

Appeal No. PA14-330

Information and Privacy Commissioner of Ontario

IN THE MATTER OF Appeal No. PA14-330
under the
Freedom of Information and Protection of Privacy Act, RSO 1990, c F 31

APPELLANT'S SUR-REPLY SUBMISSION

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SUR-REPLY REPRESENTATIONS OF THE APPELLANT

OVERVIEW

1. There is a significant amount of source term information already in the public domain, but Ontario Power Generation (OPG) refuses to release its source terms from the Probabilistic Risk Assessments for the Darlington and Pickering Nuclear Generation Stations. There is no danger to the public or to OPG's facilities from releasing source term information, as evidenced by the Canadian Nuclear Safety Commission's ("CNSC") release of similar and overlapping source term information, but there is certainly a danger caused by shielding Ontario and OPG's emergency planning calculations from public scrutiny.

2. The Appellant strongly disputes that there is any meaningful distinction to be drawn between "hypothetical" and plant-specific source terms. Source terms are calculated by modelling hypothetical accidents. The source terms from several hypothetical accident scenarios are then grouped into categories called Ex-Plant Release Categories or Release Categories. Sources terms relating to specific plants, and other source terms, have all been released to the public.

PART I – STATEMENT OF FACTS

A. HISTORY OF THE APPEAL

3. Greenpeace Canada submitted the following *Freedom of Information and Protection of Privacy Act*, RSO 1990, c F 31 (“*FIPPA*”) request in 2014:

This is to make a formal request for the “source term” information for all Ex-Plant Release Categories included in the most recent probabilistic risk assessments for the Darlington as well as the Pickering A and B nuclear stations.¹

4. OPG denied the release of the records in 2014. OPG made submissions to the IPC in July 2015. The Appellant made submissions to the IPC on February 25, 2016 and supplementary submissions to the IPC on October 30, 2018.² OPG filed reply submissions in January 2019.³

5. The IPC has requested that the Appellant address two issues in sur-reply: (1) OPG’s claim that there is a distinction between the information now publicly available and the Source Term Information at issue, and (2) the relevance of IPC Order PO-3909 to this appeal.⁴

¹ Appeal PA 14-330 (Supplementary Submission of the Appellant, Tab 1: Affidavit of Shawn-Patrick Stensil dated October 23, 2018 at para 2 [“2018 Stensil Affidavit”]).

² 2018 Stensil Affidavit, *supra* note 1 at paras 3-5; Appeal PA 14-330 (Supplementary Representations of the Appellant dated October 30, 2018).

³ Appeal PA 14-330 (Reply Representations of OPG to Supplementary Submissions [“OPG Reply Representations”]).

⁴ Appeal PA 14-330 (Letter from IPC dated January 7, 2019).

PART II – POINT IN ISSUE

6. The appeal should be allowed and the source term information from OPG’s Probabilistic Risk Assessments for the Darlington, Pickering A and Pickering B sites should be disclosed.

PART III – SUBMISSIONS

A. THE APPELLANT’S RECORD MAY BE SHARED

7. The Appellant consents to the IPC sharing his sur-reply submissions with OPG.

B. SOURCE TERM INFORMATION SHOULD BE RELEASED

a) OPG is drawing a distinction without a difference between types of Source Term information

8. The Appellant strongly disputes that there is any validity to the distinction OPG raised for the first time in its reply representations between “hypothetical” source terms and plant-specific source terms.⁵ CNSC does not make this distinction. As Frank Greening outlined in his affidavit at paragraphs 21 and 22, the source term information in this appeal all relates to hypothetical accident sequences:

It is important to recognize that the source terms in this appeal are based on hypothetical accident scenarios.

The numerical results of source term calculations do not require disclosure of the details of the hypothetical accidents being assessed or disclosure of the computational procedures or assumptions used in the calculations.⁶

⁵ OPG Reply Representations, *supra* note 3 at 2-4.

⁶ Appeal PA 14-330 (Submissions of Appellant, Affidavit of Frank Greening sworn February 23, 2016 at paras 21-22 [“Greening Affidavit”]).

9. OPG is mischaracterizing the nature of source term information and has not explained how this information could be “co-related” with other publicly available information to become a threat to public safety. Source term information does not reveal the details of the hypothetical accidents being modelled, only the makeup of the ultimate radioactive release or “spill” from the plant’s containment. It does not matter how or why the hypothetical, modelled accident occurred.⁷ Frank Greening explained that an “accident that involves a pipe rupture would result in releases from radioactive material in the pipe. The identification of which pipe ruptured, where it is located, or how or why the pipe ruptured, does not have to be revealed. For the purposes of emergency planning, what matters is the duration and amount of radioactivity that is released” from containment.⁸

10. Figure 1-1 of the *Bruce A Level 2 At-Power Internal Events Risk Assessment* shows the different stages of an accident at a nuclear facility. The first phase of an accident is the fuel or core damage stage. If the accident is large enough, the next phase involves a release of radioactive contaminants from the plant’s containment. The source terms at issue here involve releases from containment. They do not reveal information about the initial fuel or core damage that is not already publicly available.⁹

⁷ *Ibid* at para 27.

⁸ *Ibid* at para 23.

⁹ Appeal PA 14-330 (Appellant Submissions, Tab 1A: *Bruce A Level 2 At-Power Internal Events Risk Assessment*, December 2013, at 26) [*“Bruce A level 2 Risk Assessment”*]

11. The hypothetical accidents which make up the source terms at issue do not involve malevolent acts. Probabilistic risk assessments involve “internal initiating events and internal hazards” and “external hazards, both natural and human-induced, but non-malevolent”.¹⁰ [emphasis added]

12. Furthermore, the source term information at issue in this appeal is associated with Release Categories and does not represent an individual hypothetical modelled accident sequence. Several hypothetical accident scenarios are grouped together into one Release Category for the purposes of emergency planning based on their likelihood of occurring.¹¹ The Release Categories are not specific to hypothetical accidents with the exact same releases. Instead, the magnitude of releases from accidents grouped together into one Release Category may vary by a factor of 10.¹² As explained in the Bruce A Level 2 At-Power Internal Events Risk Assessment:

RCs do not represent specific accident sequences or plant conditions but are defined only in terms of radioactivity release to the environment from the point of view of an observer at the site boundary. Each RC is defined as a range of release of a specific radionuclide and whether the release occurs predominately early (<24 hours) or late (>24 hours), as shown in Table 12-1.¹³ [emphasis added]

13. In any event, OPG’s claimed distinction between hypothetical and plant-specific source terms does not apply to the source term released by CNSC relating to its rating of an emergency response exercise at OPG’s Pickering Nuclear Generating

¹⁰ Appeal PA 14-330 (Submissions of Appellant, Tab 1L: Canadian Nuclear Safety Commission, *REGDOC-2.4.2, Probabilistic Safety Assessment (PSA) for Nuclear Power Plants*, May 2014, at 4.8).

¹¹ Appeal PA 14-330 (Submissions of Appellant, Affidavit of Shawn-Patrick Stensil sworn February 22, 2016 at para 13 [“2016 Stensil Affidavit”]).

¹² *Bruce A level 2 Risk Assessment*, *supra* note 9 at 79.

¹³ *Bruce A level 2 Risk Assessment*, *supra* note 9 at 317.

Station.¹⁴ Likewise, a lot of the source term information already available in the public domain and filed in this appeal is also “plant-specific”, or is similar or overlaps with the source term information at issue in this appeal:

- In October 2015, CNSC posted *Severe Accident Progression Without Operator Action* on its website. Table 2 includes source term information for Cesium-137 and Iodine-131 in Release Category 1 for the Darlington nuclear plant. The Level 2 Darlington PSA was used to prepare the report, although it predated the Fukushima accident.¹⁵
- In 2015, OPG disclosed source term information for Release Category 5 from OPG’s risk assessment for the Pickering B nuclear station pursuant to another *FIPPA* request.¹⁶
- CNSC released a Briefing Note which provides source term information for Release Category 1 at the Bruce B nuclear station. It compares the timing and scale of releases for Release Category 1 at the Bruce and Darlington nuclear stations.¹⁷
- CNSC disclosed the 2013 Bruce A Level 2 At-Power Internal Events Risk Assessment, which includes source term information for Cesium-137 and Iodine-131 for different Release Categories.¹⁸
- CNSC released its *Bruce A Probabilistic Risk Assessment (BAPRA) Detailed Review*, which includes source term fraction information for Ex-Plant Release Categories 1, 2, 4, 6, and 8, in response to a federal *Access to Information* request.¹⁹
- SENES Consultants Limited prepared a report for OPG relating to the refurbishment of the Pickering B nuclear generation station

¹⁴ Appeal PA 14-330 (Appellant Supplementary Submissions, Affidavit of Shawn-Patrick Stensil, dated October 23, 2018, Exhibit D: *Accident Rating for OPG Emergency Response Exercise*); OPG Reply Representations, *supra* note 3 at 4.

¹⁵ Appeal PA 14-330 (Appellant Submissions, Tab 1E: *Severe Accident Progression Without Operator Action*, Canadian Nuclear Safety Commission, October 2015, at 8-9).

¹⁶ Appeal PA 14-330 (Appellant Submissions, Tab 1C: *Pickering B EA – Supplementary Information on Source Term Dose Calculations for EPRC5A*, Ontario Power Generation, March 20, 2008).

¹⁷ Appeal PA 14-330 (Appellant Submissions, Tab 1F: Briefing Note to the President).

¹⁸ *Bruce A level 2 Risk Assessment*, *supra* note 9.

¹⁹ Appeal PA 14-330 (Appellant Submissions, Tab 1J: *Bruce A Probabilistic Risk Assessment (BAPRA) Detailed Review*).

dated December, 2007. The Report includes source term information in tables B.5.1-1, B.5.2-1 and B.5.3-1.²⁰

- OPG disclosed source term information for the Pickering B plant life extension project for Ex-Plant Release Category 9 dated December 14, 2006 pursuant to another *FIPPA* request.²¹

b) OPG's Shifting Position on the CNSC

14. It is irrelevant to the IPC's determination in this appeal whether CNSC released source terms without consulting with OPG or the released source terms were prepared for the CNSC as per a specific request. It is also irrelevant that OPG views CNSC's modelling and assumptions as "unrealistic or very unlikely".²² Now that CNSC does release source term information, OPG cannot back away from its position that CNSC's practice relating to source term information is "relevant and persuasive".²³

C. PO-3909 SHOULD NOT BE FOLLOWED

15. The Appellant in this appeal has challenged the decisions in *PO-2960-I* and *PO-3019-F*, in particular because they relied on an earlier CNSC practice not to release source term information which has since changed. *PO-3909* continues to rely on the decisions in *PO-2960-I* and *PO-3019-F* and the underlying factual circumstances in those cases.²⁴ However, unlike in *PO-3909*, where the IPC found that the Appellant did not clearly outline how circumstances had changed since the old

²⁰Appeal PA 14-330 (Appellant Submissions, Tab 1B: *Credible Malfunction and Accident Scenarios Technical Support Document*, Senes Consultants Limited, December 2007).

²¹ Appeal PA 14-330 (Appellant Submissions, Tab 1D: *Pickering B Plant Life Extension Project: Accident Air and Waterborne Releases for Pickering B Environmental Assessment*, Ontario Power Generation, December 18, 2006).

²² *Freedom of Information and Protection of Privacy Act, RSO 1990, c M.56*, ss 14(1)(i), 16; OPG's Reply Representations, *supra* note 3 at 3.

²³ Appeal PA 14-330 (OPG Representations, dated July 2015, at 8).

²⁴ *PO-3909*, December 7, 2018 at paras 30-31; *PO-2960-I*, March 31, 2011 at 13; *PO-3019-F*, December 7, 2011 at 8-9.

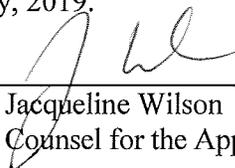
rulings, the Appellant has directly addressed that question here by filing evidence about changes to CNSC's practice regarding the release of source term information and has filed examples of similar or overlapping source term information that has already been released to the public by CNSC and others.²⁵ OPG's position has also changed since the rulings in *PO-2960-I*, *PO-3019-F* and *PO-3909*, and they now point to a new distinction between hypothetical and plant-specific source terms, whereas they previously argued that all source term information should be protected. We urge the IPC to make a new determination on whether source term information can be released based on the evidence filed in this case and the changed factual circumstances since the previous rulings.

PART IV – ORDER REQUESTED

16. The Appellant requests that the IPC order OPG to release the source term information from its probabilistic risk assessment for the Darlington, Pickering A and Pickering B sites.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

Dated at Toronto this 11th of February, 2019.



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²⁵ *PO-3909, ibid*, at paras 34, 36; 2016 Stensil Affidavit, *supra* note 11 at paras 23, 34, 35, 36, 39-45, 46-49); 2018 Stensil Affidavit, *supra* note 1 at paras 9-12, 15.