respect of the HSE Issue; and

b) whether the Judge misapplied the correct standard of review in his review of that question.

V. Standard of review

[120] Since the decision of the Supreme Court of Canada in *Dunsmuir v. New Brunswick*, 2008 SCC 9, [2008] 1 S.C.R. 190 [*Dunsmuir*], there are only two standards of review: correctness and reasonableness. When a question is reviewed on the correctness standard, the reviewing court is free to substitute its judgment on the question for that of the tribunal whose decision with respect to that question is under review. When the question is reviewed on the reasonableness standard, the reviewing court may not intervene by simply substituting its opinion for that of the tribunal. Rather, the reviewing court can only intervene if the decision is not reasonable.

[121] *Dunsmuir* informs that the nature of the question under review will be the starting point in the determination of the applicable standard of review in respect of that question. Questions of law are sometimes reviewed on the standard of correctness, while questions of mixed fact and law are reviewed on the standard of reasonableness, absent readily extricable questions of law.

VI. Discussion

A. *Did the Judge select the correct standard of review?*

[122] The Judge selected reasonableness as the standard of review with respect to the question of whether the Panel considered or failed to consider the environmental effects of HSEs from the Project and their significance, as required by paragraphs 16(1)*(a)* and *(b)* of the Act. We are of the view that this is a question of mixed fact and law in respect of which we can discern no

readily extricable legal issue. Accordingly, we agree with the Judge that this question must be reviewed on the standard of review of reasonableness.

B. ***Did the Judge correctly apply the reasonableness standard?***

[123] In the circumstances, the Panel made no specific finding that it had complied with the consideration requirements in paragraphs 16(1)*(a)* and *(b)* of the Act. However, it is our view that in conducting the EA and preparing the EA Report, the Panel must be taken to have implicitly satisfied itself that it was in compliance with those statutory requirements. In applying the reasonableness standard to this question, we must consider the Panel's decision as a whole, in the context of the underlying record, to determine whether the Panel's implicit conclusion that it had complied with the consideration requirements is reasonable (see *Agraira* at paragraph 53).

The Consideration Requirements

[124] The consideration requirements in paragraphs 16(1)*(a)* and *(b)* of the Act have been interpreted by the Courts.

[125] In Friends of the West Country Assn. v. Canada (Minister of Fisheries and Oceans), [2000] 2 F.C. 263, 248 N.R. 25 (CA) [Friends of the West Country Assn], Justice Rothstein stated at paragraph 26:

> The use of the word "shall" in subsection 16(1) indicates that <u>some consideration</u> of each factor is mandatory. [Emphasis added]

[126] We also endorse the finding of Justice Pelletier at paragraph 71 of *Inverhuron & District Ratepayers' Assn. v. Canada (Minister of the Environment)*, 191 F.T.R. 20, [2000] F.C.J. No. 682 (QL) [*Inverhuron*], as follows:

> 71 It is worth noting again that the function of the Court in judicial review is not to act as an "academy of science" or a "legislative upper chamber". In dealing with any of the statutory criteria, the range of factual possibilities is practically unlimited. No matter how many scenarios are considered, it is possible to conceive of one which has not been. The nature of science is such that reasonable people can disagree about relevance and significance. In disposing of these issues, the Court's function is not to assure comprehensiveness but to assess, in a formal rather than substantive sense, whether there has been some consideration of those factors in which the Act requires the comprehensive study to address. If there has been some consideration, it is irrelevant that there could have been further and better consideration. [Emphasis added]

[127] Having regard to this jurisprudence, and in the absence of any specific stipulation to the contrary in the Panel Agreement, Terms of Reference and EIS Guidelines, it is apparent that the Panel was at liberty to determine the type and level of consideration that it was required to give to the HSE environmental effects in conducting the EA and in preparing the EA Report.

[128] The Judge appears to have reached the same conclusion with respect to the level or type of the consideration requirements in subsections 16(1) and (2) of the Act. He acknowledged that the "form and extent" of any such consideration was not stipulated in the Act and that the Panel is "required to use its expertise to gauge the extent and form of 'consideration' required in each particular case" (Reasons at paragraph 195).

[129] In addition, at paragraph 198 of the Reasons, the Judge confirmed that it is not the role of the Court to assess and reweigh the methodology and conclusions of an expert panel, stating:

> [198] In attacking the EA Report as inadequate, the Applicants are to a considerable extent asking the Court to assess and reweigh the methodology and conclusions of an expert panel. This is not the role of the Court. It is true that s. 16(1) and (2) of the CEAA mandate the *"consideration"* of certain factors, but the way this is done and the weight to be ascribed to each factor is left to the expert Panel to be assessed in accordance with the purposes of the Act. [Emphasis added]

[130] It has not been asserted by any party to the appeals that the Panel Agreement, Terms of Reference or EIS Guidelines required, or the Panel itself stipulated, any particular type or level of consideration that it would give to the HSE environmental effects. Thus, in our view, the type or level of consideration that the Panel was required to give to those effects was simply that which is mandated in *Friends of the West Country Assn and Inverhuron*, namely, "some consideration." It follows, in our view, that a failure of the Panel to consider the HSE environmental effects can only be established if it is demonstrated that the Panel gave no consideration at all to those environmental effects.

Did the Panel consider the HSE environmental effects?

[131] The application for judicial review presented the Judge with some 25 alleged "information gaps" before the Panel that allegedly rendered the EA and the EA Report non-compliant with the Act. With respect to all but three matters, the Judge concluded that the alleged gaps did not result in a non-compliant EA or EA Report. The Judge expressed his concerns with respect to these three matters in paragraph 228 of the Reasons as follows:

- The alleged failure of the Panel to insist on a bounding scenario analysis for hazardous substance emissions, in particular liquid effluent and stormwater runoff to the surface water environment, and for the sources, types and quantities of non-radioactive wastes to be generated by the project;

- The Panel's treatment of the issue of radioactive waste management; and

- The Panel's conclusion that an analysis of the effects of a severe common cause accident at the facility was not required at this stage, but should be carried out prior to construction.

Of these three, only the first is dealt with in our reasons, as we agree with the conclusions of our colleague Justice Rennie with respect to the Judge's second and third concerns.

[132] The Judge's formulation of his concern with respect to the HSE environmental effects focuses on the failure of the Panel to insist upon a particular type of evidence – a bounding scenario analysis – to provide the basis for its consideration of those environmental effects.

[133] In our view, this determination by the Judge constituted the imposition of a requirement with respect to the type and level of the consideration that the Panel ought to have undertaken in respect of the HSE environmental effects. In doing so, the Judge imposed his own opinion as to how the HSE environmental effects ought to have been considered by the Panel. As a result, we are of the view that the Judge misapplied the reasonableness standard of review with respect to the question of whether the Panel erred by failing to consider those environmental effects.

[134] The Judge's finding, in paragraph 187 of the Reasons, that none of the Project components was completely left out of the EA must mean that the environmental effects of HSE were considered by the Panel in making the EA. That the Judge was concerned with the level or type of the Panel's consideration of those effects is borne out in his formulation of the problem

in respect of HSE, in paragraph 228 of the Reasons, as a failure by the Panel to "insist on a bounding scenario analysis" for HSE.

[135] The Judge's concern with respect to the sufficiency of the information upon which the Panel could assess the HSE environmental effects in relation to the Project appears to arise out of OPG's use of the PPE approach in preparing the EIS that it submitted to the Panel. The choice of the PPE approach was the result of the Province of Ontario's decision to defer the selection of the type of reactor to be used in the Project.

[136] The Province's reasons for this decision are not in issue and the appropriateness of a decision of this type has been confirmed by the CNSC in Information Guide INFO-0756, Rev. 1, *Licensing Process for New Nuclear Power Plants in Canada* (CNSC 2008d), wherein, at page 8, it is stated:

> An application for a Licence to Prepare Site does not require detailed information or determination of a reactor design; however, high level design information is required for an environmental assessment that precedes the licensing decision for a *License to Prepare Site*.

[137] The application for judicial review in T-1572-11 asserted that the EA should be set aside on the basis that the use of the PPE approach was unacceptable because it failed to describe the Project in sufficient detail. The Judge determined that although the PPE approach was contemplated by the Terms of Reference and the EIS Guidelines, that approach was not required to be accepted by the Panel as the basis for it EA. Nonetheless, he concluded that the Panel made no reviewable error by using the PPE approach to conduct the EA and prepare the EA Report.

[138] Having accepted the use of the PPE approach, the Judge concluded that the focus of his analysis was on whether the Panel complied with its obligations under sections 16 and 34 of the Act in conducting the EA and preparing the EA Report. At paragraph 187 of the Reasons, he stated:

> The Applicants have not pointed to any Project components (activities or undertakings relating to the Project) that were completely left out of the assessment in this case; rather their complaint is with the level of information that was available to assess some of the project components. Thus the real focus of the analysis here must be on the obligations set out in ss. 16 and 34 of the Act.

[139] As noted earlier, the type and level of the consideration that must be given to an environmental effect, such as HSE, in accordance with paragraphs 16(1)*(a)* and *(b)* of the Act, is a matter to be determined by the Panel and, as stated by Justice Pelletier in *Inverhuron*, "some consideration" of the environmental effect will be sufficient.

[140] Whether the Panel erred by not insisting on a bounding scenario analysis from OPG in respect of the environmental effects of HSE must be considered in the context of the PPE approach that was accepted by the Panel as the basis for the EA. As noted above, this approach was contemplated by the Terms of Reference and the EIS Guidelines and its use was upheld as reasonable by the Judge.

[141] The PPE approach was inherently forward looking in that it contemplated a future selection of the reactors to be used in the Project. One consequence of such an approach was that the information available to be assessed under it was likely to be lesser in amount and specificity than would be expected in relation to a more defined project.

[142] While OPG did provide a bounding scenario analysis in respect of certain elements of HSE, for example, radionuclides (Reasons at paragraph 258) and certain chemicals (Reasons at paragraph 260), it did not provide such an analysis with respect to a number of other elements of HSE.

[143] Indeed, the record shows that the Panel requested additional HSE bounding value information from OPG:

> Bounding values should be provided for likely parameters/chemicals. These can be developed in discussion with the vendors and in consideration of typical chemicals, quantities and concentrations at existing Nuclear Generating Stations, Proprietary considerations can be dealt with through a variety of mechanisms, and should not pose a barrier for the EA of the Project.
>
> […]
>
> This information is required to determine the completeness and acceptability of the effluent characterization to support an assessment of environmental effects (Darlington Joint Review Panel EIS Information Requests, February 2010; Appeal Book volume 22, pp 6519-6521).

[144] OPG reiterated in its response to the Panel's request that the information was not available before the choice of a specific design (OPG Response to Joint Panel Environmental Impact Statement (EIS) Information Request; Appeal book volume 23, p. 6658). The Panel accepted OPG's answer.

[145] At page 65 of the EA Report, the Panel stated that in the absence of a selection of the reactor technology, OPG had not undertaken a detailed assessment of the effects of liquid effluent and stormwater runoff to the surface water environment. Instead, OPG committed to managing liquid effluent releases in accordance with the applicable regulatory requirements and

the application of existing stormwater runoff management practices. Acknowledging that this strategy did not comply with the expectations given in the EIS Guidelines, the Panel nonetheless concluded that there was experience with respect to release limits and management practices at other nuclear facilities that could be drawn upon. As such, the Panel determined that the strategy was acceptable, subject to specific recommendations for future assessment of effluent and stormwater runoff releases by CNSC once the reactor technology selection had been made and the necessary information was available.

[146] No party alleged, and it is not apparent from the record, that OPG's failure to provide a bounding information analysis with respect to all of the environmental effects of HSE was deliberate or due to indifference on its part. Rather, the record bears out that OPG provided what it could and where specifics were lacking, it looked to future mitigative actions on its part and the prospective oversight of duly empowered regulatory bodies to address the unaddressed matters at a time when they could be addressed.

[147] In our view, the lack of bounding scenario analyses with respect to all of the environmental effects of HSE was a logical consequence of the use of the PPE approach, which was adopted because of the Province of Ontario's decision to defer the selection of reactors. We are also of the view that the Judge's finding that the Panel erred (i.e. acted unreasonably) in failing to insist upon obtaining unobtainable information constitutes an incorrect application of the reasonableness standard. To hold otherwise would, in effect, constitute the acceptance of the argument that the Judge rejected, namely, that it was inappropriate for the Panel to base the EA and EA Report on the PPE approach. We agree with the Attorney General that it was open to the

Panel to consider the proposed regulatory controls and mitigation measures and to decide, in its expert opinion, that these measures could be relied upon to mitigate the adverse environmental effects of the Project.

[148] This leads us to the question of whether it may reasonably be concluded that the Panel gave "some consideration" to the HSE environmental effects, as required by paragraphs 16(1)*(a)* and *(b)* of the Act.

[149] We again reproduce paragraph 271 of the Reasons, in which the Judge states:

> [271] On the whole, then, in the absence of bounding scenarios representing the use, storage and release of hazardous substances from the Project, the Panel relies upon an assessment that various commitments, recommendations, and regulatory controls will ensure the Project does not have significant adverse effects on the terrestrial and surface water environments.

This paragraph refers to a number of items, other than bounding scenarios with respect to HSE, which the Panel considered and upon which it based its stated HSE conclusion.

[150] The Judge went on, in paragraph 272 to find that the conclusion in paragraph 271 "may well be a reasonable conclusion". It is difficult to appreciate how the Panel could have failed to consider the HSE environmental effects and still have reached the reasonable conclusion that such effects would not have significant adverse effects upon the environment.

[151] Given the low threshold of "some consideration", established by the jurisprudence referred to above, the Panel's reliance upon the items referred to in paragraph 271 of the Reasons

demonstrates that it met the consideration requirements of paragraphs 16(1)*(a)* and *(b)* of the Act in respect of the environmental effects of HSE.

[152] As noted above, the Panel accepted the PPE approach as a basis for the EA and the EA Report, recognizing that the deferral of the selection of the type of reactors to be used in the Project would lead to an inability on the part of OPG to provide objectively measurable assessments of all of the environmental effects of the Project.

[153] This led to the absence of a bounding scenario analysis for some of the HSE environmental effects. As a result, the Panel was unable to quantitatively assess all of those environmental effects until reactor selection had occurred. Out of necessity, the Panel was left to undertake a qualitative assessment of such effects, including the existence of applicable present and future regulatory practices and mitigative measures. Clearly, the consideration by the Panel of the environmental effects of HSE was not undertaken to the same depth or extent as were other environmental effects. However, it is our view that this lesser degree of consideration nonetheless constitutes "some consideration" of the environmental effects of HSE by the Panel. Indeed, the Panel was able to make a number of recommendations with respect to the HSE environmental effects.

[154] The HSE environmental effects in respect of the Project are not anticipated to arise until the third phase of the Project, some 6 to 8 years after Project approval. Those effects are then expected to last for an additional 60 years. In this context, the Panel determined that a new EA could be required if the reactor technology, once selected, is fundamentally different than that

contemplated by the PPE approach, providing some assurance that the qualitative considerations of the HSE environmental effects of the Project in the EA Report can be replaced by quantitative considerations of such effects, if necessary.

[155] In the Government Response and in its response to the Panel's Recommendation 1, the Government of Canada committed to ensuring the implementation of appropriate follow-up programs and mitigation measures contemplated by the EA Report, and also to determine whether, as a consequence of actual reactor selection, a new EA is required.

[156] Given that there are four phases to the Project after the site preparation phase, and that each of those phases requires an approval from an RA, it is reasonable to believe that the Government of Canada will honour its commitments and will ensure that the Panel's Recommendation 1 is carried out.

[157] In conclusion, it is our view that the EA Report, the record before the Court, and indeed the Reasons themselves, demonstrate that in conducting the EA and preparing the EA Report, the Panel considered the HSE environmental effects as required by paragraphs 16(1)*(a)* and *(b)* of the Act. Accordingly, we are of the view that in concluding that the Panel failed to give consideration to the environmental effects of HSE, as required by paragraphs 16(1)*(a)* and *(b)* of the Act, the Judge misapplied the reasonableness standard of review.

VII. Disposition

[158] For the foregoing reasons, we are of the view that, in concluding that the Panel failed to comply with the consideration requirements in paragraphs 16(1)*(a)* and *(b)* of the Act in respect of the HSE Issue, the Spent Nuclear Waste Issue and the Common Cause Accident Issue, the Judge erred by misapplying the reasonableness standard. Accordingly, we would allow the appeals, set aside the judgments of the Federal Court and, rendering the judgments that ought to have been rendered, dismiss the applications for judicial review in T-1572-11 and T-1723-12, with costs to OPG in A-282-14 and in the Federal Court.

[159] A copy of these reasons shall be placed in the Court file with respect to each of the appeals.

"Johanne Trudel"
J.A.

"C. Michael Ryer"
J.A.

FEDERAL COURT OF APPEAL

NAMES OF COUNSEL AND SOLICITORS OF RECORD

APPEAL FROM A JUDGMENT OF THE FEDERAL COURT DATED May 14, 2014, NO. T-1572-11 and T-1723-12.

DOCKET:	A-282-14
STYLE OF CAUSE:	ONTARIO POWER GENERATION INC. v GREENPEACE CANADA et al AND BETWEEN ONTARIO POWER GENERATION INC. v. GREENPEACE CANADA and CANADIAN ENVIRONMENTAL LAW ASSOCIATION
AND DOCKET:	A-283-14
STYLE OF CAUSE:	CANADIAN NUCLEAR SAFETY COMMISSION v. GREENPEACE CANADA et al
AND DOCKET:	A-285-14
STYLE OF CAUSE:	ATTORNEY GENERAL OF CANADA et al v GREENPEACE CANADA et al AND BETWEEN ATTORNEY GENERAL OF CANADA v. GREENPEACE CANADA and CANADIAN ENVIRONMENTAL LAW ASSOCIATION
PLACE OF HEARING:	TORONTO, ONTARIO
DATE OF HEARING:	JUNE 2, 2015
REASONS FOR JUDGMENT BY:	TRUDEL J.A. RYER J.A.

DISSENTING REASONS BY: RENNIE J.A.

DATED: SEPTEMBER 10, 2015

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