Federal Court  Cour fédérale

Date: 20220609

Docket: T-228-21

Citation: 2022 FC 849

Ottawa, Ontario, June 9, 2022

PRESENT: The Honourable Mr. Justice Mosley

BETWEEN:

CITIZENS AGAINST RADIOACTIVE NEIGHBOURHOODS

Applicant

and

BWXT NUCLEAR ENERGY CANADA INC

Respondent

JUDGMENT AND REASONS

I. Overview

[1] This is a case where community interests are in conflict with those of a business subject to a regulatory regime designed to protect the public. The question before the Court is whether the regulatory body responsible for administering the regime failed to discharge its duties properly in rendering a decision about the operations of the company. The test the Court must

apply is not whether the Court agrees with the decision but whether it met the legal standard of reasonableness.

[2] The Applicant, Citizens Against Radioactive Neighbourhoods, seeks judicial review of a decision of the Canadian Nuclear Safety Commission [Commission] renewing BWXT Nuclear Energy Canada Inc.'s [Respondent] licence to operate two nuclear facilities in Toronto and Peterborough, Ontario. The Applicant argues that the Commission's decision was unlawful and unreasonable on account of the licence conditions attached to the production of uranium dioxide fuel pellets in the Peterborough facility, which they deem contrary to statutory and regulatory requirements.

[3] For the reasons that follow, the Court concludes that the decision was lawful and reasonable. As a result, the application for judicial review is dismissed.

II. Facts

[4] The Applicant is an unincorporated non-profit organization, based in Peterborough, and established in spring 2019 in response to the Respondent's intention to request a ten-year licence renewal from the Commission which would permit the production of uranium dioxide fuel pellets at the Peterborough facility. Previously, the pellets were produced at the Respondent's premises in Toronto and installed in fuel bundles at the Peterborough plant. The Respondent sought approval of its licence renewal with conditions that would permit it to consolidate the operation at one location, possibly Peterborough, for business reasons.

[5] The Applicant was an active participant in the review of the Respondent's licence renewal application and made numerous written and oral submissions to the Commission. The Applicant's membership incudes local residents, parents of children who currently attend or formerly attended an elementary school adjacent to the Peterborough facility, and individuals living in proximity to the plant.

[6] The Respondent is a corporation that owns and operates nuclear fuel manufacturing facilities in Toronto, Peterborough, and Arnprior. Prior to 2016, the Toronto and Peterborough facilities were operated by GE-Hitachi Nuclear Energy Canada Inc. The Commission transferred the operating licence for these facilities to the Respondent following its acquisition of that company. The original plant, which now houses the Respondent's operation in Peterborough, was apparently built in 1892. It is not clear from the record whether the area was then a residential community or that it became one thereafter.

[7] The Commission is a quasi-judicial administrative tribunal, court of record and regulator established pursuant to s 8(1) of the *Nuclear Safety and Control Act*, SC 1997, c 9 [*NSCA*]. It is statutorily mandated to regulate the development, production, use and possession of nuclear energy and nuclear substances in order to prevent unreasonable risk to the environment and to the health and safety of persons: *NSCA*, s 9(a)(i). The Commission is a specialized body with extensive technical expertise at its disposal: *Greenpeace Canada v Canada (Attorney General)*, 2014 FC 463 at para 233 [*Greenpeace FC*].

[8] On November 2, 2018, the Respondent applied [Licence Application] to the Commission for a ten-year renewal of its Nuclear Fuel Facility Operating Licence for its two Class IB facilities in Toronto and Peterborough, Ontario. The Respondent's existing licence [2010 Licence] was granted in 2010 to GE-Hitachi Nuclear Energy Canada Inc. for a ten-year term expiring on December 31, 2020. That licence was transferred to the Respondent in December 2016 following the Respondent's acquisition of the company. The 2010 Licence amalgamated the Toronto and Peterborough facilities into a single licence, allowing the production of uranium dioxide fuel pellets at the Toronto facility and fuel bundle assemblage at the Peterborough facility.

[9] Pelleting operations consist of the production of natural and depleted uranium dioxide (UO_2) pellets, which are then used together with zircalloy tubes to assemble fuel bundles for nuclear power reactors.

[10] In its Licence Application, the Respondent sought the Commission's authorization to conduct commercial fuel pelleting operations at the Peterborough facility. These operations were previously limited to only the Toronto facility under the 2010 Licence. The Peterborough facility is located in a residential area of downtown Peterborough and is immediately adjacent to an elementary school, Prince of Wales Public School.

[11] In March 2020, the Commission held a five-day public hearing with two days in Toronto and three days in Peterborough. The Commission heard from the Respondent, the Applicant, and 248 interveners.

[12] In support of its request to commence pelleting operations in Peterborough, the Respondent submitted an environmental risk assessment [ERA] to the Commission. This ERA determined that both the estimated emissions and associated risks of consolidating the operations of the Peterborough and Toronto facilities at the Peterborough facility would be low. The ERA showed that the maximum estimated annual effective dose at the Peterborough facility if pelleting operations were to be transferred would remain below the public annual dose limit of 1 mSv/y: Licence Decision at para 262.

III. Decision under Review

[13] In its Licence Decision dated December 18, 2020, the Commission renewed the Respondent's licence for a period of ten years pursuant to s 24 of the *NSCA* and severed the licence into two separate facility-specific licences for the Respondent's Toronto and Peterborough facilities. The renewed facility-specific licences, FFL-3621.00/2030 for the Toronto facility [Toronto Licence] and FFL-3620.00/2030 for the Peterborough facility [Peterborough Licence], were validated from January 1, 2021 until December 31, 2030. The Licence Decision totals 486 paragraphs and addresses several topics that are not in contention in these proceedings.

[14] Central to this case is the decision of the Commission, by a majority of four-to-one, to authorize the Respondent to produce uranium dioxide fuel pellets at its Peterborough, Ontario facility, subject to three licence conditions, or "hold points" specific to the Peterborough Licence:

- Licence Condition 15.1 requires the Respondent to submit and implement an updated environmental monitoring program at the Peterborough facility prior to the commencement of fuel pellet production: Licence Decision at para 470.

- Licence Condition 15.2 requires the Respondent to submit a final commissioning report related to production of fuel pellets that is acceptable to the Commission, prior to the commencement of commercial fuel pellet production at the Peterborough facility: Licence Decision at para 471.

- Licence Condition 15.3 stipulates that the production of fuel pellets shall be conducted at either the Toronto facility or at the Peterborough facility, but not at both facilities: Licence Decision at para 472.

[15] One dissenting Commission Member, Dr. S. Demeter, held that the Respondent's request to conduct commercial uranium dioxide fuel pelleting operations at the Peterborough facility should be denied, and that pelleting operations should remain only in Toronto.

[16] All five members of the Commission agreed that if the Respondent transferred its pelleting operations to Peterborough, "the health and safety of persons and of the environment would remain adequately protected as emission levels would remain low": Licence Decision at para 443. The Commission also found that the Respondent's Licence Application included information that was required by the *Class I Nuclear Facilities Regulations*, SOR/2000-204 [*Class I Regulations*]: Licence Decision at paras 45, 59-60, 71, 90, 114, 128, 169, 186, 304, 307, 315, 324, 332, 399, 412, 424.

[17] The Commission majority held that the Respondent is qualified pursuant to s 24(4) of the *NSCA* to conduct pelleting operations in Peterborough. Having found that the public effective dose, the air uranium dioxide releases and the effluent uranium dioxide releases are and would remain well below regulatory and licence limits, the Commission majority was satisfied that pelleting operations would be adequately safe at either the Toronto or the Peterborough facility: Licence Decision at para 444.

[18] The dissenting Commission Member did not express an opinion on the qualification of the Respondent to conduct pelleting operations in Peterborough. Rather, the dissenting Commission Member held that if the safety case can be met for either the Toronto or Peterborough facility, the request to allow pelleting in the Peterborough facility needs to be analyzed through the lenses of the "as low as reasonably achievable" [ALARA] principle, the justification principle, the precautionary principle and the relative risk of pelleting in Toronto versus Peterborough: Licence Decision at para 445. The majority and dissenting Commission Member differed in their analyses of all of these considerations.

A. *ALARA principle*

[19] In his analysis of the ALARA principle, the dissenting Commission Member considered social factors such as equity and social trust to conclude that the Respondent had not demonstrated that moving the pelleting operations to Peterborough would be acceptable. As for the factor of equity, the dissenting Commission Member held that the potential increases of radiation doses and environmental releases to the public that would result from moving pelleting operations to Peterborough are not justified based on the ALARA principle, in light of the

inequitable increased exposure to the vulnerable population given the proximity of the Prince of Wales Public School. As for social trust, the dissenting Commission Member held that the proximity of the school and the concerns from local residents are predominant factors for not allowing pelleting in Peterborough.

[20] The Commission majority was satisfied that the Respondent would comply with the ALARA principle and aim at minimizing radiation doses at the Toronto and Peterborough facilities. In their view, the very low levels of environmental releases and doses to the public would not have an impact on the health of persons and the environment, in accordance with s 24(4) of the *NSCA*.

[21] All members of the Commission were satisfied that the Respondent's radiation protection program satisfied the requirements of the ALARA principle.

B. *Relative risk of conducting pelleting at one facility versus the other*

[22] The dissenting Commission Member found that the Respondent failed to provide adequate justification for a transfer of pelleting operations to the Peterborough facility.

[23] While the majority agreed with the dissenting Commission member that the transfer of pelleting operations to Peterborough would increase the environmental emissions of uranium dioxide and the resulting dose to the public in Peterborough, it reasoned that these doses would be so negligible that they would have no health and safety impact to persons and the

environment, including to the most vulnerable population such as the students at the Prince of Wales School.

C. *Justification Principle*

[24] The dissenting Commission Member relied on the 2007 Recommendations of the International Commission on Radiological Protection (ICRP Publication 103, 2007) to conclude that the Respondent failed to provide justification for overriding the need to protect the more vulnerable population of Peterborough, and that it is therefore more justifiable to conduct pelleting operations in Toronto than in Peterborough.

[25] The Commission majority held that the Respondent is entitled to determine how best to conduct its business, and that the Commission's role is to ensure the Respondent does so safely in accordance with the *NSCA* and related regulations, which do not entrench the justification principle. As such, it held that flexibility should be built into the licence in the eventuality that the Respondent decides, for business reasons, to consolidate operations in Peterborough.

D. *Precautionary Principle*

[26] In the view of the dissenting Commission Member, even if it cannot be shown that there would be "serious or irreversible damages" resulting from the transfer of pelleting operations, the increase of radiation doses and uranium dioxide emissions at a site, which has an adjacent vulnerable population, "is not acting in an abundance of precaution".

[27] The Commission majority found that the precautionary principle would not be breached, as there would not be serious or irreversible damages resulting from the transfer of pelleting operations. The pelleting operations, the plant design and the estimated doses and environmental releases are well characterized and would be conducted in only one facility.

IV. Legislative Scheme

[28] The *NSCA* is the enabling statute of the Commission. The Commission is established pursuant to s 8(1) of the *NSCA* and its objects are enumerated at s 9 of the *NSCA*.

Establishment of Commission	**Constitution de la Commission**
Establishment of Commission	*Constitution*
8 (1) There is hereby established a body corporate to be known as the Canadian Nuclear Safety Commission.	**8 (1)** Est constituée une personne morale appelée la Commission canadienne de sûreté nucléaire.
Agent of Her Majesty	*Mandataire de Sa Majesté*
(2) The Commission is for all its purposes an agent of Her Majesty and may exercise its powers only as an agent of Her Majesty.	**(2)** La Commission est mandataire de Sa Majesté et ne peut exercer ses attributions qu'à ce titre.
Objects	**Mission**
Objects	*Mission*
9 The objects of the Commission are	**9.** La Commission a pour mission
(a) to regulate the development, production and use of nuclear energy and the production, possession and	**a)** de réglementer le développement, la production et l'utilisation de l'énergie nucléaire ainsi que la

use of nuclear substances, prescribed equipment and prescribed information in order to

production, la possession et l'utilisation des substances nucléaires, de l'équipement réglementé et des renseignements réglementés afin que :

(i) prevent unreasonable risk, to the environment and to the health and safety of persons, associated with that development, production, possession or use,

(i) le niveau de risque inhérent à ces activités tant pour la santé et la sécurité des personnes que pour l'environnement, demeure acceptable,

(ii) prevent unreasonable risk to national security associated with that development, production, possession or use, and

(ii) le niveau de risque inhérent à ces activités pour la sécurité nationale demeure acceptable,

(iii) achieve conformity with measures of control and international obligations to which Canada has agreed; and

(iii) ces activités soient exercées en conformité avec les mesures de contrôle et les obligations internationales que le Canada a assumées;

(b) to disseminate objective scientific, technical and regulatory information to the public concerning the activities of the Commission and the effects, on the environment and on the health and safety of persons, of the development, production, possession and use referred to in paragraph (a).

b) d'informer objectivement le public — sur les plans scientifique ou technique ou en ce qui concerne la réglementation du domaine de l'énergie nucléaire — sur ses activités et sur les conséquences, pour la santé et la sécurité des personnes et pour l'environnement, des activités mentionnées à l'alinéa a).

[29] The Committee's authority to issue licences is provided by s 24 of the *NSCA*. Subsection 24(4) of the *NSCA* provides the conditions under which the Commission may renew a licence following receipt of an application if the criteria set out in paragraphs (a) and (b) are met. Pursuant to s 24(5), the Commission is authorized to include in a licence "any term or condition that the Commission considers necessary for the purposes of this Act."

Licences	**Licences et permis**
Licences	*Catégories*
24 (1) The Commission may establish classes of licences authorizing the licensee to carry on any activity described in any of paragraphs 26(a) to (f) that is specified in the licence for the period that is specified in the licence.	**24 (1)** La Commission peut établir plusieurs catégories de licences et de permis; chaque licence ou permis autorise le titulaire à exercer celles des activités décrites aux alinéas 26a) à f) que la licence ou le permis mentionne, pendant la durée qui y est également mentionnée.
Application	*Demande*
(2) The Commission may issue, renew, suspend in whole or in part, amend, revoke or replace a licence, or authorize its transfer, on receipt of an application (a) in the prescribed form; (b) containing the prescribed information and undertakings and accompanied by the prescribed documents; and (c) accompanied by the prescribed fee.	**(2)** La Commission peut délivrer, renouveler, suspendre en tout ou en partie, modifier, révoquer ou remplacer une licence ou un permis ou en autoriser le transfert lorsqu'elle en reçoit la demande en la forme réglementaire, comportant les renseignements et engagements réglementaires et accompagnée des pièces et des droits réglementaires.

Refund of fees

(3) The Commission may, under the prescribed circumstances, refund all or part of any fee referred to in paragraph (2)(c).

Remboursement

(3) Dans les cas réglementaires, la Commission peut rembourser la totalité ou une partie des droits visés au paragraphe (2).

Conditions for issuance, etc.

(4) No licence shall be issued, renewed, amended or replaced — and no authorization to transfer one given — unless, in the opinion of the Commission, the applicant or, in the case of an application for an authorization to transfer the licence, the transferee

(a) is qualified to carry on the activity that the licence will authorize the licensee to carry on; and

(b) will, in carrying on that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

Conditions préalables à la délivrance

(4) La Commission ne délivre, ne renouvelle, ne modifie ou ne remplace une licence ou un permis ou n'en autorise le transfert que si elle est d'avis que l'auteur de la demande ou, s'il s'agit d'une demande d'autorisation de transfert, le cessionnaire, à la fois :

a) est compétent pour exercer les activités visées par la licence ou le permis;

b) prendra, dans le cadre de ces activités, les mesures voulues pour préserver la santé et la sécurité des personnes, pour protéger l'environnement, pour maintenir la sécurité nationale et pour respecter les obligations internationales que le Canada a assumées.

Terms and conditions of licences

(5) A licence may contain any term or condition that the Commission considers necessary for the purposes of

Conditions des licences et des permis

(5) Les licences et les permis peuvent être assortis des conditions que la Commission estime nécessaires à

this Act, including a condition that the applicant provide a financial guarantee in a form that is acceptable to the Commission.	l'application de la présente loi, notamment le versement d'une garantie financière sous une forme que la Commission juge acceptable.
Application of proceeds of financial guarantee	*Affectation du produit de la garantie financière*
(6) The Commission may authorize the application of the proceeds of any financial guarantee referred to in subsection (5) in such manner as it considers appropriate for the purposes of this Act.	**(6)** La Commission peut autoriser l'affectation du produit de la garantie financière fournie en conformité avec le paragraphe (5) de la façon qu'elle estime indiquée pour l'application de la présente loi.
Refund	*Remboursement*
(7) The Commission shall grant to any person who provided a financial guarantee under subsection (5) a refund of any of the proceeds of the guarantee that have not been spent and may give the person, in addition to the refund, interest at the prescribed rate in respect of each month or fraction of a month between the time the financial guarantee is provided and the time the refund is granted, calculated on the amount of the refund.	**(7)** La Commission rembourse à la personne qui a fourni la garantie la partie non utilisée de celle-ci; le cas échéant, elle peut ajouter les intérêts calculés au taux réglementaire sur le montant du remboursement, pour chaque mois ou partie de mois entre le moment où la garantie a été donnée et celui du remboursement.

[30] The requirements for licence applications of s 24(4) are supplemented by several regulations made under the *NSCA*: the *General Nuclear Safety and Control Regulations*, SOR/2000-202 [*General Regulations*]; *the Radiation Protection Regulations*, SOR/2000-203; and the *Class I Regulations*.

[31] Subsection 3(1) of the *General Regulations* sets out the mandatory information that must be provided in all licence applications, among them the requirement under paragraph 3(1)(e) to provide information about "the proposed measures to ensure compliance with the Radiation Protection Regulations."

Licences	**Permis**
General Application Requirements	*Dispositions générales*
3 (1) An application for a licence shall contain the following information:	**3 (1)** La demande de permis comprend les renseignements suivants :
(a) the applicant's name and business address;	**a)** le nom et l'adresse d'affaires du demandeur;
(b) the activity to be licensed and its purpose;	**b)** la nature et l'objet de l'activité visée par la demande;
(c) the name, maximum quantity and form of any nuclear substance to be encompassed by the licence;	**c)** le nom, la quantité maximale et la forme des substances nucléaires visées par la demande;
(d) a description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence;	**d)** une description de l'installation nucléaire, de l'équipement réglementé ou des renseignements réglementés visés par la demande;
(e) the proposed measures to ensure compliance with the Radiation Protection Regulations, the Nuclear Security Regulations and the Packaging and Transport of Nuclear	**e)** les mesures proposées pour assurer la conformité au Règlement sur la radioprotection, au Règlement sur la sécurité nucléaire et au Règlement sur l'emballage et le transport des substances nucléaires (2015);

Substances Regulations, 2015;

(f) any proposed action level for the purpose of section 6 of the Radiation Protection Regulations;

f) tout seuil d'intervention proposé pour l'application de l'article 6 du Règlement sur la radioprotection;

(g) the proposed measures to control access to the site of the activity to be licensed and the nuclear substance, prescribed equipment or prescribed information;

g) les mesures proposées pour contrôler l'accès aux lieux où se déroulera l'activité visée par la demande et se trouvent les substances nucléaires, l'équipement réglementé ou les renseignements réglementés;

(h) the proposed measures to prevent loss or illegal use, possession or removal of the nuclear substance, prescribed equipment or prescribed information;

h) les mesures proposées pour éviter l'utilisation, la possession ou l'enlèvement illégaux ou la perte des substances nucléaires, de l'équipement réglementé ou des renseignements réglementés;

(i) a description and the results of any test, analysis or calculation performed to substantiate the information included in the application;

i) une description et les résultats des épreuves, analyses ou calculs effectués pour corroborer les renseignements compris dans la demande;

(j) the name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including waste that may be stored, managed, processed or disposed of at the site of the activity to be

j) le nom, la quantité, la forme, l'origine et le volume des déchets radioactifs ou des déchets dangereux que l'activité visée par la demande peut produire, y compris les déchets qui peuvent être stockés provisoirement ou en permanence, gérés,

licensed, and the proposed method for managing and disposing of that waste;

traités, évacués ou éliminés sur les lieux de l'activité, et la méthode proposée pour les gérer et les stocker en permanence, les évacuer ou les éliminer;

(k) the applicant's organizational management structure insofar as it may bear on the applicant's compliance with the Act and the regulations made under the Act, including the internal allocation of functions, responsibilities and authority;

k) la structure de gestion du demandeur dans la mesure où elle peut influer sur l'observation de la Loi et de ses règlements, y compris la répartition interne des fonctions, des responsabilités et des pouvoirs;

(l) a description of any proposed financial guarantee relating to the activity to be licensed; and

l) une description de la garantie financière proposée pour l'activité visée par la demande;

(m) any other information required by the Act or the regulations made under the Act for the activity to be licensed and the nuclear substance, nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence.

m) tout autre renseignement exigé par la Loi ou ses règlements relativement à l'activité, aux substances nucléaires, aux installations nucléaires, à l'équipement réglementé ou aux renseignements réglementés visés par la demande.

(n) [Repealed, SOR/2008-119, s. 2]

n) [Abrogé, DORS/2008-119, art. 2]

(1.1) The Commission or a designated officer authorized under paragraph 37(2)(c) of the Act, may require any other

(1.1) La Commission ou un fonctionnaire désigné autorisé en vertu de l'alinéa 37(2)c) de la Loi peut demander tout

information that is necessary to enable the Commission or the designated officer to determine whether the applicant	autre renseignement nécessaire pour lui permettre d'établir si le demandeur :
(a) is qualified to carry on the activity to be licensed; or	**a)** est compétent pour exercer l'activité visée par la demande;
(b) will, in carrying on that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.	**b)** prendra, dans le cadre de l'activité, les mesures voulues pour préserver la santé et la sécurité des personnes, protéger l'environnement, maintenir la sécurité nationale et respecter les obligations internationales que le Canada a assumées.
(2) Subsection (1) does not apply in respect of an application for a licence to import or export for which the information requirements are prescribed by the Nuclear Non-Proliferation Import and Export Control Regulations, or in respect of an application for a licence to transport while in transit for which the information requirements are prescribed by the Packaging and Transport of Nuclear Substances Regulations, 2015.	**(2)** Le paragraphe (1) ne s'applique pas à la demande de permis d'importation ou d'exportation pour laquelle les renseignements exigés sont prévus par le Règlement sur le contrôle de l'importation et de l'exportation aux fins de la non-prolifération nucléaire, ou à la demande de permis de transit pour laquelle les renseignements exigés sont prévus par le Règlement sur l'emballage et le transport des substances nucléaires (2015).

[32] Paragraph 4(a) of the *Radiation Protection Regulations* provides that licensees must implement a radiation protection program that keeps the radiation dose absorbed by members of

the public “as low as reasonably achievable [ALARA], taking into account social and economic factors.”

Radiation Protection Program	**Programme de radioprotection**
4 Every licensee must implement a radiation protection program and must, as part of that program,	**4** Le titulaire de permis met en oeuvre un programme de radioprotection et, dans le cadre de ce programme :
(a) keep the effective dose and equivalent dose received by and committed to persons as low as reasonably achievable, taking into account social and economic factors, through the implementation of	**a)** maintient la dose efficace et la dose équivalente qui sont reçues par la personne, et engagées à son égard, au niveau le plus bas qu’il soit raisonnablement possible d’atteindre, compte tenu des facteurs économiques et sociaux, par :
(i) management control over work practices,	**(i)** la maîtrise des méthodes de travail par la direction,
(ii) personnel qualification and training,	**(ii)** les qualifications et la formation du personnel,
(iii) control of occupational and public exposure to radiation, and	**(iii)** le contrôle de l’exposition du personnel et du public au rayonnement,
(iv) planning for unusual situations; and	**(iv)** la préparation aux situations inhabituelles;
(b) ascertain the quantity and concentration of any nuclear substance released as a result of the licensed activity	**b)** détermine la quantité et la concentration des substances nucléaires rejetées par suite de l’exercice de l’activité autorisée :

(i) by direct measurement as a result of monitoring, or	**(i)** par mesure directe résultant du contrôle,
(ii) if the time and resources required for direct measurement as a result of monitoring outweigh the usefulness of ascertaining the quantity and concentration using that method, by estimating them.	**(ii)** par évaluation, lorsque le temps et les ressources exigés pour une mesure directe sont trop importants par rapport à son utilité.

[33] The *Class I Regulations* set out information to be included in Class I nuclear facility licence applications. Section 3 sets out general, mandatory application requirements for all Class I nuclear facilities, including descriptions of the site and structures, plans detailing the location and systems of the nuclear facility, the proposed environmental protection policies and procedures, and the proposed effluent and environmental monitoring programs.

Licence Applications	**Demandes de permis**
General Requirements	*Dispositions générales*
3 An application for a licence in respect of a Class I nuclear facility, other than a licence to abandon, shall contain the following information in addition to the information required by section 3 of the *General Nuclear Safety and Control Regulations:*	3 La demande de permis visant une installation nucléaire de catégorie I, autre qu'un permis d'abandon, comprend les renseignements suivants, outre ceux exigés à l'article 3 du *Règlement général sur la sûreté et la réglementation nucléaires :*
(a) a description of the site of the activity to be licensed, including the	**a)** une description de l'emplacement de l'activité visée par la

location of any exclusion zone and any structures within that zone;

demande, y compris l'emplacement de toute zone d'exclusion et de toute structure s'y trouvant;

(b) plans showing the location, perimeter, areas, structures and systems of the nuclear facility;

b) des plans indiquant l'emplacement, le périmètre, les aires, les ouvrages et les systèmes de l'installation nucléaire;

(c) evidence that the applicant is the owner of the site or has authority from the owner of the site to carry on the activity to be licensed;

c) la preuve que le demandeur est le propriétaire de l'emplacement ou qu'il est mandaté par celui-ci pour exercer l'activité visée;

(d) the proposed management system for the activity to be licensed, including measures to promote and support safety culture;

d) le système de gestion proposé pour l'activité visée, y compris les mesures qui seront prises pour promouvoir une culture de sûreté et l'appuyer;

(d.1) the proposed human performance program for the activity to be licensed, including measures to ensure workers' fitness for duty.

d.1) le programme de performance humaine proposé pour l'activité visée, y compris les mesures qui seront prises pour assurer l'aptitude au travail des travailleurs;

(e) the name, form, characteristics and quantity of any hazardous substances that may be on the site while the activity to be licensed is carried on;

e) le nom, la forme, les caractéristiques et la quantité des substances dangereuses qui pourraient se trouver sur l'emplacement pendant le déroulement de l'activité visée;

(f) the proposed worker health and safety policies and procedures;

f) les politiques et procédures proposées relativement à la santé et

	à la sécurité des travailleurs;
(g) the proposed environmental protection policies and procedures;	**g)** les politiques et procédures proposées relativement à la protection de l'environnement;
(h) the proposed effluent and environmental monitoring programs;	**h)** les programmes proposés pour la surveillance de l'environnement et des effluents;
(i) if the application is in respect of a nuclear facility referred to in paragraph 2(b) of the *Nuclear Security Regulations*, the information required by section 3 of those Regulations;	**i)** lorsque la demande vise une installation nucléaire mentionnée à l'alinéa 2b) du *Règlement sur la sécurité nucléaire*, les renseignements exigés à l'article 3 de ce règlement;
(j) the proposed program to inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from the activity to be licensed; and	**j)** le programme destiné à informer les personnes qui résident à proximité de l'emplacement de la nature et des caractéristiques générales des effets prévus de l'activité visée sur l'environnement ainsi que sur la santé et la sécurité des personnes;
(k) the proposed plan for the decommissioning of the nuclear facility or of the site.	**k)** le plan proposé pour le déclassement de l'installation nucléaire ou de l'emplacement.

[34] Section 6 of the *Class I Regulations* sets out additional mandatory application requirements for a licence to operate a Class I nuclear facility, including a description of

operating equipment and its design; a final safety analysis report identifying hazards and risk mitigation controls; a review of effects to the environment, health and safety of persons; the proposed emission release points; and the proposed methods of controlling the off-site impacts of nuclear substances and hazardous substances to the environment.

Licence to Operate	**Permis d'exploitation**
6 An application for a licence to operate a Class I nuclear facility shall contain the following information in addition to the information required by section 3:	**6** La demande de permis pour exploiter une installation nucléaire de catégorie I comprend les renseignements suivants, outre ceux exigés à l'article 3 :
(a) a description of the structures at the nuclear facility, including their design and their design operating conditions;	**a)** une description des ouvrages de l'installation nucléaire, y compris leur conception et leurs conditions nominales d'exploitation;
(b) a description of the systems and equipment at the nuclear facility, including their design and their design operating conditions;	**b)** une description des systèmes et de l'équipement de l'installation nucléaire, y compris leur conception et leurs conditions nominales de fonctionnement;
(c) a final safety analysis report demonstrating the adequacy of the design of the nuclear facility;	**c)** un rapport final d'analyse de la sûreté démontrant que la conception de l'installation nucléaire est adéquate;
(d) the proposed measures, policies, methods and procedures for operating and	**d)** les mesures, politiques, méthodes et procédures proposées pour l'exploitation et

maintaining the nuclear facility;

l'entretien de l'installation nucléaire;

(e) the proposed procedures for handling, storing, loading and transporting nuclear substances and hazardous substances;

e) les procédures proposées pour la manipulation, le stockage provisoire, le chargement et le transport des substances nucléaires et des substances dangereuses;

(f) the proposed measures to facilitate Canada's compliance with any applicable safeguards agreement;

f) les mesures proposées pour aider le Canada à respecter tout accord relatif aux garanties qui s'applique;

(g) the proposed commissioning program for the systems and equipment that will be used at the nuclear facility;

g) le programme de mise en service proposé pour les systèmes et l'équipement de l'installation nucléaire;

(h) the effects on the environment and the health and safety of persons that may result from the operation and decommissioning of the nuclear facility, and the measures that will be taken to prevent or mitigate those effects;

h) les effets sur l'environnement ainsi que sur la santé et la sécurité des personnes que peuvent avoir l'exploitation et le déclassement de l'installation nucléaire, de même que les mesures qui seront prises pour éviter ou atténuer ces effets;

(i) the proposed location of points of release, the proposed maximum quantities and concentrations, and the anticipated volume and flow rate of releases of

i) l'emplacement proposé des points de rejet, les quantités et les concentrations maximales proposées, ainsi que le volume et le débit d'écoulement

nuclear substances and hazardous substances into the environment, including their physical, chemical and radiological characteristics;

prévus des rejets de substances nucléaires et de substances dangereuses dans l'environnement, y compris leurs caractéristiques physiques, chimiques et radiologiques;

(j) the proposed measures to control releases of nuclear substances and hazardous substances into the environment;

j) les mesures proposées pour contrôler les rejets de substances nucléaires et de substances dangereuses dans l'environnement;

(k) the proposed measures to prevent or mitigate the effects of accidental releases of nuclear substances and hazardous substances on the environment, the health and safety of persons and the maintenance of national security, including measures to

k) les mesures proposées pour éviter ou atténuer les effets que les rejets accidentels de substances nucléaires et de substances dangereuses peuvent avoir sur l’environnement, sur la santé et la sécurité des personnes ainsi que sur le maintien de la sécurité nationale, y compris les mesures visant à :

(i) assist off-site authorities in planning and preparing to limit the effects of an accidental release,

(i) aider les autorités extérieures à effectuer la planification et la préparation en vue de limiter les effets d'un rejet accidentel,

(ii) notify off-site authorities of an accidental release or the imminence of an accidental release,

(ii) aviser les autorités extérieures d'un rejet accidentel ou de

	l'imminence d'un tel rejet,
(iii) report information to off-site authorities during and after an accidental release,	**(iii)** tenir les autorités extérieures informées pendant et après un rejet accidentel,
(iv) assist off-site authorities in dealing with the effects of an accidental release, and	**(iv)** aider les autorités extérieures à remédier aux effets d'un rejet accidentel,
(v) test the implementation of the measures to prevent or mitigate the effects of an accidental release;	**(v)** mettre à l'épreuve l'application des mesures pour éviter ou atténuer les effets d'un rejet accidentel;
(l) the proposed measures to prevent acts of sabotage or attempted sabotage at the nuclear facility, including measures to alert the licensee to such acts;	**l)** les mesures proposées pour empêcher tout acte ou tentative de sabotage à l'installation nucléaire, de même que les mesures pour alerter le titulaire de permis;
(m) the proposed responsibilities of and qualification requirements and training program for workers, including the procedures for the requalification of workers; and	**m)** les responsabilités, le programme de formation, les exigences de qualification et les mesures de requalification des travailleurs;
(n) the results that have been achieved in implementing the program for recruiting, training and qualifying workers in respect of the operation and	**n)** les résultats obtenus grâce à l'application du programme de recrutement, de formation et de qualification des travailleurs liés à

maintenance of the nuclear facility.	l'exploitation et à l'entretien de l'installation nucléaire.

[35] The Regulatory Documents of the Commission contain guidelines relating to the fulfillment of the requirements set out in the *NSCA* and its regulations. Regulatory document REGDOC-3.5.3, *Regulatory Fundamentals* outlines the CNSC's regulatory philosophy and approach to applying the *NSCA*. Its s 5.8 refers to Canada's international obligations.

5.8 International obligations	**5.8 Obligations internationales**
The CNSC participates in international fora to provide global nuclear leadership and to benefit from international experience and best practices. It also participates in undertakings implemented by the International Atomic Energy Agency (IAEA) (for example, IAEA peer reviews), the ICRP and other international organizations, as well as in activities under certain treaties such as the Convention on Nuclear Safety.	La CCSN participe à des forums internationaux en vue d'exercer un leadership mondial dans le domaine nucléaire et de tirer profit de l'expérience et des pratiques exemplaires internationales. La CCSN participe également à des activités organisées par l'Agence internationale de l'énergie atomique (AIEA) [comme les examens par les pairs de l'AIEA], la CIPR et d'autres organisations internationales, ainsi qu'à des activités prévues dans le cadre de certains traités, comme la Convention sur la sûreté nucléaire.
These international activities help inform the CNSC's decision-making processes to:	Ces activités internationales permettent d'orienter les processus décisionnels de la CCSN et l'aident :
• understand and compare various ways of evaluating and mitigating risks	• à comprendre et à comparer différentes façons d'évaluer et d'atténuer les risques

• share research and operational experience	• à partager son expérience en matière de recherche et d'exploitation

[36] Regulatory document REGDOC-2.9.1, *Environmental Principles, Assessments and Protection Measures*, describes the Commission's principles for environmental protection, the scope and responsibilities pertaining to environmental review, and the Committee's requirements and guidance to applicants and licensees for developing environmental protection measures. Section 2.1 of REGDOC-2.9.1 provides that social and economic factors must be taken into account when assessing conformity with the ALARA principle.

2.1 The CNSC's guiding principles for protection of the environment	**2.1 Principes directeurs de la CCSN en matière de protection de l'environnement**
The CNSC regulates nuclear facilities and activities in Canada to protect the environment and the health and safety of persons in a manner that is consistent with Canadian environmental policies, acts and regulations and with Canada's international obligations.	La CCSN réglemente les installations et les activités nucléaires au Canada pour protéger l'environnement ainsi que pour préserver la santé et la sécurité des personnes, et elle le fait en conformité avec les politiques, lois et règlements canadiens en matière d'environnement ainsi qu'avec les obligations internationales que le Canada a assumées.
For each facility or activity that has direct interactions with the environment, the CNSC must determine that the licensee or applicant has made adequate provision for the protection of the environment. The applicant or licensee's	Pour chaque installation ou activité présentant des interactions directes avec l'environnement, la CCSN doit déterminer que le demandeur ou le titulaire de permis a pris les mesures voulues pour protéger

licence application shall demonstrate (through performance assessments, monitoring or other assessments) that their environmental protection measures:

l'environnement. La demande de permis du demandeur ou du titulaire de permis doit démontrer (au moyen d'évaluations du rendement, de surveillance ou d'autres évaluations) que ses mesures de protection de l'environnement :

- are commensurate with the level of risk associated with the activity
- correspondent au niveau de risque associé à l'activité
- recognize that uncertainty exists in science and account for this uncertainty:
  - by keeping all releases to the environment as low as reasonably achievable (ALARA), social and economic factors being taken into account for nuclear substances
  - through the application of the best available technology and techniques economically achievable (BATEA) for
- reconnaissent les incertitudes qui existent sur le plan scientifique et tiennent compte de cette incertitude :
  - en maintenant tous les rejets dans l'environnement au niveau le plus bas qu'il soit raisonnablement possible d'atteindre (principe ALARA, de l'anglais as low as reasonably achievable), compte tenu des facteurs sociaux et économiques pour les substances nucléaires
  - en appliquant le principe des « meilleures techniques existantes d'application rentable » (MTEAR) pour

hazardous substances	les substances dangereuses
• respect the precautionary principle, the "polluter pays" principle, and the concepts of pollution prevention, sustainable development and adaptive management	• respectent le principe de prudence, le principe du « pollueur-payeur » et les concepts de prévention de la pollution, du développement durable et de la gestion adaptative
• are assessed against performance indicators and targets that are based on sound science	• sont évaluées par rapport à des indicateurs de rendement et des objectifs fondés sur des données scientifiques rigoureuses
The following sections of this regulatory document provide information on how to meet these principles. The CNSC assesses proposed alternative approaches and takes into account the views and proposals of the licensee concerning their individual situations.	Les sections suivantes de ce document d'application de la réglementation fournissent des renseignements sur la façon de satisfaire à ces principes. La CCSN évalue les autres approches proposées et tient compte des points de vue et des propositions du titulaire de permis concernant sa situation personnelle.

V. Issues and Standard of Review

A. *Issues*

[37] This application raises the following issue: Was it reasonable for the Commission to authorize pelleting operations at the Peterborough facility subject to Licence Conditions 15.1, 15.2, and 15.3?

[38] As a preliminary matter, the Respondent submitted that the Applicant's argument regarding alleged non-compliance with the *Class I Regulations* was raised for the first time on judicial review, as opposed to before the Commission. The Court heard submissions on this question at the outset of the hearing and agreed with the Applicant in brief oral reasons that compliance with the *Class I Regulations* was not a new issue. The question of whether the Applicant raised this in its presentations and closing recommendations to the Commission is not determinative, as the Commission considered the issue in its decision, and found that the Respondent's Licence Application included information that was required by the *Class I Regulations*. The Applicant was accordingly permitted to address the issue in its submissions.

[39] In the analysis that follows, the question at issue will be assessed by means of the three following sub-questions:

A. Did the Commission have the authority to attach the Licence Conditions?

B. Did the Respondent's Application omit mandatory information, without which the Commission lacked a sufficient basis on which to make a reasonable decision?

C. Did the Commission fail to properly consider the ALARA principle, the justification principle, or the precautionary principle?

B. *Standard of Review*

[40] As agreed upon by the parties, the standard of reasonableness applies to the present application. None of the situations that allow for a departure from the presumption of the reasonableness standard are applicable in this case: *Canada (Minister of Citizenship and Immigration) v Vavilov*, 2019 SCC 65 [*Vavilov*] at paras 17, 25; *Canada Post Corporation v Canadian Union of Postal Workers*, 2019 SCC 67 at para 27.

[41] A reasonable decision is "based on an internally coherent and rational chain of analysis" and is "justified in relation to the facts and law that constrain the decision maker": *Vavilov* at para 85. It must encompass the characteristics of a reasonable decision, namely, justification, transparency and intelligibility: *Vavilov* at para 99, citing *Dunsmuir v New Brunswick*, 2008 SCC 9 at paras 47 and 74; *Catalyst Paper Corp v North Cowichan (District)*, 2012 SCC 2 at para 13. The reviewing court must adopt a deferential approach and intervene only "where it is truly necessary to do so in order to safeguard the legality, rationality and fairness of the administrative process": *Vavilov* at para 13.

[42] The guidance of the Federal Court of Appeal in *Greenpeace Canada v Canada (Attorney General)*, 2016 FCA 114 [*Greenpeace FCA*], as concerns the application of the reasonableness standard to decisions of the Commission, is directly relevant to the case at bar:

> [60] Where, as here, the issues at play involve detailed factual findings and discretionary decisions within the heartland of the tribunal's expertise, the reasonableness standard requires that considerable deference be given to the tribunal's determinations. This is particularly so when the issues under review concern nuclear safety and the tribunal is the nuclear safety regulator. In

> short, the CNSC is much better placed than a reviewing court to factually assess and determine what types of possible accidents are likely to occur at a nuclear power plant and how to conduct the assessment of the environmental impacts of potential accidents. It is therefore inappropriate for a reviewing court to second-guess these determinations through a detailed re-examination of the evidence as the appellants would have us do in the instant case.

VI. Analysis

A. *Was it reasonable for the Commission to authorize pelleting operations at the Peterborough facility subject to Licence Conditions 15.1, 15.2, and 15.3?*

(1) Did the Commission have the authority to attach the Licence Conditions?

[43] It appears from the Decision (at para 435) that the reason provided by the Respondent to the Commission for requesting license approval for pelleting in Peterborough was that the company wanted some assurance that it was feasible before exploring the option. No decision had apparently been made regarding that option.

[44] The Applicant submits that it was unlawful for the Commission to issue Licence Conditions that are not consistent with the regulatory purpose of licensing: *ATCO Gas & Pipelines Ltd. v Alberta (Energy and Utilities Board)*, 2006 SCC 4 at paras 49-50 [*ATCO*].

[45] In *ATCO*, at para 50, the Supreme Court emphasized that the grant of authority to exercise a discretion does not confer unlimited discretion to the decision-maker. The discretion must be exercised within the confines of the statutory regime and principles generally applicable to regulatory matters.

[46] The Applicant argues that it was unreasonable for the Commission to qualify the Licence Conditions as “hold points” for which the Respondent has to provide proof before proceeding with pelleting, as in so doing, the Commission has deferred a decision it was required to make within a public hearing and under its enabling statute.

[47] The terminology of “hold points” to which the Applicant refers is not found in the Licence Decision, but rather in the transcript of the March 4, 2020 public hearing which reads as follows:

> Now everything, all requirements has to be met and then we will provide you with either a hold point by which the applicant has to provide proof to the Commission and then we will put the process in place according to the rule of procedures.

[48] Reliance on “hold points”, the Applicant contends, relieves the Respondent from mandatory application obligations, as the information the Commission would later receive to determine whether hold points are fulfilled is the information that was legally required for the licence application itself. The Applicant submits that this approach defers key elements of analysis to a later date and thus renders the decision-making process meaningless.

[49] The imposition of hold points, rather than conditions precedent to the licence, is inconsistent with the regulatory scheme, according to the Applicant, as the *General Regulations* and *Class I Regulations* set out the information which is required in an application prior to a licence being granted, and not after the granting of a licence.

[50] The Applicants rely on *Morton v Canada (Fisheries and Oceans)*, 2015 FC 575 at para 98 [*Morton*] to assert that licence conditions cannot derogate from or be inconsistent with the regulatory scheme.

[51] The Commission's use of hold points also denies the public the opportunity to be heard, thus violating s 40 of the *NSCA*, the Applicant argues. By not providing information specific to pelleting at the Peterborough facility, to which interveners ought to have been able to respond in the licensing process, public participation was denied. The Applicant submits that this approach lacked transparency and failed to meet the statutory purpose under paragraph 9(b) of the *NSCA* of disseminating information to the public.

[52] The Commission's rationale for attaching the hold points to the licence – the fact that the Respondent had sought flexibility in its licence in case it decided to consolidate operations in Peterborough for business reasons – does not reflect the purposes of the statute nor the obligations of the Commission set out by ss 3 and 24(4) of the *NSCA*, in the Applicant's view.

[53] The Respondent submits that the imposition of "hold points" was consistent with the Commission's regulatory practice, as evidenced by regulatory document REGDOC-3.5.1, Licensing Process for Class I Nuclear Facilities and Uranium Mines and Mills (Version 2) at p 9, which notes that the "first licence to operate [a Class I] facility is typically issued with conditions (hold points)."

[54] Moreover, as demonstrated by three recent decisions dating from 2015 to 2018, involving Ontario Power Generation, the Saskatchewan Research Council and Bruce Power, the imposition of hold points was not an unusual exercise of the Commission's regulatory authority. In each of these decisions, the Commission imposed licence conditions in the form of forward-looking hold points rather than conditions precedent. The Court agrees with the Respondent that accepting the Applicant's position would result in regulatory uncertainty and confusion, as it would cast doubt over the Commission's jurisdiction to supervise and monitor these facilities and existing hold point arrangements.

[55] In the Court's view, *Morton* is inapplicable to the present matter as it pertained to a licence condition issued pursuant to the *Fishery General Regulations*, SOR/93-53, which contain no equivalent to s 24(5) of the *NSCA*. While s 24(5) of the *NSCA* provides that the Commission can attach any term or condition considered necessary, s 22(1) of the *Fishery General Regulations* set forth the opposite instruction in providing that "the Minister may specify in a licence any condition that is not inconsistent with these Regulations": *Morton* at para 8.

[56] As a creature of statute, the Commission has only such legal authority as the legislature has expressly or by implication conferred on it. Judicial interpretation of such authority must endeavour within the scope of the legislation to give effect to its provisions so that the administrative agencies created may function effectively, as the legislature intended: *Maple Lodge Farms v Government of Canada*, [1982] 2 SCR 2 at 7; *Vavilov* at para 308.

[57] Where the legislature chooses to grant authority to a decision maker using broad, open-ended or highly qualitative language, with no right of appeal to a court, then the legislature's intention that the decision maker have greater flexibility in interpreting its enabling statute should be given effect: *Vavilov* at paras 68, 110.

> [68] Reasonableness review does not give administrative decision makers free rein in interpreting their enabling statutes, and therefore does not give them licence to enlarge their powers beyond what the legislature intended. Instead, it confirms that the governing statutory scheme will always operate as a constraint on administrative decision makers and as a limit on their authority. Even where the reasonableness standard is applied in reviewing a decision maker's interpretation of its authority, precise or narrow statutory language will necessarily limit the number of *reasonable* interpretations open to the decision maker — perhaps limiting it one. Conversely, where the legislature has afforded a decision maker broad powers in general terms — and has provided no right of appeal to a court — the legislature's intention that the decision maker have greater leeway in interpreting its enabling statute should be given effect. […]
>
> [110] Whether an interpretation is justified will depend on the context, including the language chosen by the legislature in describing the limits and contours of the decision maker's authority. If a legislature wishes to precisely circumscribe an administrative decision maker's power in some respect, it can do so by using precise and narrow language and delineating the power in detail, thereby tightly constraining the decision maker's ability to interpret the provision. Conversely, where the legislature chooses to use broad, open-ended or highly qualitative language — for example, "in the public interest" — it clearly contemplates that the decision maker is to have greater flexibility in interpreting the meaning of such language. […]
>
> [Emphasis added]

[58] Parliament did precisely this in providing that the Commission may attach to a licence "any term or condition that the Commission considers necessary for the purposes of this Act," pursuant to s 24(5) of the *NSCA*. This is but one of the several "broad powers" the legislature has

conferred on the Commission with regard to granting licences, pursuant to ss 24 and 25 of the *NSCA*: *Athabasca Regional Government v Canada (Attorney General),* 2010 FC 948 at para 236. Thus, the intention was that the Commission is to have significant leeway in interpreting the meaning of s 24(5) of the *NSCA*.

[59] The broad and open language of s 24(5) is, in the Court's view, a complete response to the question of whether the license conditions were lawful, as the enactment provides the Commission with statutory authority to issue licence conditions in the form of hold points that must be satisfied prospectively. The attachment of conditions in the form of hold points is not a deferral of a decision, but rather an integral part of the decision that the Commission made. Thus, the Commission's decision was fully compliant with its enabling statute.

[60] The Applicant's submissions that the use of hold points denies the public the opportunity to be heard and impedes the dissemination of information to the public in violation of ss 40 and 9(b) of the *NSCA* are premature, as the Respondent contends. The Commission has not yet made a decision on whether to hold a public hearing regarding the Respondent's satisfaction of the hold points and the record does not support a finding that it will not do so. The Commission ordered a public proceeding to occur not later than 2026 where the Respondent must present "comprehensive mid-term updates on its licensed activities" to the Commission: Licence Decision at paras 23, 480.

[61] As a general principle, the Court should avoid interfering with ongoing administrative processes until after they are completed: *Canada (Border Services Agency) v CB Powell Ltd*, 2010 FCA 61 at para 31; *Klos v Canada (Attorney General)*, 2021 FCA 238 at para 6.

[62] In the result, the Court is satisfied that it was reasonable and lawful for the Commission to attach the Licence Conditions in the form of "hold points" to the Peterborough Licence.

B. *Did the Respondent's Application omit mandatory information, without which the Commission lacked a sufficient basis on which to make a reasonable decision?*

[63] The Applicant submits that the Respondent failed to provide the following requisite information in its Licence Application:

- Information about four of the fourteen Safety and Control Areas (SCA) used by the Commission to assess compliance with regulatory compliance, namely: (i) operating performance; (ii) safety analysis; (iii) physical design; and (iv) environmental protection;
- Three categories of information required by the *Class I Regulations* and the *Radiation Protection Regulations*, namely:
    (i) information regarding its proposed environmental protection policies for the Peterborough facility (as required by paragraph 3(g) of the *Class I Regulations*);
    (ii) information regarding its proposed effluent and environmental monitoring programs for the Peterborough facility (as required by paragraph 3(h) of the *Class I Regulations*); and
    (iii) information regarding the Peterborough facility's design and layout, emissions release points and environmental effects (as required by section 6 of the *Class I Regulations*).

[64] Safety and control areas [SCAs] are the technical topics used by the Commission to assess, review, verify and report on regulatory requirements and performance across all regulated facilities and activities. There are fourteen distinct SCAs, among them operative performance, safety analysis, physical design, and environmental protection.

[65] The Applicant submits that the Commission authorized pelleting at the Peterborough facility despite finding that the Respondent's licence application did not include requisite information about four SCAs: operative performance, safety analysis, physical design, and environmental protection. In the Applicant's view, this is unlawful, as it is contrary to s 24(4) of the *NSCA*, which requires the Commission to determine whether the licensee has made adequate provision for the protection of the environment and the health and safety of persons.

[66] Information pertaining to the SCA of operating performance was omitted, as the Respondent had not yet carried out a complete assessment on how the pelleting operation would be moved to the Peterborough facility and whether significant changes to the assurance process would be needed. According to the Applicant, such operating performance information is mandatory in applications per paragraph 6(d) of the *Class I Regulations*.

[67] Information pertaining to the SCA of safety analysis was omitted, as the Commission found that the Respondent had not updated its existing Safety Analysis Report [SAR] for the Peterborough facility, but rather adopted the SAR currently in place for its pelleting operations in Toronto. This, in the Applicant's view, was a violation of paragraph 6 (c) of the *Class I Regulations.*

[68] As the Respondent had not completed the design for modifications to equipment, structures, systems and components such as stacks and emissions modelling necessary for pelleting to occur in Peterborough, information pertaining to the SCA of physical design was omitted. This omission, the Applicant contends, violates paragraphs 3(a), (b), (e) and (h) and paragraphs 6(a) and (b) of the *Class I Regulations*.

[69] Information pertaining to the SCA of environmental protection was omitted, as the Commission found that the Respondent had not updated its environmental monitoring program to account for pelleting operations at the Peterborough facility. Such information was required, according to the Applicant, by ss 4.2 and 4.3 of RegDoc 2.9.1 and paragraphs 3(g) and 3(h) of the *Class I Regulations* in order to identify, seek to control, and monitor all releases of radioactive and hazardous substances to the environment.

[70] The absence of the information pertaining to the four SCA's, the Applicant submits, deprived the Commission of the requisite material to make a reasonable decision under s 24(4) of the *NSCA* to authorize the Respondent's transfer of pelleting operations to Peterborough.

[71] The Applicant submits that the Respondent's licence application failed to include the requisite information regarding its proposed environmental protection policies and proposed effluent and environmental monitoring programs for the Peterborough facility (as required by paragraphs 3(g) and 3(h) of the *Class I Regulations*), as well as the requisite information regarding the Peterborough facility's design and layout, emissions release points and environmental effects (as required by s 6 of the *Class I Regulations*).

[72] The Respondent contends that it provided information responsive to each of the SCAs as well as each of its regulatory requirements, and that the Commission did not commit an error in unanimously recognizing that the Respondent had satisfied the requirements of the *Class I Regulations*. The Respondent argues that the Environmental Risk Assessment (ERA) it submitted to the Commission, which concluded that the proposed consolidated facility would produce emissions and radiation exposure at mere fractions of the licence or regulatory limits, provides information responsive to the requirements of paragraphs 3(g), 3(h), 6(h), 6(i), 6(j) and 6(k) of the *Class I Regulations*. Moreover, the Respondent submits that it provided detailed information regarding its environmental monitoring program in conformity with s 6(h) of the *Class I Regulations,* and notes that it proposed transferring its air and soil monitoring practices from Toronto to Peterborough if it commenced pelleting in Peterborough, which is the same obligation created by Licence Condition 15.1. The ERA, the Respondent submits, was site specific as it expressly accounts for local climate and meteorology, geology, groundwater flow, surface water, terrestrial and aquatic environments, land use and the presence of the Prince of Wales Public School.

[73] The Court agrees with the Respondent that the sufficiency of an application under the *Class I Regulations* is a subjective standard left to the Commission to enforce, as the Regulations provide broad, general standards, and terms defined without scientific precision. These broadly defined standards leave room for the Commission’s judgment. It is worth noting that the Commission itself wrote the *Class I Regulations* pursuant to s 44 of the *NSCA.* Calibration of the precise level of specificity required by these broad terms is a matter Parliament left for the Commission, not for the Applicant or the Court.

[74] It was reasonable, in the Court's view, for the data and practices related to the Toronto facility to be transposed to the Peterborough facility for the purpose of the ERA and environmental monitoring program. This approach is supported by the regulatory guidance provided by REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and Protection Measures, which stipulates that initial ERAs of new facilities or activities are "based on best estimates of the facility- or activity-specific characteristics" and "primarily predictive", as they involve assessing the potential effects of a hypothetical facility or activity. The use of the Toronto facility data presented a stronger, more reliable safety case than mere predictive assessments of a hypothetical facility that had yet to commence operations. It was open to the Commission to accept the 2016 data as it is best suited to make such a finding.

[75] With respect to the SCA of safety analysis, it was also reasonable for the Commission to rely on the Respondent's safety analysis report from Toronto to satisfy paragraph 6(c) of the *Class I Regulations*, as well as the Commission's request for a mid-licence update prior to the commencement of pelleting operations in Peterborough, pursuant to Licence Condition 15.2.

[76] The Respondent submits that it devoted 14 pages of its 58-page licence application to the proposed measures, policies, methods and procedures for operating and maintaining the nuclear facility, and thus satisfied the requirements of s 6(d) of the *Class I Regulations*. The Respondent argues that the information relating to the Toronto facility was transferrable, as much of this information is comprised of general practices and policies that would apply no matter where pelleting took place, and because the Respondent plans to implement the exact same process if

pelleting is transferred to the Peterborough facility. It was reasonable for the Commission to rely on this information.

[77] As for the SCA of physical design, the Respondent argues that it provided descriptions of the locations, structures, systems and equipment used as required under paragraphs 3(a), 3(b), 6(a) and 6(b) of the *Class I Regulations*. Pelleting operations in Peterborough would be conducted within the existing licensed facility via a reconfiguration of existing space, and no new buildings would be constructed. Any changes and modifications that may occur during the licence period would be governed by the Respondent's change management plan, which was approved by the Commission. Furthermore, the Respondent submits that its ERA provides information on release points for the proposed consolidated facility, as required by paragraph 6(i) of the *Class I Regulations*. The Commission was aware that the exact placement of new release points had not yet been finalized but was still satisfied that the Respondent had provided sufficient information for the Commission to exercise its authority under s 24(4).

[78] It does not constitute a reviewable error for the Commission to require additional information from a licensee in the future. Changes to a licensed facility or activity are expected. The Commission's authority to attach any condition it considers necessary would have little or no purpose if licence applications must fully account for every contingency during the licence period.

[79] The Commission did not lack a sufficient basis on which to make a reasonable decision, as it was reasonable for it to rely on the information that the Respondent provided pursuant to its

statutory and regulatory requirements. The Commission's exercise of its discretion should not be interfered with merely because such discretion could have been exercised in a different manner: *Maple Lodge Farms v Government of Canada*, [1982] 2 SCR 2 at 7.

[80] In *Greenpeace FC*, the Federal Court held that it was reasonable for the Commission to accept plans that were "far from final" as meeting the requirements of s 3 of the *Class I Regulations*: *Greenpeace FC* at para 409. In any case, the Commission's requests for further information do not constitute findings to the effect that the Respondent failed to provide adequate information to make a decision. The appreciation of the adequacy of the information before the Commission is a matter properly left to the judgment of the Commission, which has a high degree of expertise in such matters: *Alberta Wilderness Assn. v Express Pipelines Ltd*, 1996 CanLII 12470 (FCA) at para 9; *Greenpeace FCA* at para 60. As the Federal Court of Appeal stated in *Greenpeace FCA*, it is "inappropriate for a reviewing court to second-guess these determinations through a detailed re-examination of the evidence as the appellants would have us do in the instant case": *Greenpeace FCA* at para 60.

[81] The Court is therefore satisfied that the Commission had a sufficient basis on which to make reasonable conclusions pertaining to the SCAs of operating performance, safety analysis, physical design and environmental protection, as well as conformity with the *Class I Regulations*. It is not the proper role of this Court to re-evaluate the evidence and come to a different conclusion as to whether the requirements of the *Class I Regulations* were satisfied.

C. *Did the Commission fail to properly consider the ALARA principle, the justification principle, or the precautionary principle?*

[82] The Applicant submits that the Commission exercised its discretion unreasonably in light of three principles: (i) the ALARA principle; (ii) the justification principle; and (iii) the precautionary principle. These principles, the Applicant argues, have been entrenched in international law and ss 3, 9 and 24 (4) of the *NSCA* required that they be applied by the Commission.

[83] The Applicant relies on *Kazemi Estate v Islamic Republic of Iran*, 2014 SCC 62 [*Kazemi*] at para 61 to submit that legislation is presumed to operate in conformity with Canada's international obligations, and that those obligations must inform decision-makers as they interpret and apply laws.

[84] The Applicant submits that the term "international obligations" in s 24(4) of the *NSCA* must be interpreted to include the three core principles of radiation protection: justification, optimization of radiation protection (or ALARA), and dose limitation (the radiation protection principles). The Applicant contends that the Court's interpretation of s 24(4) should be guided by the legal test for establishing customary international law, as it is designed to incorporate elements of international law into domestic law that are not in the form of treaties.

[85] The mere existence of a customary rule in international law does not automatically incorporate that rule into the domestic legal order: *Kazemi*, at para 61. There are two requirements for a norm of customary international law to be recognized in Canadian law: (a) a general but not necessarily universal practice, and (b) *opinio juris*, the belief that such practice amounts to a legal obligation: *Nevsun Resources Ltd v Araya*, 2020 SCC 5 at para 77.

[86] The Applicant contends that these criteria are satisfied by Canada's adherence to the International Commission for Radiation Protection's [ICRP] 1977 recommendations on radiological protection that have been adopted within the International Atomic Energy Agency Fundamental Safety Principles. These Fundamental Safety Principles are centred on the three core principles enumerated above. The Applicant also asserts that this general practice of justification analysis includes consideration of factors such as societal and ethical aspects: s 3.85 of the International Atomic Energy Agency, "Radiation Protection of the Public Environment".

[87] The Applicant also relies on a statement by the Commission in 2019 to the ICRP that its licensing process embodies the exercise of justification: Canadian Nuclear Safety Commission, "Canada's response to the 2019 IRRS Report".

(a) *ALARA Principle*

[88] The Applicant argues that it was unreasonable for the Commission to authorize the Licence Conditions when its decision specifically rejected contemplation of the social and economic factors necessary to assess whether doses of nuclear substances to the public and environment complied with the ALARA principle. Thus, the Applicant contends that the Commission failed to implement the ALARA principle by rejecting contemplation of social and economic factors, contrary to paragraph 4(a) of the *Radiation Protection Regulations*.

[89] The Applicant notes that s 5.0 of the Regulatory Guide G-129, Rev. 1, *Keeping Radiation Exposures and Doses* "*As Low as Reasonably Achievable (ALARA)*", the predecessor of draft RegDoc 2.7.1 *Radiation Protection*, confirms that the ALARA principle takes into consideration

relevant social and economic factors, including the views of the public. Furthermore, the Applicant maintains that implementation of the ALARA principle is required by ss 2.1, and 4.2.1 of REGDOC-2.9.1 *Environmental Protection,* ss 2.1.1, 2.1.2, 2.2.2, and 3.1 of RegDoc 2.9.2 Controlling Releases to the Environment (draft 2021), and by Appendix B of RegDoc 3.1.2 *Reporting Requirements, Volume 1: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*.

[90] In support of its argument that the Commission failed to take into account social considerations in accordance with the ALARA principle, the Applicant cites passages in the transcript of the public hearings in which the President of the Commission stated several times that "[t]he mandate of the Commission also does not include a requirement that licensed activities have community support, local buy-in, social licence or social acceptability. […] the Commission is not mandated to adjudicate social licence considerations".

[91] In addition to the entrenchment of the ALARA principle in domestic regulations, the Applicant argues that the ALARA principle is also a core international obligation that must be applied by the Commission pursuant to s 24(4) of the *NSCA*. The Applicant contends that Canada is obligated to take all appropriate steps to ensure that radiation exposure is kept "ALARA" by article 15 of the *Convention on Nuclear Safety* and thus the Commission was required to consider the ALARA principle, including social and economic factors.

[92] The Respondent submits that the majority of the Commission properly considered the ALARA principle. It argues that the principle does not independently inform the Commission's

licensing decisions. Rather, the Respondent argues, the ALARA principle is implemented through the *Radiation Protection Regulations* and requires licensees to implement a radiation protection program; the Commission applies ALARA by ensuring this program is satisfactory: Regulatory Guide G-129, Rev. 1, *Keeping Radiation Exposures and Doses* "*As Low as Reasonably Achievable (ALARA)*", ss. 1.0, 2.0, 4.0. The Respondent complies with this by, for example, monitoring radiation doses, implementing "action levels" and establishing an ALARA Committee. There is no independent obligation for the Commission to exercise its discretion in a manner that is ALARA-compliant, but rather, only an obligation for the licensee to implement measures that optimize radiation doses. The Commission majority decision ensures that efforts to reduce doses are proportionate to the risk in stressing that "the very low levels of environmental releases and doses to the public" created by the potential consolidation of the two facilities "would not have an impact on the health of persons and the environment": Licence Decision at para 447.

[93] There is no provision in the *Radiation Protection Regulations*, nor in any regulatory or guidance document requiring the Commission to exercise its discretion in accordance with the ALARA principle in its assessment of radiation protection programs. Rather, paragraph 4(a) of the *Radiation Protection Regulations* entrenches the ALARA principle only insofar as it pertains to the design of a radiation protection program by a Licensee. None of the regulations or regulatory documents cited by the Applicant create an obligation for the Commission's decisions to comply with the ALARA principle, nor for its decisions to take into account social considerations in applying that principle. While such factors are to be found in the draft regulatory document relied upon by the dissenting Commission Member, they have yet to be

adopted in domestic law. Legislative changes would be necessary for social factors to have an impact on the Commission's licence discretion. A representative of the Applicant at the Commission hearing conceded this.

[94] In any event, the draft regulatory document relied upon by the Applicant, RegDoc 2.7.1 at s 4.1.3, provides that the ALARA principle must be implemented by the Licensee, and not by the Commission. Regulatory Guide G-129, Rev. 1, which is currently in force, provides that the Commission "looks at the processes adopted by licensees to maintain doses ALARA as evidence of compliance with paragraph 4(a) of the *Radiation Protection Regulatio*ns": Regulatory Guide G-129, Rev. 1, s 4.0.

[95] In the Court's view, the Commission did not unreasonably fail to implement the ALARA principle as there was no obligation for it to do so in its decision. The Commission properly found that the Respondent complied with the ALARA principle by monitoring radiation doses, implementing "action levels" and establishing an ALARA Committee.

(b) *Justification Principle*

[96] The Applicant submits that the Licence Decision is unreasonable because it does not comply with the principle of justification and thus does not meet the requirement under s 24(4) of the *NSCA* to implement international obligations. According to the Applicant, the justification principle dictates that the Commission could not authorize pelleting operations in the Peterborough facility without finding that the advantage posed by exposure to additional levels of ionizing radiation outweighed any risks.

[97] The Respondent submits that the justification principle has not been incorporated or adopted into the *NSCA*, its regulations or any of the Commission's regulatory guidance. Canada has not agreed to adopt or incorporate the justification principle into domestic law; thus, reference to "intentional obligations" in the *NSCA* does not entrench the justification principle. The Respondent further notes that Canada expressly rejected a request from the International Atomic Energy Agency to incorporate the justification principle explicitly into its legal framework: Canadian Nuclear Safety Commission, "Canada's response to the 2019 IRRS Report", pp 3-4. In light of Canada's express rejection of the principle, the Respondent argues that it cannot qualify as customary international law either, as it fails the criterion requiring that the practice be motivated by the belief that such practice amounts to a legal obligation. Finally, the Respondent notes that while the justification principle under international law requires an assessment of whether the benefits outweigh the harm, the Commission's approach to justification differs in that the Commission "justifies" its decisions on the basis that there is no unreasonable risk. According to the Respondent, the Commission majority affirmed this understanding of the justification principle in its reasons, explaining that its role is to apply the *NSCA* and its regulations to ensure that the Respondent is operating safely within those regulatory boundaries.

[98] The Court agrees with the Respondent that the term "international obligations" in s 24(4) of the *NSCA* does not entrench the justification principle. Absent express incorporation, the normative content of Canada's domestic laws does not include principles of international law. In the Federal Court of Appeal's unanimous *Entertainment Software Association v. SOCAN*, 2020

FCA 100 decision, Justice Stratas articulated the following principles with respect to international norms:

> [77] Too often these days, we see these misuses. International law enters legal debates before courts and administrative decision-makers only in specific, defined ways that are consistent with settled doctrine and our constitutional framework: *Gitxaala Nation v. Canada*, 2015 FCA 73.
>
> […]
>
> [80] For this fundamental reason, international instruments cannot become Canadian law without domestic legislative action. Put another way, international instruments are not self-executing in Canadian domestic law. They must be incorporated into Canadian domestic law by legislation that adopts the international instrument in whole or in part or enacts standards borrowed from or related to that instrument: *Capital Cities Comm. v. C.R.T.C.*, 1977 CanLII 12 (SCC), [1978] 2 S.C.R. 141, 81 D.L.R. (3d) 609 at 171-172 S.C.R.; *Baker v. Canada (Minister of Citizenship and Immigration)*, 1999 CanLII 699 (SCC), [1999] 2 S.C.R. 817, 174 D.L.R. (4th) 193; and many others. If Parliament decides not to adopt a particular international instrument, that instrument does not become binding domestic law: *Ordon Estate v. Grail*, 1998 CanLII 771 (SCC), [1998] 3 S.C.R. 437, 166 D.L.R. (4th) 193 at para. 137. Those who want it to be binding law have only one recourse: they must persuade some politicians to make it so.
>
> […]
>
> [87] The foregoing principles apply to administrative decision-makers as well as courts. Like courts, administrative decision-makers must interpret legislation by examining its text, context and purpose: *Vavilov* at paras. 120-121. As discussed above, under that method, international law enters into the analysis only in certain ways.

[99] In its response to the International Atomic Energy Agency declining its request to expressly incorporate the justification principle, the Commission noted that its licensing process "embodies" the justification principle of international law; however, it drew a distinction

between the exercise of justification under s 24(4) of the *NSCA*, which requires that decisions be justified on the basis that there is no unreasonable risk, and the justification principle as understood under international law, which requires an assessment of whether the benefits outweigh the harm. Therefore, it cannot be said that the justification principle, as understood under international law, is believed to amount to a legal obligation in Canada. As such, it does not satisfy the criterion of *opinio juris* and does not constitute a norm of customary international law.

(c) *Precautionary Principle*

[100] The Applicant relies on *114957 Canada Ltée (Spraytech, Société d'arrosage) v Hudson (Town)*, 2001 SCC 40 at paras 30-32 [*Spraytech*] to argue that the Commission failed to apply the precautionary principle, as enshrined in Principle 15 of the *Rio Declaration on Environment and Development*, UN Conference on Environment and Development, UN Doc A/CONF 151/Rev 1 (1992) and required by the Commission's guidance document "Implementation of the Precautionary and Sustainable Development Principles in Nuclear Law – A Canadian Perspective". The Applicant argues despite the Commission's assertion that the estimated doses and environmental releases of potential pelleting operations at the Peterborough facility are "well characterized", the Commission made a decision without the necessary site-specific evidence, contrary to the precautionary principle.

[101] The Respondent submits that the Commission properly decided not to apply the precautionary principle, as there were no threats of "serious or irreversible damage". The Respondent cites the definition of the precautionary principle in *Spraytech* at para 31, wherein

the Supreme Court confirms that the principle is triggered "where there are threats of serious or irreversible damage". Furthermore, the Respondent argues that the dissenting Commission Member overextended or reinterpreted the precautionary principle by suggesting that he was not satisfied because the transfer of pelleting operations to Peterborough would not amount to "acting in an abundance of caution".

[102] The Court agrees with the Respondent that, applying the definition in *Spraytech*, the precautionary principle was not engaged in this instance. The Commission majority expressly found that "there would not be serious or irreversible damages" resulting from the transfer of pelleting operations to Peterborough. The dissenting Commission Member conceded "it would be difficult to argue that there is potential for 'serious or irreversible damages' with moving the pelleting operations". The test is not, as the dissenting Member suggested, that the principle was breached because the transfer to Peterborough would not amount to "acting in an abundance of caution". Thus it was reasonable for the Commission majority to determine that the precautionary principle was not engaged.

VII. Conclusion

[103] In the application of the reasonableness standard, the Court is not empowered to substitute its own view of the merits of the underlying matter. Reasonable people can disagree about whether expanding an industrial operation involving nuclear materials in a residential district and adjacent to a primary school is wise. The Court is aware that the City of Peterborough has a long industrial history. It appears that the Respondent's facility has been in its present location for many years under the present and previous owners. The record does not

indicate when the school was built in that neighbourhood or whether the Respondent's facility was being used for handling nuclear materials when the school was constructed. The concerns of residents in that neighbourhood, especially the parents of the children attending that school, are understandable notwithstanding the evidence and the findings of the Commission members, including the dissenting member, that the risk of harm is very low. While the Court may consider that the wisdom of expanding an industrial operation involving nuclear materials in the immediate vicinity of a primary school is dubious, that is not the question before it to determine.

[104] Applying the legal standard of reasonableness, including the deferential approach required by the governing authorities, this is not a case where the Court can find that it is truly necessary to intervene in order to safeguard the legality, rationality and fairness of the administrative process: *Vavilov* at para 13. The application for judicial review must therefore be dismissed.

[105] The parties have agreed to bear their own costs. Accordingly, none will be awarded.

JUDGMENT IN T-228-21

THIS COURT'S JUDGMENT is that the application is dismissed. The parties shall bear their own costs.

"Richard G. Mosley"
Judge

FEDERAL COURT

SOLICITORS OF RECORD

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