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April 4, 2014

File: 00216-00531 P
CD#: 00216-CORR-00531-00227
Project ID: 10-60004

Dr. Stella Swanson
Chair, Joint Review Panel
Deep Geologic Repository Project

c/o Canadian Nuclear Safety Commission
280 Slater Street
Ottawa, Ontario
K1P 5S9

Dear Dr. Swanson:

**Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12a-512**

The purpose of this letter is to provide OPG's response to Information Request (IR) EIS-12a-512 from IR Package #12a (Reference 1).

Attachment 1 provides the response to the Information Request.

Attachment 2 includes an updated Tracking Table showing how all submissions to date, including those for IR Packages #12 and #12a, link to various sections in the documents submitted on April 14, 2011 (References 2 and 3), as committed for submission by April 4, 2014 in Reference 4.

If you have questions on the above, please contact Allan Webster at (905) 623-6670, ext. 3326.

Sincerely,

Laurie Swami
Vice President, Nuclear Services
Ontario Power Generation

Attach.

cc. Dr. J. Archibald – Joint Review Panel c/o CNSC (Ottawa)
Dr. G. Muecke – Joint Review Panel c/o CNSC (Ottawa)
P. Elder – CNSC (Ottawa)
D. Wilson – NWMO (Toronto)

References:

1. JRP letter from Dr. Stella Swanson to Laurie Swami, "Information Request Package #12a from the Joint Review Panel", February 4, 2014, CD# 00216-CORR-00531-00222

2. OPG letter from Albert Sweetnam to JRP Chair, "Submission of Information in Support of OPG's Licence Application for a Deep Geologic Repository for Low and Intermediate Level Waste", April 14, 2011, CD# 00216-CORR-00531-00090

3. OPG letter from Albert Sweetnam to JRP Chair, "Submission of an Environmental Impact Statement for a Deep Geologic Repository for Low and Intermediate Level Waste", April 14, 2011, CD# 00216-CORR-00531-00091

4. OPG letter from Allan Webster to Dr. Stella Swanson, "Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12-512", January 22, 2014, CD# 00216-CORR-00531-00219

# ATTACHMENT 1

Attachment to OPG letter, Allan Webster to Dr. Stella Swanson, "Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12a-512"

April 4, 2014

CD#: 00216-CORR-00531-00227

## OPG Response to Information Request EIS-12a-512 from Joint Review Panel

# OPG Response to Information Request EIS-12a-512 from Joint Review Panel

| IR# | EIS Guidelines Section | Information Request and Response |
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| EIS 12a-512 | • Section 14, Cumulative Effects | ***Information Request:***<br>*a) Attachment A, Section 3 of the IR response relates only to waste conditions. Additional assessment of the impacts of extended operation of the repository on underground safety is required. OPG is to provide a discussion of excavation safety implications including the integrity of occupied excavations. For example, the expansion of the repository to accommodate decommissioning waste would extend the underground repository operational period which may impact the effectiveness of the planned support measures (such as rock bolts, shotcrete and other surface reinforcement tools) due to processes such as corrosion. Consideration of any changes to the frequency and extent of maintenance or replacement of support measures may also be required. Describe any underground safety-related strategies for possible future expansion that OPG has undertaken to incorporate during the initial development of the DGR. OPG referred to incorporating lessons learned from international waste repositories during the hearing (Transcript Volume 15: October 3, 2013, p. 177, l. 16), as well as in IR EIS-08-366 ("concurrent room excavation and waste emplacement, versus having these activities sequential is an important design and operational consideration").*<br>*b) Provide further clarification regarding Short-Term and Long-Term Safety Implications of expanding the DGR.*<br>*This information request arises from the need to determine whether factoring decommissioning waste into plans for the construction and the operation of the DGR would affect the current safety case (without decommissioning waste). Explain whether and how OPG would plan for and implement longer-term methods and measures to ensure underground safety, environmental protection, and safety of the public from the beginning of the project, illustrating a holistic understanding of the fundamental requirements for safety and environmental protection, should the project evolve.*<br>*Examples of issues to consider during holistic planning (in addition to the two issues explicitly addressed below) include:*<br>• *contingencies for unexpected variation in the lateral and vertical extent of the Cobourg Formation;*<br>• *sequencing and configuration of emplacement rooms in order to optimize efficiency, safety and environmental protection (i.e., planning backwards from the inclusion of all decommissioning waste and looking for areas of risk that would require a new or enhanced mitigation approach, as well as opportunities for efficiency, such as in the timing of placement of certain types of waste);*<br>• *the capacity that would ultimately be required for the stormwater management pond, and any associated impacts to wetlands; include consideration of handling and safe long-term disposal of solids from the bottom of the pond; and* |

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| | | • *air quality mitigation measures (contingencies that may be required for ventilation shaft emissions), given the nature of decommissioning wastes.*<br><br>*The response to IR EIS-12-512 states that for Disruptive Scenarios, the impact remains within the risk criterion of 10-5 per year. Clarify the relative degree to which the criterion would be met for each disruptive scenario. It is understood that the clarification would be based upon a preliminary, qualitative assessment; however, it should be possible to provide an order of magnitude estimate of how close the disruptive scenarios may be to the risk criterion. The focus should be on the relative incremental risk created by inclusion of decommissioning waste. Provide an evaluation of new sources of risk (either the hazards themselves or changes in the likelihood of those hazards) that may be introduced by the inclusion of decommissioning waste.*<br><br>*Provide further details regarding the implications of greater gas generation potential resulting from the increased volume of decommissioning waste. Provide information regarding the relative decrease in gas production potential that could be achieved through volume reduction, decontamination and recycling, and then use this information to estimate how much increased space would be required to accommodate predicted gas generation. It is understood that these additional details would be preliminary; however, it should be possible to provide the assumptions used to support the estimates of relative decrease of gas production potential as well as the estimates of additional space that may be necessary. Comment on how adding space to the repository would affect the overall design, integrity, and planned sequencing of the repository.*<br><br>c) *Provide a graphic representation of the relative timelines of all phases of the conceptual expanded DGR to illustrate how these phases may interact and/or overlap with the phases of the DGR as described in the EIS. This graphic could be a modification of Figure 4.2-1 of the EIS. For additional clarity, also provide a version of Figure 2 from the response to IR EIS-12-512 (expansion layout) that shows the sequencing of panel and closure wall construction, waste emplacement, and temporary and/or permanent closures.*<br><br>***Context:***<br><br>*The IR follow up responses are required to add to the information provided in Attachment A, Section 3 of the OPG response to IR EIS-12-512 under the subheadings "Implications of Expansion on DGR Safety – Operational Safety Implications" and "Implications of Expansion on DGR Safety – Long Term Safety Implication":* |
| | | **OPG Response:**<br><br>The responses are provided below.<br><br>**<u>(a) Safety Impacts of Extended Repository Operation</u>**<br><br>Ontario Power Generation (OPG) is seeking regulatory approval for a DGR site preparation and construction licence. |

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| | | The proposed DGR has a capacity of approximately 200,000 $m^3$ (packaged volume) for operational and refurbishment low & intermediate level waste (L&ILW). Once constructed, the repository is expected to receive these wastes over a nominal 40 year time period. However, the DGR facility design has taken into consideration the potential to operate beyond this timeframe by ensuring "difficult-to-replace" structures (e.g. shaft headframes, concrete shaft liners) have a nominal 100-year design life. All other structures, systems, equipment and components of the DGR will have shorter design lives (e.g. designed to National Building Code of Canada) but have considered the need for refurbishment and/or replacement.<br><br>The expansion of the repository to accommodate decommissioning waste would extend the repository operational period from that currently proposed. However, the expansion would not adversely impact the effectiveness of the planned underground excavations and support measures, for example, due to processes such as corrosion. Excavations have been designed for a nominal 100-year life as there is the need to consider potential extended monitoring requirements and facility decommissioning following the operational period.<br><br>Inherent in the design is the requirement for long-term stability of the repository. This is reflected through the selection of pillar widths between emplacement rooms and adjacent panels. Also, during the operating phase, the design allows for closure of waste filled rooms through the use of closure walls or plugs. Once closed in this manner, the panel or sections of emplacement rooms are isolated from possible expansion activities.<br><br>To ensure the integrity of occupied underground spaces through all phases of development and operation, the following ground support installation, inspection, testing and maintenance measures have been considered:<br><br>1. Double corrosion protection for rock bolts. Bolt heads would be protected by grease caps before they are covered with shotcrete to facilitate future inspection and testing of bolts.<br><br>2. Cable bolts installed with double corrosion system such as flow-filled epoxy-coated strands or equivalent to minimize the risk of corrosion. Cathode protection systems could also be installed on all cable bolts to provide redundant corrosion protection.<br><br>3. At time of installation, selected bolts will be proof-tested and performance-tested as per recognized standard or procedure (e.g. ASTM D4435-13, BS8081:1989 or equivalent) to confirm that the bolts have been installed in accordance with specifications. If there is evidence of improper bolt installation, the load capacity of the defective bolt will be degraded and additional bolts will be installed and tested.<br><br>4. During operations there will be on-going visual inspection of the ground support systems. After approximately 20 years of operation (or sooner if visual inspection indicates problem bolts), there will be non-destructive testing of selected rock bolts and cable bolts to confirm integrity of bolts. Systematic testing would be performed in accordance with a recognized standard or procedure.<br><br>5. Rock deformation/movement (e.g. by extensometers and other instruments) will be performed throughout the |

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| | | operations phase as per the Geoscientific Verification Plan (NWMO 2014) to detect excessive rock deformation and possible overloading of rock bolts or cable bolts. Additional rock support will be installed, as required, in the event that rock deformation exceeds a predefined allowable amount of deformation.<br>6. In underground areas still in service or occupied after a nominal 60 years, rock support systems would be replaced by installing new rock bolts/cable bolts as needed. The new bolts would be installed, inspected, tested and maintained in a similar manner as described above.<br><br>**(b) Short-Term and Long-Term Safety Implications of Expanded Repository**<br><br>The response is provided in three sub-sections: (b.1) holistic planning; (b.2) disruptive scenarios; and (b.3) gas generation.<br><br>**(b.1) Holistic Planning**<br><br>OPG has applied a holistic planning approach to the DGR project since the conceptual design phase. As detailed in the original EIS-12-512 response (OPG 2014), several key construction and operational aspects have been assessed for potential impacts of an expanded DGR, or the need to increase the proposed facility operational life for extended DGR monitoring and decommissioning.<br><br>The characteristics of decommissioning waste will be assessed in detail closer to the time of decommissioning, and in advance of a decision to seek an expansion licence. As discussed in Section (c) below, this will be decades in the future. However, decommissioning waste packages are currently expected to meet the current waste acceptance criteria for the DGR. As such, outside of increasing the operational timeframe, the DGR could operate in a very similar manner to that currently proposed. The potential impacts to both the construction and operational periods, as described in EIS-12-512 (OPG 2014), took this into account.<br><br>The following provides additional information specific to the items identified for consideration in the information request:<br><br>• *contingencies for unexpected variation in the lateral and vertical extent of the Cobourg Formation;*<br><br>The confidence in the Cobourg Formation for the proposed DGR has been presented based on a detailed site characterization program. This confidence will be further supported and verified through the development of the DGR. The proposed conceptual configuration of an expanded DGR shown in Figure 2 of EIS-12-512 (OPG 2014) considers features of the Cobourg Formation (e.g. dip, thickness, principle stress direction) as well as features of the proposed design (e.g. shaft locations and common services, ventilation, panel access) to minimize additional excavation and infrastructure. As indicated in Section (c) and the initial response to EIS-12-512 (OPG 2014), additional site characterization to the same level of detail as with the current application will be required to support the decision to proceed with the expansion of the DGR for decommissioning waste. To be specific, variations in the |

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| | | lateral and vertical extent of the Cobourg Formation would be identified and evaluated as part of the future decision to proceed.<br>• *sequencing and configuration of emplacement rooms in order to optimize efficiency, safety and environmental protection (i.e., planning backwards from the inclusion of all decommissioning waste and looking for areas of risk that would require a new or enhanced mitigation approach, as well as opportunities for efficiency, such as in the timing of placement of certain types of waste);*<br>Section (c) shows two sequencing illustrations based on the early and late decision options. The exact sequencing of emplacement rooms would be, in part, dependent on the timing of decommissioning. Based on the assumed characteristics of wastes arising from decommissioning, it is not expected that a significant postclosure safety advantage would result from mixing or segregating such wastes from wastes arising from operational and refurbishment activities. The general plan of emplacement aligns with when the wastes become available. Mixed placement of wastes arising from operations and decommissioning within panels would, in such circumstances, be operationally efficient, depending on when an expansion licence might be requested. Should waste from decommissioning be received before Panel 1 is completely filled, it would be practical to place waste in these areas first.<br>• *the capacity that would ultimately be required for the stormwater management pond, and any associated impacts to wetlands; include consideration of handling and safe long-term disposal of solids from the bottom of the pond; and*<br>As discussed in the response to EIS-12-512 (OPG 2014), the potential expansion is not expected to result in the need for additional holding capacity of the stormwater management pond. However, should this be required, there is sufficient space on the site, moving away from the north wetland, to increase the size of the pond. As for the on-going operational management of the pond (i.e. removal of fines from the pond), it is expected that these materials will be retained within the project site or the Bruce nuclear site. Prior to removal, the fines will be sampled, analysed, and should there be a need, appropriate off-site waste management plans developed.<br>• *air quality mitigation measures (contingencies that may be required for ventilation shaft emissions), given the nature of decommissioning wastes.*<br>As described in the response to EIS-12-512 (OPG 2014), the waste types arising from decommissioning are expected to be fundamentally the same as the waste arising from operations and refurbishment, but the amounts of the various wastes and the key radionuclides are expected to be different. However, all waste packages must meet the DGR waste acceptance criteria.<br>Where the wastes are different, such as the potential increased volume of metals, this does not impact the preclosure, or operational considerations of the DGR. Waste package off-gassing during operations is not expected to be materially different than that of operational and refurbishment waste. Air quality requirements and monitoring |

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are expected to remain the same as for the current proposed DGR, however further assessments will be performed prior to applying for an expansion licence. The current design of the ventilation systems uses the ALARA principles to keep the workers in the fresh air supply and minimizes exposure to workers through the ventilation return tunnels. Waste packages will be required to meet the waste acceptance criteria ensuring that packages are covered and there is no loose contamination.

**(b.2) Postclosure Disruptive Scenarios**

The response to IR EIS-12-512 (OPG 2014) provides preliminary, qualitative information on the implications of wastes arising from decommissioning on the Normal Evolution Scenario and on Disruptive Scenarios based on preliminary waste characteristics. This information is preliminary and would need to be further assessed with more detailed waste characterization data for waste arising from decommissioning in advance of a future expansion application. Further information on the Disruptive Scenarios is provided below.

Table 1 below summarizes the calculated maximum doses to an adult and the dominant radionuclides (i.e. those that contribute more than 95% of the maximum dose) for each of the Disruptive Scenarios assessed for the DGR containing operational and refurbishment wastes (Section 8.7 of OPG 2011a).

**Table 1. Calculated Maximum Doses to an Adult for Disruptive Scenarios for Operational and Refurbishment Wastes**

| Disruptive Scenario | Calculation Case | Maximum Calculated Dose (mSv/a) | Dominant Radionuclide |
|---|---|---|---|
| Human Intrusion | HI-BC | 1 | Nb-94 |
| | HI-GR2 | 30 | C-14 |
| Severe Shaft Seal Failure | SF-BC | 1 | C-14 |
| | SF-ED | 80 | C-14 |
| Poorly Sealed Borehole | BH-BC | $< 10^{-6}$ | Zr-93 |
| Vertical Fault | VF-BC | $< 10^{-6}$ | Zr-93 |
| | VF-AL | $< 10^{-6}$ | Zr-93 |

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| | | The waste types from decommissioning are similar to wastes arising from operations and refurbishment, but different in amounts and key radionuclides (see response to EIS-12-512, OPG 2014). The main differences in sources of risk are likely to be from the increased total DGR radionuclide inventory, the increased repository footprint, and the increased gas generation from metal.<br><br>As noted in the response to EIS-12-512 (OPG 2014), the inventories of Ni-59, Ni-63, Fe-55, Co-60, Cl-36 and Ca-41 are expected to be significantly higher in wastes from decommissioning than in operational and refurbishment wastes. However, as the above table shows, these radionuclides are not significant contributors to the dose impacts from the Disruptive Scenarios and so an increase in their inventory is not expected to increase maximum calculated doses.<br><br>It is anticipated that the inventory in wastes arising from decommissioning for other radionuclides will be broadly similar to that for operational and refurbishment wastes. Thus, assuming a factor of two increase in the total Zr-93 inventory including decommissioning wastes, the maximum calculated dose for the Poorly Sealed Borehole and Vertical Fault Scenarios can be expected to increase by a factor of two. It would still remain several orders of magnitude below the 1 mSv/a dose criterion for disruptive events for these scenarios.<br><br>Similarly, based on estimates that the wastes arising from decommissioning are expected to have approximately similar amounts of C-14 and Nb-94 to that in the current licence application for wastes arising from operations and refurbishment (see response to EIS-12-512, OPG 2014), it can be expected that the maximum calculated doses associated with the Human Intrusion and Severe Shaft Seal Failure Scenarios would increase by around a factor of two for an expanded DGR. Thus the 1 mSv/a dose criterion for disruptive events would be exceeded for both these scenarios. Therefore the acceptability of results from these two scenarios needs to take into account their probability and be compared with a reference health risk value of 1 $x10^{-5}$/a (Section 8.1.2 of OPG 2011a).<br><br>For the Human Intrusion Scenario, a probability of occurrence of $10^{-5}$/a was estimated for the DGR based on the arguments presented in Section 8.7.1.3 of OPG 2011. Increasing the DGR footprint by about a factor of 2 to accommodate L&ILW from decommissioning will also increase the probability of accidental intrusion by the same factor to around $2x10^{-5}$/a. Combined with the increased inventory, the expanded DGR would have around a factor of four increase in risk from Human Intrusion compared to that for the DGR without L&ILW from decommissioning. However, the estimated risks remain more than two orders of magnitude below the reference health risk value of $1x10^{-5}$/a (e.g. $2x10^{-5}$/a (probability) × 60 mSv (dose) × $5.7x10^{-5}$/mSv (dose health risk) = $7x10^{-8}$/a for the HI-GR2 case that assumes the intruding borehole penetrates through the repository and continues into the pressurized Cambrian Formation and is not appropriately sealed).<br><br>For the Severe Shaft Seal Failure Scenario, the risk would increase by about a factor of two due the increased C-14 inventory for the expanded DGR, assuming the design maintained the same gas pressure basis. However, the risk from this scenario would remain below the reference health risk value of $1x10^{-5}$/a as long as the likelihood of the scenario remained less than around 0.09 per year ($1x10^{-5}$/a (risk criterion) / [2 mSv (dose) × $5.7x10^{-5}$/mSv (dose health risk)]). |

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| | | The probability of the base case Severe Shaft Seal Failure Scenario (i.e., the 500 m composite shaft seal permeability increasing by a factor of 100 to 1000, combined with a house positioned directly above one of the DGR shafts, can sensibly be reasoned to be much lower than 0.09 per year. For the even more conservative, and less likely, extreme degradation calculation case which assumes the entire shaft seal degrades to a hydraulic conductivity of fine silt/sand, the associate scenario likelihood must be 0.001 or less per year for an expanded DGR ($1 \times 10^{-5}$/a (risk criterion) / [160 mSv (dose) × $5.7 \times 10^{-5}$/mSv (dose health risk)]).<br><br>**(b.3) Gas Generation Implications**<br><br>Preliminary projections for wastes arising from decommissioning indicate that these wastes will contain a larger proportion of metals than in the wastes from operations and refurbishment. This would result in more gas generated from anaerobic metal corrosion within the repository in the long-term.<br><br>The metal would be primarily LLW, and thus likely largely surface contaminated. In principle, the metal can be accommodated by either increasing the excavated volume of the repository, or alternatively by disposing the LLW metal in a surface disposal facility. However the preferred option would be to minimize the amount of metal through decontamination and recycling, and then placement of the remaining amount in an expanded DGR.<br><br>For example, based on preliminary estimates, separation of the clean carbon steel from steam generators could reduce the steam generator metal inventory by as much as 90%. Also, replacing all the metal containers with concrete containers would reduce the decommissioning metal inventory by about 10%. Emerging decommissioning techniques are showing good potential, with some suppliers suggesting 90% metal decontamination is achievable. Since an OPG decision to emplace decommissioning waste into the DGR would not be made until 20-40 years from now (see c) below), it is reasonable to assume that advancement in technology will contribute to a meaningful reduction in the large volume of the LLW metals currently anticipated to result from decommissioning activities. Therefore the design, integrity and sequencing based on a doubling of the repository capacity, as outlined in the EIS and in the response to EIS-12-512, remains a reasonable conceptual basis.<br><br>**<u>(c) Relative Timelines</u>**<br><br>For clarity of the relative range of timelines associated with potential DGR expansion, OPG is providing Figures 1 and 2 in a similar format to that of EIS Figure 4.2-1 (OPG 2011b). However, Figures 1 and 2 reflect the latest assumptions about key near-term milestones in the DGR project. These figures are intended to illustrate the large range in time in which OPG may make the business decision, if necessary, to expand the DGR to accommodate additional volumes of L&ILW.<br><br>Note that similar to the original Figure 4.2-1, the timescale across the top of each figure is truncated as necessary to best illustrate the relationship and sequence of the assumed activities with the early and late scenarios provided. |

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| | | Figure 1 illustrates an early scenario where an OPG decision to expand the DGR is made near the end of 2035. Assuming that it would take 4 years for the design/regulatory approvals process and 4 years for construction, the repository would be available to receive decommissioning L&ILW starting in 2044 which is the earliest start date for Pickering NGS decommissioning. In this scenario, decommissioning waste would not require sustained interim waste storage either at the reactor site or the Western Waste Management Facility.<br><br>Figure 2 illustrates a late scenario where an OPG decision to expand the DGR is made in the 2060's at the end of the proposed DGR operations period. Before any work would begin on the decommissioning and closure of the DGR, OPG would consider various options for long-term management of decommissioning L&ILW and then make a decision on whether to send decommissioning wastes to the DGR. In this scenario, prior to the expansion of the DGR, Pickering decommissioning L&ILW would be placed in interim storage or alternative means for disposal identified.<br><br>The two scenarios provided show that OPG has a broad range of time from the mid 2030's to the mid 2060's in which to make a business decision for the potential expansion to the DGR.<br><br>Figure 3 shows the layout of the repository after expansion, as previously presented.<br><br>Figures 4 and 5 provide illustrations for the sequencing for the above two expansion decision options. In all cases, the intent is to minimize the time that rooms remain open to avoid the need to replace ground support systems, and to isolate waste-filled emplacement rooms before expansion excavations begin. For illustrative purposes, construction periods are shown in green and operational periods shown in yellow.<br><br>Figure 4 shows the possible sequencing of activities for the early scenario. Panel 2 is filled with operational and refurbishment L&ILW from the WWMF and isolated with closure walls. This timing corresponds with the planned timing for a business decision to expand the DGR. Waste placement ceases and Panels 3 and 4 are constructed. Upon re-initiation of waste placement following regulatory approval, L&ILW operational, refurbishment and decommissioning waste could be placed concurrently and not segregated to specific areas of the DGR where the waste type and packaging permits. The initial rooms of Panel 1 could remain available for rail-based wastes and the remainder of the repository filled to minimize the time emplacement rooms remain open (i.e. starting in Panel 1). Waste filled panels would be closed or isolated with closure walls following completion of emplacement within the panel. These considerations are illustrated in Figure 4, however, the final arrangement of emplacement would need to be reviewed as part of the expansion decision process.<br><br>Figure 5 shows the sequencing for the late scenario. This option does not provide the opportunity for concurrent emplacement as the timing for the decision is not made until the proposed DGR is full of waste arising from operations and refurbishment. All waste filled panels would be isolated by closure walls prior to the initiation of construction. As with the proposed DGR, following construction, the waste arising from decommissioning would fill from the farthest rooms and work back towards the shafts, with closure walls following panel completion. |

| IR# | EIS Guidelines Section | Information Request and Response |
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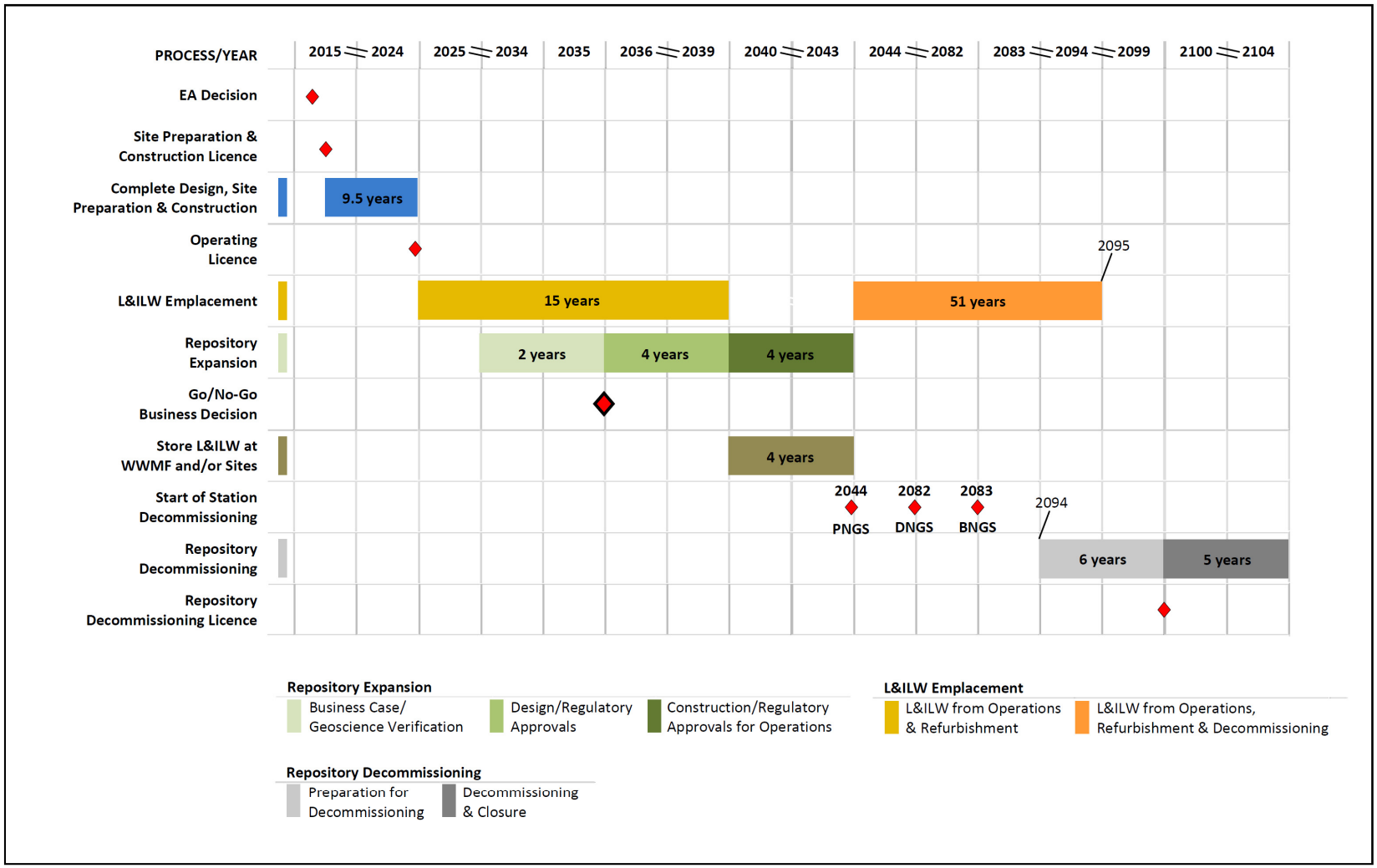
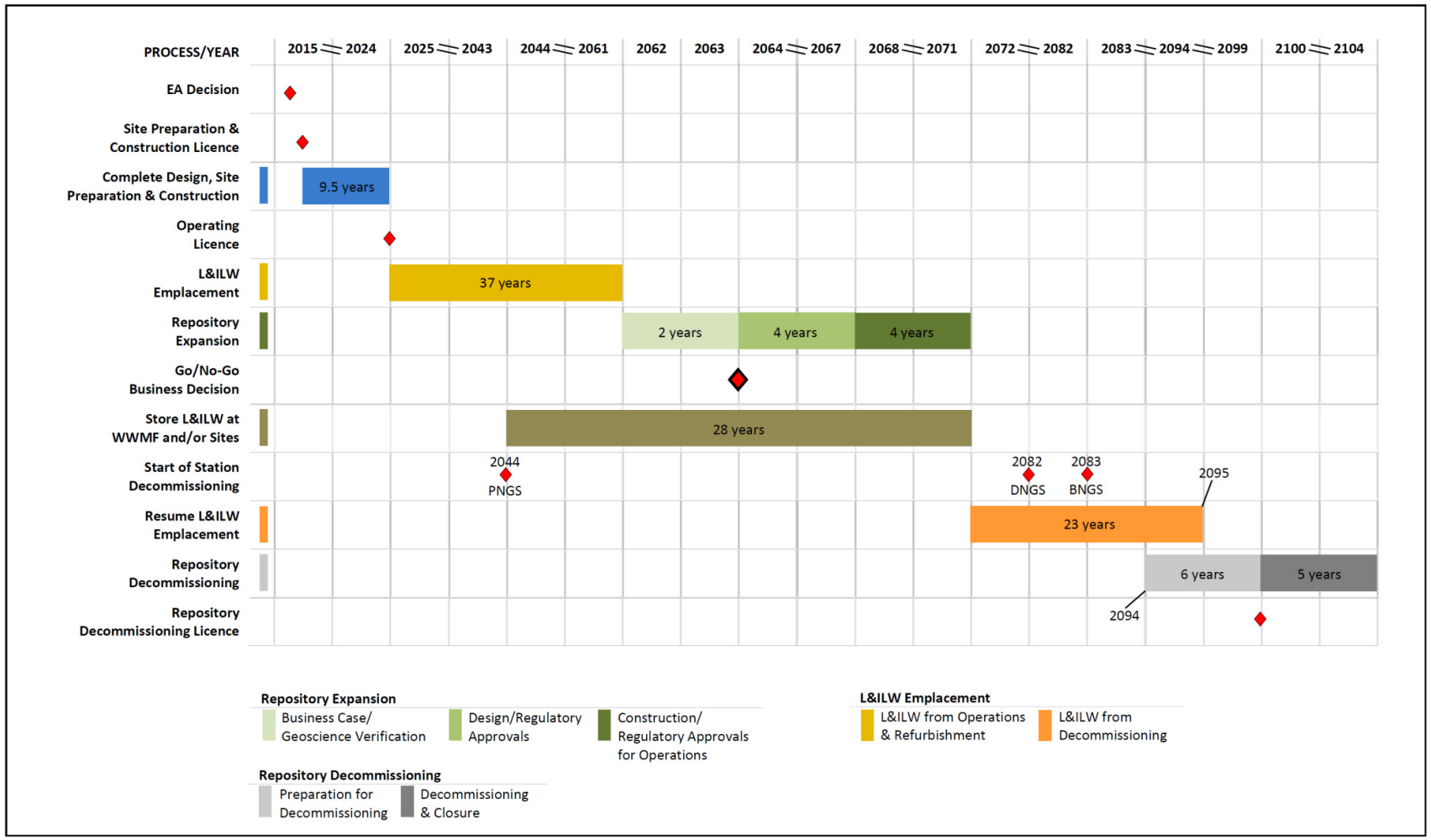
| | | **References:**<br>ASTM D4435-13. Standard Test Method for Rock Bolt Anchor Pull Test, ASTM International, United States.<br>BS 8081:1989. Code of Practice for Ground Anchorages, British Standards Institution, Great Britain.<br>NWMO. 2014. Geoscientific Verification Plan. Nuclear Waste Management Organization document NWMO DGR TR-2011-38 R001. Toronto, Canada. (CEAA Registry Doc# 1792)<br>OPG. 2011a. OPG’s Deep Geologic Repository for Low and Intermediate Level Waste – Preliminary Safety Report. Ontario Power Generation report 00216-SR-01320-00001 R000. Toronto, Canada. (CEAA Registry Doc# 300)<br>OPG. 2011b. OPG’s Deep Geologic Repository for Low and Intermediate Level Waste – Environmental Impact Statement. Ontario Power Generation report 00216-REP-07701-00001 R000. Toronto, Canada. (CEAA Registry Doc# 298)<br>OPG. 2014. Attachment A to OPG’s response to Information Request EIS-12-512 in OPG Letter, A. Webster to S. Swanson, “Deep Geologic Repository Project for Low and Intermediate Level Waste - Submission of Response to Information Request EIS-12-512”, CD# 00216-CORR-00531-00219, January 22, 2014. (CEAA Registry Doc# 1788) |




Note: All dates are nominal.

**Figure 1: Timeline for Project Implementation - Estimated Early Business Decision on Expansion Scenario**




Note: All dates are nominal.

**Figure 2: Timeline for Project Implementation - Estimated Late Business Decision on Expansion Scenario**

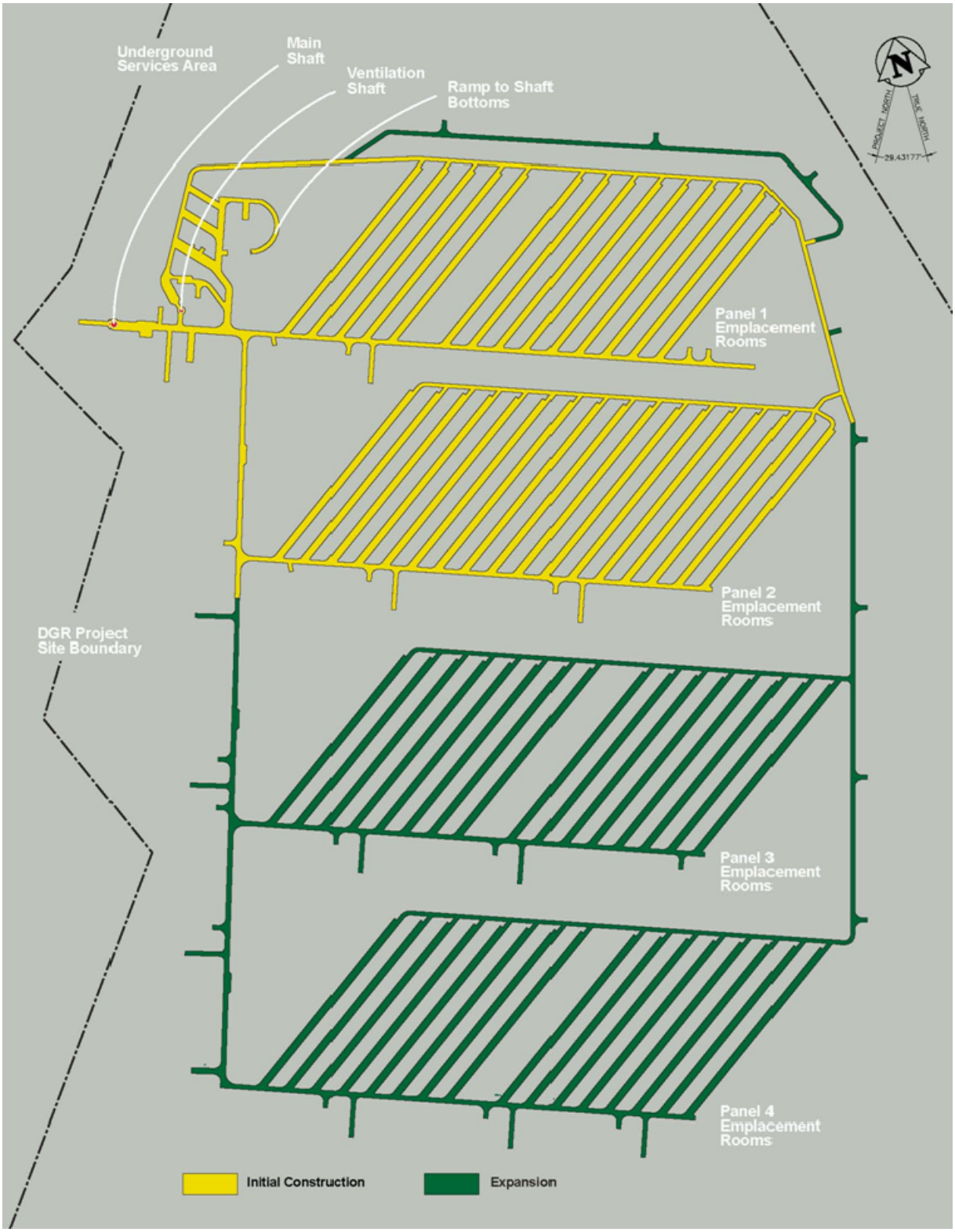



**Figure 3: OPG's Deep Geologic Repository for L&ILW – Conceptual Expansion Layout**

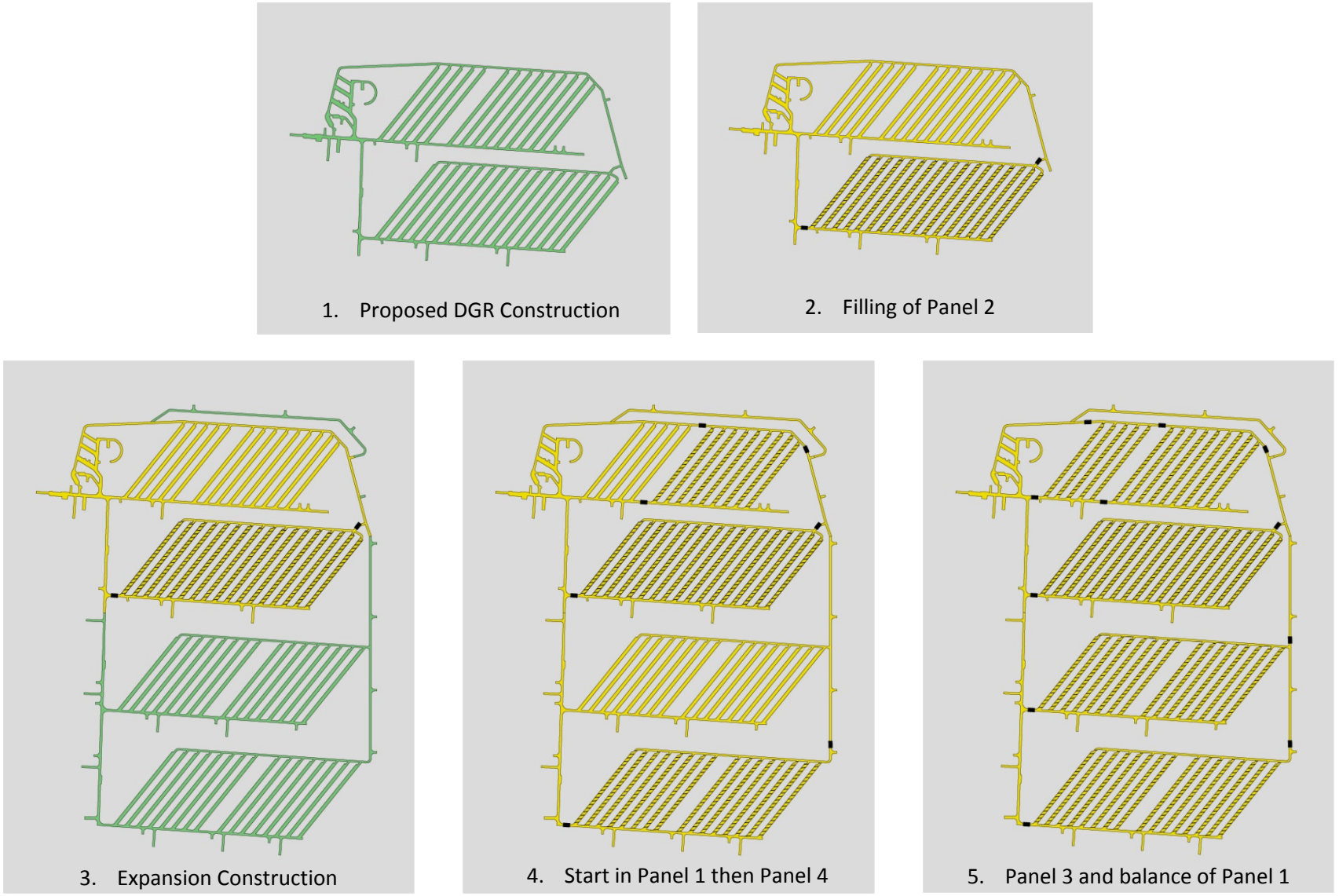



**Figure 4: Early Expansion Decision Emplacement Sequencing**

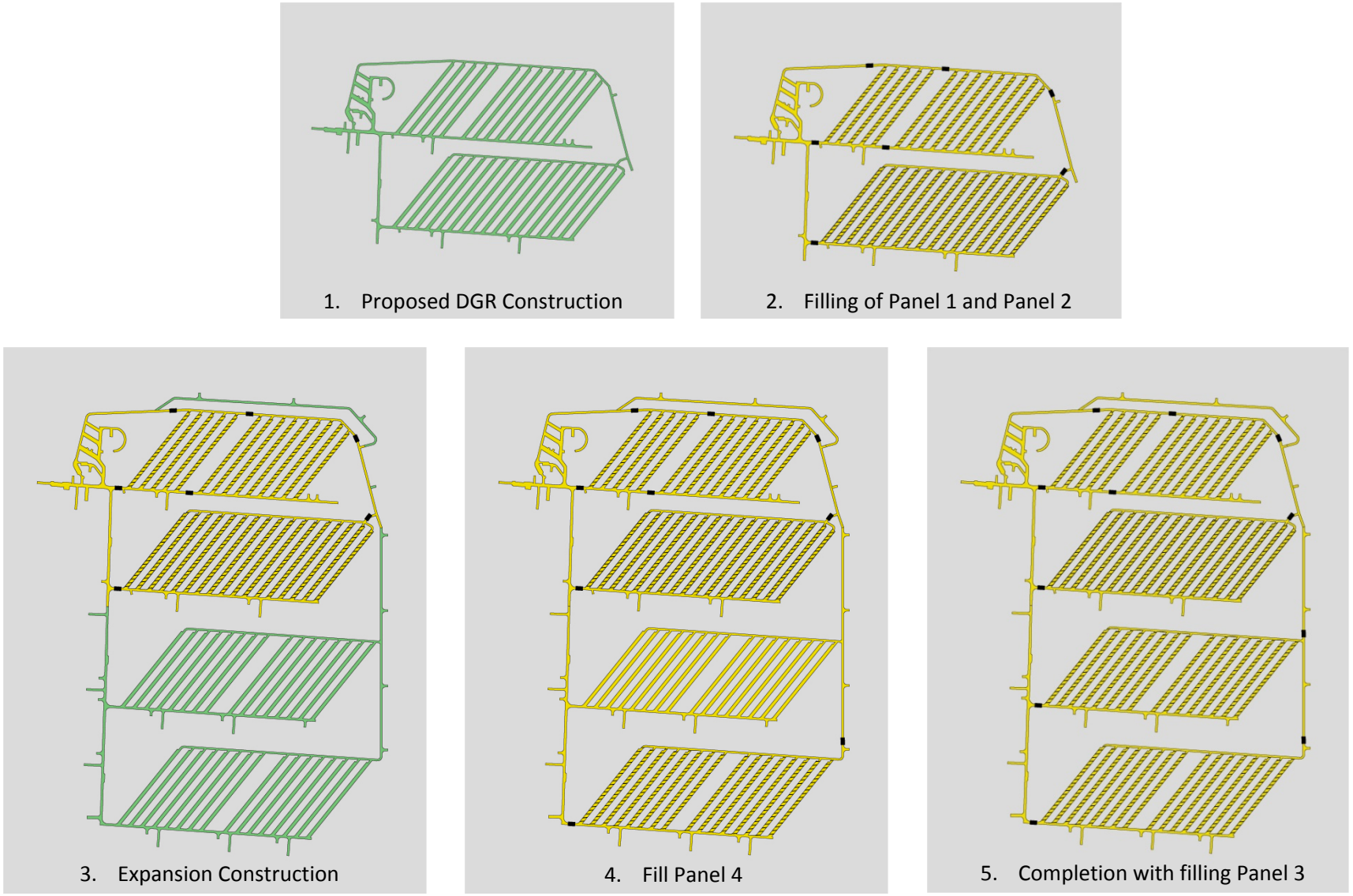



**Figure 5: Late Expansion Decision Emplacement Sequencing**

# ATTACHMENT 2

Attachment to OPG letter, Allan Webster to Dr. Stella Swanson, “Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12a-512”

April 4, 2014

CD#: 00216-CORR-00531-00227

## Updated Tracking Table

## OPG's L&ILW Deep Geologic Repository Project

# Tracking Tables for Information Request Responses, Design Updates and Corrections

# Rev.10

The attached tracking tables provide a cross-reference between information provided to the Joint Review Panel in Information Request (IR) responses, design updates and corrections in the following letters, and associated sections of documents supporting OPG's application for a site preparation and construction licence for its L&ILW DGR Project:

1. Letter from A. Sweetnam to S. Swanson, Updated Information in Support of OPG's Licence Application for a Deep Geologic Repository for Low and Intermediate Level Waste, CD# 00216-CORR-00531-00101, Feb.10, 2012
2. Letter from A. Sweetnam to S. Swanson, Corrections to the Information Submitted in Support of OPG's Licence Application for a Deep Geologic Repository for Low and Intermediate Level Waste, CD# 00216-CORR-00531-00100, Feb.10, 2012
3. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to Information Requests, CD# 00216-CORR-00531-00108, Mar.9, 2012
4. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to Information Request Package #2, CD# 00216-CORR-00531-00115, Jun.1, 2012
5. Letter from A. Sweetnam to S.Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to Information Request (IR) Package #3, CD# 00216-CORR-00531-00117, Jul.9, 2012
6. Letter from A. Sweetnam to S.Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Supplementary Material to Information Request (IR) Package #1 Responses, CD# 00216-CORR-00531-00118, Jul.10, 2012
7. Letter from A. Sweetnam to S.Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Response to Information Request (IR) No. EIS-02-36, CD# 00216-CORR-00531-00120, Jun. 28, 2012

8. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Previously Committed Responses to Information Requests, CD# 00216-CORR-00531-00126, Aug.9, 2012
9. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Responses to Undertakings from Technical Information Session #1, CD# 00216-CORR-00531-00132, Aug.15, 2012
10. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to a Sub-set of Package #4 Information Requests, CD# 00216-CORR-00531-00134, Aug.27, 2012
11. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Additional Responses to Undertakings from Technical Information Session #1, CD# 00216-CORR-00531-00136, Aug.31, 2012
12. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to a Sub-set of Package #4 Information Requests, CD# 00216-CORR-00531-00138, Sep.6, 2012
13. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the Final Sub-set of Package #4 Information Requests, CD# 00216-CORR-00531-00143, Sep.28, 2012
14. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to a Sub-set of Package #5 Information Requests, CD# 00216-CORR-00531-00145, Oct.24, 2012
15. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the Final Sub-set of Package #5 Information Requests, CD# 00216-CORR-00531-00146, Nov.7, 2012
16. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Acknowledgement of Package #6 Information Requests, CD# 00216-CORR-00531-00148, Oct.31, 2012
17. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to a Sub-set of Package #6 Information Requests, CD# 00216-CORR-00531-00152, Nov.29, 2012
18. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste - Submission of Responses to the Final Sub-set of Package #6 Information Requests, CD# 00216-CORR-00531-00153, Dec.12, 2012
19. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to Package # 7 Information Requests, CD# 00216-CORR-00531-00151, Dec.20, 2012
20. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Undertakings from Technical Information Session #2, CD# 00216-CORR-00531-00154, Dec.20, 2012
21. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the First Sub-set of Package #8 Information Requests, CD# 00216-CORR-00531-00160, Feb.14, 2013
22. Letter from A. Sweetnam to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the Second Sub-set of Package #8 Information Requests, CD# 00216-CORR-00531-00170, Feb.28, 2013

23. Letter from W. Robbins to S. Swanson, Deep Geologic Repository for Low and Intermediate Level Waste – Submission of Responses to the Final Sub-set of Package #8 Information Requests, CD# 00216-CORR-00531-00171, Mar.15, 2013
24. Letter from L. Swami to S. Swanson, Deep Geologic Repository for Low and Intermediate Level Waste – Submission of Responses to the First Sub-set of Package #9 Information Requests, CD# 00216-CORR-00531-00178, Mar.28, 2013
25. Letter from A. Webster to S. Swanson, Deep Geologic Repository for Low and Intermediate Level Waste – Submission of Responses to the Second Sub-set of Package #9 Information Requests, CD# 00216-CORR-00531-00180, Apr.15, 2013
26. Letter from A. Webster to S. Swanson, Deep Geologic Repository for Low and Intermediate Level Waste – Responses to Undertakings from Technical Information Session #3, CD# 00216-CORR-00531-00184, Apr.19, 2013
27. Letter from A. Webster to S. Swanson, Deep Geologic Repository for Low and Intermediate Level Waste – Submission of Responses to the Final Sub-set of Package #9 Information Requests, CD# 00216-CORR-00531-00179, Apr.30, 2013
28. Letter from L. Swami to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the First Sub-set of Package #10 Information Requests, CD# 00216-CORR-00531-00185, Apr.30, 2013
29. Letter from A. Webster to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the Final Sub-set of Package #10 Information Requests, CD# 00216-CORR-00531-00187, May 10, 2013
30. Letter from A. Webster to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Responses to the Package #11 Information Requests, CD# 00216-CORR-00531-00190, Jun.6, 2013
31. Letter from A. Webster to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12-512, CD# 00216-CORR-00531-00219, Jan.22, 2014
32. Letter from L. Swami to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12-511, CD# 00216-CORR-00531-00220, Jan.30, 2014
33. Letter from A. Webster to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12-510, CD# 00216-CORR-00531-00225, Mar.28, 2014
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35. Letter from A. Webster to S. Swanson, Deep Geologic Repository Project for Low and Intermediate Level Waste – Submission of Response to Information Request EIS-12a-512, CD# 00216-CORR-00531-00227, Apr.4, 2014

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## Preliminary Safety Report and Supporting Documents

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| ES.6 | Valued Ecosystem Components | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
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| Sec.1.2.1 | Purpose of the Project | Response to Information Requests | Provides clarification on use of DGR for low and intermediate level waste only | Response to IR-EIS-04-99 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification on the predicted margin of safety to be achieved by the DGR and margin of safety from the current operation of the WWMF | Response to IR-EIS-04-149 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
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| Sec. 4.4.3.5 | Fuel Storage | Correction | Corrects the volume of the emergency power diesel storage tank | Response to IR-EIS-07-279 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 4.4.3.6 | Potable, Industrial and Fire Water | Response to Information Requests | Provides additional information on traffic associated with provision of potable water | Response to IR-EIS-05-199 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |

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| Sec. 4.4.3.7 | Sewage System | Response to Information Requests | Provides additional information on traffic associated with provision of sanitary facilities | Response to IR-EIS-05-199 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 4.5 | Waste to be Placed in the DGR | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of categorization of wastes arriving at DGR | Response to IR-EIS-03-59 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on use of DGR for low and intermediate level waste only | Response to IR-EIS-04-99 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification on the definitions of low-level waste, intermediate-level waste, and high-level waste | Response to IR-EIS-11-504 in OPG Response to IR Package #11 Letter dated Jun.6, 2013 [30] | 1157 | |
| Table 4.5-1 | LLW Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 4.5-2 | ILW Categories, including Reactor Refurbishment Waste | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 4.5.1 | Waste Volumes | Response to Information Requests | Provides additional detail on waste containers/packages | Response to IR-EIS-09-474 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| Fig. 4.5.1-1 | Relative Waste Volumes Planned for Emplacement in the DGR (emplaced volume) | Response to Information Requests | Provides clarification on waste volumes | Response to IR-EIS-08-378 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Table 4.5.1-3 | Summary of Waste Acceptance Criteria | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides definition of "ignitable wastes" as used in the category of wastes excluded from DGR | Response to IR-EIS-03-58 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification regarding "leachate toxic" wastes | Response to IR-EIS-04-147 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-08-342 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-08-343 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-08-347 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-08-348 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-08-350 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |

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| | | | Provides clarification on waste package transfer stability and providing references to additional submission resources related to the request | Response to IR-EIS-08-344 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-10-488 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| | | | Provides clarification on waste package transfer stability | Response to IR-EIS-10-496 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 4.5.2 | Total Radionuclide Inventory of Waste | Response to Information Requests | Provides clarification on characterization of the inventory of radionuclides | Response to IR-EIS-01-05 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates information on characterization of uncertainty with radioactive measurements | Response to IR-EIS-01-06 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on calculating quantities of radionuclides | Response to IR-EIS-01-07 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on uncertainty associated with radionuclide inventory | Response to IR-EIS-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification for the basis of inventories for key radionuclides | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-06 and IR-EIS-01-20 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 4.5.2-1 | Estimated L&ILW Radionuclide Inventory at 2062 | Response to Information Requests | Provides clarification on the primary waste type source for each radionuclide | Response to IR-EIS-08-345 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| | | Correction | Corrects a typographic error in the listed Pu-241 inventory for Refurb L&ILW and for Total | Response to IR-EIS-08-345 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 4.7 | Site Preparation and Construction | Response to Information Requests | Provides additional information on noise impacts on sleep and World Health Organization sleep disturbance threshold | Response to IR-EIS-06-258 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 4.7.1 | Site Preparation | Response to Information Requests | Provides clarification on air modeling related to ground treatment equipment and the type of equipment that will be used for these activities | Response to IR-EIS-05-201 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides reference to supporting information provided in the submission on air modeling related to ground treatment equipment and the type of equipment that will be used for these activities | Response to IR-EIS-09-467 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.7.1.1 | Land Clearing, Grubbing and Site Grading | Response to Undertakings | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 4.7.1.3 | Site Drainage and Stormwater Management | Response to Undertakings | Provides additional information on site drainage and stormwater management | Response to Undertaking TIS 10 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 4.7.2.1 | Construction Labour | Response to Information Requests | Provides additional information on noise impacts on sleep and World Health Organization sleep disturbance threshold | Response to IR-EIS-06-258 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 4.7.4.1 | Shaft Excavation | Response to Information Requests | Provides additional information on development of the shaft collar | Response to IR-EIS-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on ground improvement approaches for shaft collar and shaft sinking activities | Response to IR-LPSC-01-31 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | Response to Undertakings | Provides additional information on the total weight of ammonia nitrate that would be used per sequenced shaft blast | Response to Undertaking TIS 3 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 4.7.4.2 | Repository Construction | Response to Undertakings | Provides additional information on the total weight of ammonia nitrate that would be used per sequenced shaft blast | Response to Undertaking TIS 3 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 4.7.5 | Construction Waste Management | Response to Information Requests | Provides clarification on the estimated range of annual output of grey water and the estimated waste rock volume | Response to IR-LPSC-01-29 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 4.7.5.2 | Hazardous Materials | Response to Information Requests | Provides additional information regarding storage of explosives | Response to IR-EIS-01-02 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on storage and transportation of explosives during the site preparation and construction | Response to IR-EIS-07-280 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| | | | Provides additional information regarding storage of explosives | Response to IR-EIS-09-403 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 4.7.5.3 | Waste Rock Management | Response to Information Requests | Provides additional information on options for waste rock management | Response to IR-EIS-02-34 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides clarification on the timeframe for temporary stockpile locations for overburden, shales and dolostones | Response to IR-EIS-05-191 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 4.7.5.4 | Water Management | Response to Information Requests | Provides clarification on the calculations, assumptions and confidence limits of the estimates for maximum excavation discharge and sump water pumping | Response to IR-EIS-04-101 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides additional information on predicted water inflows | Response to IR-EIS-04-151 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides additional information on predicted water inflows | Response to IR-EIS-08-392 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 4.8.2 | Above-ground Transfer of Waste and Receipt of Waste | Response to Information Requests | Provides additional information on the handling of waste packages | Response to IR-EIS-10-496 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.8.2.1 | Description of Waste Packages | Response to Information Requests | Provides additional details on inspection and testing of waste containers | Response to IR-EIS-11-508 in OPG Response to IR Package #11 Letter dated Jun.6, 2013 [30] | 1157 | |
| Sec. 4.8.3 | Underground Transfer of Waste | Response to Information Requests | Provides additional information on the handling of waste packages | Response to IR-EIS-10-496 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Fig. 4.8.3-1 | Typical Emplacement Room Configuration for LLW | Design update | Updates emplacement room dimensions | Item #2 (i.e., Fig. 6-17 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 4.8.3-2 | Typical Emplacement Room Configuration for ILW | Design update | Updates emplacement room dimensions | Item #2 (i.e., Fig. 6-18 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec 4.8.5.4 | Water Management | Response to Information Requests | Provides clarification on effect of stormwater management pond on groundwater quality, provision for prolonged retention and deployment of water treatment | Response to IR-EIS-03-56 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional clarification on provision for deployment of water treatment | Response to IR-EIS-09-472 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.8.7.10 | Emergency Preparedness and Emergency Response Program | Response to Information Requests | Provides clarification on mine rescue support during operation | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 4.10.1 | Design Changes | Response to Information Requests | Provides clarification of expansion potential | Response to IR-EIS-04-145 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification of expansion potential | Response to IR-EIS-10-494 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| | | | Provides additional information on DGR expansion plans | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |
| | | | | Response to IR-EIS-12a-512 in OPG Letter dated Apr.4, 2014 [35] | | √ |
| Sec. 4.10.2 | Additional Emplacement Rooms | Response to Information Requests | Provides clarification regarding DGR extension plans | Response to IR-EIS-04-120 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification of expansion potential | Response to IR-EIS-04-145 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification of expansion potential | Response to IR-EIS-10-494 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| | | | Provides additional information on DGR expansion plans | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |

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| | | | | Response to IR-EIS-12a-512 in OPG Letter dated Apr.4, 2014 [35] | | √ |
| Sec. 4.11.3 | Decommissioning of Facilities | Response to Undertakings | Provides clarification on the rationale for the planned top soil cover of 150 mm on the waste rock pile at closure | Response to Undertaking TIS 9 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Fig. 4.11.4-1 | Extent of the Proposed Concrete Monolith | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig.13-1 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4.11.4.2 | Construction of Shaft Seal | Response to Information Requests | Provides clarification of the basis for the asphalt seal | Response to IR-EIS-03-63 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on removal of shaft infrastructure | Response to IR-LPSC-03-58 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 4.11.5-1 | Waste Materials Arising from Decommissioning | Response to Information Requests | Provides clarification on waste materials to be removed as part of decommissioning<br>Provides further details on waste materials arising from decommissioning following construction | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Table 4.11.5-2 | Projected Range of Conventional and Hazardous Wastes Arising from Decommissioning | Response to Information Requests | Provides clarification on waste materials estimated to be generated during decommissioning on yearly basis | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| Sec. 4.12 | Abandonment and Long-Term Performance Phase | Response to Information Requests | Provides clarification on the alternative means "no institutional control necessary" | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on abandonment | Response to IR-EIS-05-181 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification on abandonment | Response to IR-EIS-08-364 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on institutional controls | Response to IR-EIS-08-363 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 4.13 | Malfunctions, Accidents And Malevolent Acts | Response to Information Requests | Provides an assessment of impact of potential events on the Bruce site that could affect the DGR | Response to IR-LPSC-01-41 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 4.13.3 | Malevolent Acts | Response to Information Requests | Provides clarification on threats and theft as potential malevolent acts | Response to IR-EIS-05-195 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 4.14.2 | Operations Phase | Response to Information Requests | Provides clarification on where Health, Safety and the Environment (HSE) as well as Communications fits within the organization chart | Response to IR-EIS-05-213 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 4.14.2-1 | Operations Phase Organization | Response to Information Requests | Provides a revised Organization Chart | Response to IR-EIS-09-456 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 4.15.1.1 | Control of Radiation Exposure and Contamination | Design update | Updates radiological zoning | Item #6 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |

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| Sec. 4.15.2 | Environmental Monitoring Programs | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides information on the existing near-surface groundwater monitoring activities and long-term monitoring strategy (including measurement parameters) | Response to IR-EIS-08-383 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 4.17 | Fire Protection And Emergency Response | Response to Information Requests | Provides clarification on emergency response and preparedness arrangements for construction phase | Response to IR-LPSC-01-45 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on mine rescue support during construction and operation phases | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 4.17.2.1 | Surface Facilities | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates edition of NFCC | Response to IR-LPSC-01-02 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 4.17.2.2 | Underground Facilities | Response to Information Requests | Provides clarification on fire suppression methods | Response to IR-LPSC-01-22 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| Sec. 5.1 | Spatial Boundaries and Scale | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 5.3 | Valued Ecosystem Components | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-48 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 5.3.1 | Overall Approach to Selecting VECs | Response to Information Requests | Provides additional information on how the local ecosystem is adequately represented by the selected VECs | Response to IR-EIS-08-359 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 5.3.1.1 | Consideration of Traditional and Local Knowledge | Response to Information Requests | Provides additional information on selection of Aboriginal Interests Valued Ecosystem Components (VECs) | Response to IR-EIS-03-47 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 5.3.1.2 | Consideration of Public Input | Response to Information Requests | Provides additional information on selection of Aboriginal Interests Valued Ecosystem Components (VECs) | Response to IR-EIS-03-47 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| Table 6.1.2-1 | Field Studies Undertaken in Support of the DGR Project | Response to Information Requests | Provides rationale for the field studies which were conducted in support of the DGR project for the terrestrial environment, hydrology and surface water quality, and aquatic environment | Response to IR-EIS-03-66 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2 | Geology | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides justification for the assessment that previously drilled (abandoned or active) boreholes identified within the Regional Study Area (RSA) will not enhance solute/contaminant transport away from the DGR | Response to IR-EIS-05-178 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on the sampling methods and field analyses performed to ensure that representative OGW samples were collected during drilling | Response to IR-EIS-08-317 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides a summary of the sulphur characterization for groundwaters and porewaters at the Bruce nuclear site, as well as the key justifications for the current assessment that sulphur waters present a low risk to the integrity of the repository and have been considered in both the design and management activities | Response to IR-EIS-08-316 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |

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| Sec. 6.2.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2.4 | Soil Quality | Response to Information Requests | Provides additional information on soil quality in the DGR Project Area | Response to IR-EIS-05-220 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.5 | Overburden Geology | Response to Information Requests | Provides clarification on overburden geology in the DGR Project Area | Response to IR-EIS-03-54 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2.5.1 | Site Study Area and Project Area | Response to Information Requests | Provides additional information on Phase I and Phase II site assessments | Response to IR-EIS-05-219 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.6.1 | Regional Stratigraphy | Response to Information Requests | Provides clarification on the 3DGF model | Response to IR-EIS-08-380 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 6.2.6.2 | Site Study Area | Response to Information Requests | Provides clarification on the source and breath of information in the Geosynthesis and Descriptive Site Geosphere Model with respect to confidence in the assessment of stratigraphic continuity within the upper Ordovician shale cap rocks | Response to IR-EIS-09-416 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 6.2.6.3 | Natural Resources | Response to Information Requests | Provides clarification on assessment of natural resources | Response to IR-EIS-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on the assessment of undiscovered oil, gas and mineral resources at the regional, local and site scale and also | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-24 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | the uncertainties associated with the assessment | | | |
| Fig. 6.2.6-5 | Location of Deep DGR-series and Shallow US-series Boreholes | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.2.7 | Hydrogeology | Response to Information Requests | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-04-126 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification as to why the hydraulic head in the Precambrian was not measured for the purposes of hydrogeological modeling | Response to IR-EIS-04-100 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification regarding: 1) the confidence in the longevity of the abnormal pressures observed at the site, and 2) conservatism applied in the hydrogeologic and safety assessment modelling scenarios with regard to abnormal pressure evolution | Response to IR-EIS-04-113 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides justification for the parameterization of the Salina A1 Unit, and the Guelph and Cambrian formation aquifers in the hydrogeological modeling | Response to IR-EIS-04-127 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| | | | Provides justification for the assessment that near-surface porosity/permeability enhancement processes will have no impact on the performance of the DGR at the site, in support of the physical and hydraulic properties employed in the hydrogeological modelling | Response to IR-EIS-05-180 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.7.3 | Deep Groundwater System | Response to Information Requests | Provides clarification regarding the use of liquid porosity in mass transport predictions | Response to IR-EIS-03-80 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2.7.4 | Environmental Heads and Hydraulic Conductivity | Response to Information Requests | Provides clarification for the choice of the hydraulic installations (WestBay MP system) during site characterization activities | Response to IR-EIS-04-157 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification on the conclusion that any future dissolution salt is expected to have no impact on the long-term integrity of the DGR | Response to IR-EIS-05-177 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.9 | Geomechanics | Response to Information Requests | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-372 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-373 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-374 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-375 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-376 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-377 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | Response to Undertakings | Provides additional information on geoscientific characterization | Response to Undertaking TIS 15 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 6.2.9.1 | Geomechanical Properties: Rock Strength and Deformation | Response to Information Requests | Provides clarification on Cobourg Formation core strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.2.10 | Regional Seismicity | Response to Information Requests | Provides clarification on seismic activity in Bruce region | Response to IR-EIS-03-75 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.3 | Hydrology and Surface Water Quality | Response to Information Requests | Provides justification for the assessment that near-surface porosity/permeability enhancement processes will have no impact on the performance of the DGR at the site, in support of the physical and hydraulic properties employed in the hydrogeological modeling | Response to IR-EIS-05-180 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.3.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.3.2 | Valued Ecosystem Components | Response to Undertakings | Provides supplementary information on selection of indicators for surface water quality | Response to Undertaking TIS 13 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 6.3.5 | Surface Water Quality | Response to Information Requests | Provides clarification on surface water quality | Response to IR-EIS-03-79 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.3.5.2 | Water Quality in Surface Drainage Features in Site Study Area | Response to Information Requests | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 6.3.5-1 | Summary of Lake Huron Water Quality Sampling Results | Response to Information Requests | Provides clarification on surface water quality in Lake Huron | Response to IR-EIS-03-79 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.3.5.3 | Sediment Quality | Response to Information Requests | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional baseline information on sediment quality in the Site and Local Study Areas | Response to IR-EIS-07-295 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 6.4.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.4.3.1 | Site Study Area and Project Area | Response to Information Requests | Provides additional information on condition and qualities of the wetlands | Response to IR-EIS-03-85 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.4.6.2 | Regional and Local Study Areas | Response to Information Requests | Provides additional information on why Type E botulism mortalities in waterfowl are not influenced by the operations at the Bruce nuclear site | Response to IR-EIS-05-193 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.5.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.5.3.1 | South Railway Ditch | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.5.3.2 | Stream C | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 6.5.3.3 | Lake Huron and the Embayments | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional information on the suitability of MacPherson Bay as habitat | Response to IR-EIS-05-197 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.5.3.4 | Other Potential Aquatic Habitat | Response to Information Requests | Provides additional information on the absence of benthic invertebrate data | Response to IR-EIS-05-198 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.6.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 6.6.2-1 | VECs Selected for Radiation and Radioactivity | Response to Information Requests | Provides additional information on sensitivity to radiation of indicator species | Response to IR-EIS-05-215 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.6.4 | Radioactive Releases to the Environment | Response to Information Requests | Provides clarification on fugitive emissions of H-3 species from LLSB at WWMF | Response to IR-EIS-01-08 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.6.4.1 | Releases to Air | Response to Information Requests | Provides clarification that no additional information on specific radionuclides in particulate and noble gases is available | Response to IR-EIS-06-238 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.6.5 | Radioactivity in the Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.6.5.2 | Tritium in Precipitation | Response to Information Requests | Provides more recent data on tritium concentrations in precipitation in the Local Study Area | Response to IR-EIS-07-289 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 6.6.5.3 | Radioactive Particulate | Response to Information Requests | Provides clarification on gross beta deposition | Response to IR-EIS-05-208 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on C-14 concentration in air | Response to IR-EIS-05-209 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.6.6 | Radioactivity in Surface Water | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.6.6.1 | Tritium and Gross Beta in Surface Water | Response to Information Requests | Provides additional information on drinking water monitoring program | Response to IR-EIS-03-78 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on tritium and gross beta in surface water; list of radionuclides sampled | Response to IR-EIS-05-210 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.6.7 | Radioactivity in the Aquatic Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.6.7.1 | Radioactivity in Sediments | Response to Information Requests | Provides additional information on the annual sediment sampling program | Response to IR-EIS-03-83 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for baseline for sediments | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-83 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| | | | Provides additional data on radionuclides in sediment in the Site Study Area | Response to IR-EIS-06-238 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 6.6.7.2 | Shoreline Gamma Survey | Response to Information Requests | Provides additional information on shoreline gamma survey | Response to IR-EIS-03-87 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.6.7.3 | Radioactivity in Fish | Response to Information Requests | Provides additional information on the annual fish sampling program | Response to IR-EIS-03-84 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for fish data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-84 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| Sec. 6.6.8 | Radioactivity in the Terrestrial Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.6.8.1 | Vegetation | Response to Information Requests | Provides additional information on the annual garden fruit and vegetable and agricultural plant sampling program | Response to IR-EIS-03-88 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for vegetation data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-88 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| Sec. 6.6.8.2 | Milk | Response to Information Requests | Provides additional information on the weekly milk sampling program | Response to IR-EIS-03-88 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for milk data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-88 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| Sec. 6.6.8.4 | Radioactivity in Soil | Response to Information Requests | Provides additional information on the annual soil sampling program | Response to IR-EIS-03-82 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for soil baseline data | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-82 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| Sec. 6.6.9 | Radioactivity in Groundwater | Response to Information Requests | Provides additional information on the groundwater sampling program | Response to IR-EIS-03-81 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides context for baseline data for groundwater | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-81 in OPG Letter dated Aug.9, 2012 [8] | 684 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on Well 231 | Response to IR-EIS-06-230 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| | | | Provides clarification on Well 231 | Response to IR-EIS-06-241 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 6.6.10 | Radiation Doses to Members of the Public | Response to Information Requests | Provides selected examples of worker dose estimates as supporting information | Response to IR-EIS-01-27 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides qualitative assessment of radiation dose to Aboriginal groups | Response to IR-EIS-05-216 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.6.11 | Radiation Doses to Workers | Response to Information Requests | Provides dose estimates for persons who will transfer waste packages from WWMF to DGR | Response to IR-EIS-01-28 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides selected examples of worker dose estimates as supporting information | Response to IR-EIS-01-27 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.6.12 | Radiation Dose to Non-NEWs | Response to Information Requests | Provides clarification on radiological safety of workers during construction phase | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-25 Letter dated Jul.10, 2012 [6] | 606 | |

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| Sec. 6.7.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.7.2 | Valued Ecosystem Components | Response to Information Requests | Provides clarification on the rationale for selection of indicators | Response to IR-EIS-08-322 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 6.7.3.1 | Data Sources | Response to Information Requests | Provides clarification on data used in atmospheric modelling | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 6.7.3.3 | Precipitation | Response to Information Requests | Provides additional information on precipitation data | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 6.7.5.1 | Existing Air Quality in the Regional Study Area | Response to Information Requests | Provides additional information on the impact of $NO_x$ emissions on ozone formation under regional conditions which lead to ozone exceedances | Response to IR-EIS-06-250 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 6.7.5.2 | Background Air Quality | Response to Information Requests | Provides clarification on why 1-hr CO levels are exceeded by 8-hr CO levels | Response to IR-EIS-06-251 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Table 6.7.5-6 | Background Air Quality | Response to Information Requests | Provides clarification on why 1-hr CO levels are exceeded by 8-hr CO levels | Response to IR-EIS-06-251 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 6.7.5.3 | Existing Air Quality in the Local Study Area | Response to Information Requests | Provides additional information on air quality measurements | Response to IR-EIS-03-91 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the rationale for selection of indicators | Response to IR-EIS-08-322 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |

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| Sec. 6.8.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 6.8.4-1 | Summary of Noise Levels at Off-Site Monitoring Locations | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Table 6.8.4-2 | Existing Noise Levels at Off-Site Noise Monitoring Locations | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 6.9.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.9.7.1 | Archaeological and Burial Sites | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 6.10.1 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.10.3.1 | Population and Demographics | Response to Information Requests | Provides additional information on population distribution within the Local Study Area | Response to IR-EIS-03-76 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.10.3.2 | Other Human Assets (Emergency Preparedness) | Response to Information Requests | Provides additional information on population distribution within the Local Study Area | Response to IR-EIS-03-76 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.10.5.1 | Housing | Response to Information Requests | Provides clarification on "private dwellings" | Response to IR-EIS-01-30 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| | | Response to Undertakings | Provides additional information on the proportion of seasonal to year-round residences | Response to Undertaking SeTIS 1 from Mar.20 Technical Information Session #3 in OPG Letter dated Apr.19, 2013 [26] | 968 | |
| Sec. 6.10.5.5 | Community Character | Response to Information Requests | Provides additional information on employment status of participants in the Public Attitude Research | Response to IR-EIS-05-218 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on visual assessment | Response to IR-EIS-05-226 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.10.6.1 | Inverhuron Provincial Park | Response to Information Requests | Provides additional information on the terms of the Inverhuron Park lease and describes additional land outside of the Bruce nuclear site owned by OPG | Response to IR-EIS-08-337 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Table 6.10.8-2 | Community Issues that Affect Feelings of Personal Health or Sense of Personal Safety | Response to Information Requests | Provides clarification on interpretation of reported data | Response to IR-EIS-03-71 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.10.8.3 | Public Attitudes toward the Bruce Nuclear Site and the WWMF | Response to Information Requests | Provides analysis of confidence levels and errors associated with public attitude research data | Response to IR-EIS-03-70 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.10.8.4 | Perspectives on Community Well-Being | Response to Information Requests | Provides additional information on the community well-being survey | Response to IR-EIS-03-70 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.11.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| Sec. 6.11.4.1 | Air Quality | Response to Information Requests | Provides additional information on receptor locations that best represent Métis communities | Response to IR-EIS-03-69 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.11.8.5 | Cancer Incidence | Response to Information Requests | Provides additional information on rationale for the interpretation of data on cancer incidence | Response to IR-EIS-03-89 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 6.12-1 | Summary of Existing Environment | Response to Information Requests | Provides clarification on acrolein used as an input for human health | Response to IR-EIS-01-09 in OPR Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 7.1 | Assessment Methods | Response to Information Requests | Provides clarification on potential effects of the Waste Rock Management Area (WRMA) and stormwater management system on the groundwater table or near surface groundwater flow regime | Response to IR-EIS-03-57 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on assessment of residual adverse effects | Response to IR-EIS-03-93 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on potential effects of the Waste Rock Management Area on the local groundwater system | Response to IR-EIS-03-95 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on the method used in assessing significance of effects | Response to IR-EIS-08-362 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| | | | Provides additional information on the method used in determining level of irreversability | Response to IR-EIS-08-362 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |

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| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Table 7.1-1 | Effects Criteria and Levels for Determining Significance | Response to Information Requests | Provides clarification on measures used to assess significance of residual adverse effects | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 7.2 | Geology | Response to Information Requests | Provides justification for the assessment that near-surface porosity/permeability enhancement processes will have no impact on the performance of the DGR at the site, in support of the physical and hydraulic properties employed in the hydrogeological modeling | Response to IR-EIS-05-180 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides justification for the assessment that previously drilled (abandoned or active) boreholes identified within the RSA will not enhance solute/contaminant transport away from the DGR | Response to IR-EIS-05-178 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 7.2.1 | Screening to Focus the Assessment | Response to Information Requests | Provides additional information on characteristics of waste rock pile runoff and potential effects | Response to IR-EIS-03-96 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on potential effects of the Waste Rock Management Area (WRMA) and stormwater management system on the groundwater table or near surface groundwater flow regime | Complete response to IR-EIS-03-57 in OPG Letter dated Aug.9, 2012 [8] | 682 | |

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| Sec. 7.2.1.3 | Overburden Groundwater, Shallow Bedrock Groundwater, Intermediate Bedrock Water and Deep Bedrock Water Quality | Response to Information Requests | Provides clarification on stormwater management of the DGR site | Response to IR-EIS-08-352 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 7.2.3 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.3 | Hydrology and Surface Water Quality | Response to Information Requests | Provides justification for the assessment that previously drilled (abandoned or active) boreholes identified within the RSA will not enhance solute/contaminant transport away from the DGR | Response to IR-EIS-05-178 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 7.3.1.1 | Surface Water Quantity and Flow | Response to Information Requests | Provides additional information effects on changes in water flow and quality | Response to IR-EIS-05-190 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on effects on changes in water flow and quality | Response to IR-EIS-09-471 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 7.3.1.2 | Surface Water Quality | Response to Information Requests | Provides additional information on characteristics of waste rock pile runoff and potential effects | Response to IR-EIS-03-96 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of the use of natural variability in assessing effects | Response to IR-EIS-05-188 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |

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| | | | Provides information on proposed mitigation monitoring of runoff from the waste rock pile | Response to IR-EIS-10-489 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 7.3.2.2 | Surface Water Quality | Response to Information Requests | Provides additional information on predicted effects and mitigation | Response to IR-EIS-04-130 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides additional information on surface water quality | Response to IR-EIS-05-185 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides additional information on the evaluation of nitrate concentrations | Response to IR-EIS-05-189 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides additional information on predicted effects and mitigation | Response to IR-EIS-08-391 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Table 7.3.2-2 | Estimated Effects on Suspended Solids and Nitrate Concentration in Surface Water Due to Atmospheric Deposition during Construction | Response to Information Requests | Provides clarification on the calculations of the estimated effects on suspended solids and nitrate concentration in surface water due to atmospheric deposition during construction | Response to IR-EIS-04-146 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 7.3.3 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.4.2.1 | Plant Species; Mitigation Measures | Response to Information Requests | Provides additional information on mitigation measures | Response to IR-EIS-08-353 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Table 7.4.2-1 | Maximum Predicted Concentration at Ecological Receptors During the Site Preparation and Construction Phase | Response to Information Requests | Provides clarification on predicted air concentrations at selected ecological receptor locations | Response to IR-EIS-01-13 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 7.4.2.2 | Wildlife Species | Response to Information Requests | Provides additional information on mitigation measures to prevent amphibians and reptiles from accessing the DGR site | Response to IR-EIS-10-490 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 7.4.3 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.5.1.4 | VECs in Other Aquatic Habitats | Response to Information Requests | Provides additional information related to potential effects of Waste Rock Management Area (WRMA) construction and operation | Response to IR-EIS-03-55 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| Sec. 7.5.3 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.6.2 | Identification and Assessment of Effects | Response to Information Requests | Provides clarification of the effective dose to nuclear energy workers | Response to IR-EIS-06-231 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| | | | Provides supplementary information on the stormwater management pond tritium level during the site preparation and construction and operation phases | Response to IR-EIS-10-483 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Sec. 7.6.2.1 | Humans | Response to Information Requests | Provides additional information on radiological changes in groundwater quality | Response to IR-EIS-06-239 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 7.6.3 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.7.2 | Identification and Assessment of Effects | Response to Information Requests | Provides clarification on the sources included in the air modelling | Response to IR-EIS-08-324 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification of the approach used in assessing effects | Response to IR-EIS-08-323 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |

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| Sec. 7.7.2.2 | In-design Mitigation | Response to Information Requests | Provides additional information on dust emissions management | Response to IR-EIS-04-137 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 7.7.2.3 | Likely Effects | Response to Information Requests | Provides additional information provided on emissions of compounds not selected as indicators for air quality | Response to IR-EIS-04-138 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides an explanation regarding the approach taken to identifying adverse effects | Response to IR-EIS-08-327 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Table 7.7.2-1 | Air Quality In-design Mitigation | Response to Information Requests | Provides additional information on dust emissions management | Response to IR-EIS-04-137 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification regarding $NO_x$ emissions and Tier 3 emission standards associated with diesel engines | Response to IR-EIS-06-252 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| | | | Provides clarification of mitigation measures | Response to IR-EIS-08-328 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Table 7.7.2-2 | Daily Site Preparation and Construction Phase Emissions | Response to Information Requests | Provides clarification on the emissions of $NO_X$, $SO_2$, and CO for the bounding case | Response to IR-EIS-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Table 7.7.2-3 | Site Preparation and Construction Phase Adverse Effects to Air Quality in the Local Study Area | Response to Information Requests | Provides clarification on rationale used for determining the scenario for the bounding case for emission estimates (air quality) | Response to IR-EIS-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| Sec. 7.7.2.4 | Additional Mitigation Measures | Response to Information Requests | Provides additional information on dust emissions management | Response to IR-EIS-04-137 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 7.7.3 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Fig. 7.7.3-1 | Determination of Significance of Residual Adverse Effects for Air Quality | Response to Information Requests | Provides clarification on significant of residual adverse effects "decision tree" and effects of air quality on health | Response to IR-EIS-06-253 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 7.8.2.3 | Likely Effects on Noise Levels | Response to Information Requests | Provides additional information on uncertainties associated with CadnaA noise model and assumptions addressing the uncertainties | Response to IR-EIS-03-97 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | Response to Undertakings | Provides visual representation of noise modeling results | Response to Undertaking MTIS 3 from Oct.11 Technical Information Session #2 in OPG Letter dated Dec. 20, 2012 [20] | 842 | |
| Sec. 7.8.2.5 | Additional Mitigation Measures | Response to Information Requests | Provides clarification on plans for mitigation of intermittent noise to be generated during site preparation and construction | Response to IR-EIS-09-454 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |

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| Sec. 7.8.3 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Table 7.8.3-1 | Effects Levels for Assigning Magnitude for Noise Levels | Response to Information Requests | Provides clarification on two definitions of low magnitude noise levels | Response to IR-EIS-05-225 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 7.9.2.2 | Aboriginal Heritage Resources | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 7.9.3 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 7.10.2.2 | Other Human Assets | Response to Information Requests | Provides clarification on mine rescue support during construction and operation phases | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 7.10.2.3 | Employment (Likely Effects) | Response to Information Requests | Provides additional information explaining why boom and bust effects were not considered in the cumulative effects assessment | Response to IR-EIS-08-369 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 7.10.2.13 | Other Social Assets | Response to Information Requests | Provides additional rationale with respect to the effects on community assets | Response to IR-EIS-08-368 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |

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| Sec. 7.11 | Human Health | Response to Information Requests | Provides clarification on acrolein from an air quality perspective | Response to IR-EIS-01-09 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-09 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Response to IR-EIS-05-223 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 7.12.1 | Lake Huron | Response to Information Requests | Provides additional information on potential effects on Lake Huron | Response to IR-EIS-08-379 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 7.12.3 | South Railway Ditch | Response to Information Requests | Provides additional information on habitat for western chorus frog under existing conditions within the Project Area | Response to IR-EIS-05-170 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec 7.12.4 | Wetland within the Project Area | Response to Information Requests | Provides additional information on snapping turtle under existing conditions within the Project Area | Response to IR-EIS-05-168 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on habitat for western chorus frog under existing conditions within the Project Area | Response to IR-EIS-05-170 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 7.14.1 | Description of Predicted Changes in Climate | Response to Information Requests | Provides additional information on historic temperature and precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 7.14.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| Table 7.14.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 7.14.3.2 | Geology | Response to Information Requests | Provides additional geomechanical analyses to illustrate the influence of overburden removal during glacial events on barrier integrity of the Ordovician shale cap rocks | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 7.15 | Application of a Precautionary Approach | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on how the precautionary approach provides a high level of confidence that the effects of the DGR Project will be less than the predicted effects | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification regarding the precautionary approach for air quality effects assessment and non-regulatory vs. regulatory frameworks | Response to IR-EIS-06-249 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 7.16 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.1 | Initiating Events | Response to Information Requests | Provides additional information on initiating event frequencies | Response to IR-EIS-01-03 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification of the likelihood of rock fall / rock burst | Response to IR-EIS-07-304 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |

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| Table 8.1-1 | Summary of Initiating Events Considered | Response to Information Requests | Provides clarification of hurricane frequency | Response to IR-EIS-05-222 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 8.2.1.3 | Potential Effects | Response to Information Requests | Provides clarification of the basis for the one hour public exposure duration, and of the mitigation measures.<br>Provides also clarification that evacuation and long-term relocation do not need to be considered. | Response to IR-EIS-09-430 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 8.2.2.3 | Potential Effects | Response to Information Requests | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 | |
| Sec. 8.2.3 | Mitigation, Contingency Plans and Emergency Procedures | Response to Information Requests | Provides clarification on process by which analysis of initiating events is incorporated into design, training, and procedural development | Response to IR-LPSC-01-42 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on relevant radiological response programs/procedures and emergency response procedures | Response to IR-EIS-01-04 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 8.3.3.1 | Fire Protection and Emergency Response | Response to Information Requests | Provides clarification on mine rescue support during operation | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |

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| Sec. 8.4 | Malevolent Acts | Response to Information Requests | Provides a discussion of risk and consequences from aerial assault | Response to IR-EIS-08-355 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 9.2.2.4 | Vertical Fault | Response to Information Requests | Provides clarification of basis for assumed faults | Response to IR-EIS-02-36 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 | |
| Sec. 9.4.2 | Disruptive Scenarios Results | Response to Information Requests | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 | |
| Sec. 9.4.5 | Traditional Use of Land and Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 10 | Cumulative Effects | Response to Information Requests | Provides clarification on assessment of cumulative effects with respect to DGR workers | Response to IR-EIS-01-25 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 10.2 | Cumulative Effects Assessment Method | Response to Information Requests | Provides information on how synergistic effects were considered in the effects assessment | Response to IR-EIS-08-358 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| | | | Provides additional information on the method used for assessing cumulative effects | Response to IR-EIS-08-361 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Table 10.4-1 | Past and Existing Project Descriptions | Response to Information Requests | Provides confirmation that the incinerator is included in the cumulative effects assessment | Response to IR-EIS-08-338 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |

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| Table 10.4-2 | Certain/Planned Project Descriptions | Response to Information Requests | Provides clarification on scope of WWMF upgrades | Response to IR-EIS-04-103 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Table 10.4-3 | Reasonably Foreseeable Project Descriptions | Response to Information Requests | Provides clarification on cumulative effects assessment | Response to IR-EIS-04-110 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides additional information on DGR expansion plans | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |
| | | | | Response to IR-EIS-12a-512 in OPG Letter dated Apr.4, 2014 [35] | | √ |
| Sec. 10.6.4 | Air Quality | Response to Information Requests | Provides results of an initial assessment of the potential impact of DGR expansion on environment | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |
| Sec. 10.6.5 | Noise Levels | Response to Information Requests | Provides results of an initial assessment of the potential impact of DGR expansion on environment | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |
| Sec. 10.6.6 | Radiation and Radioactivity | Response to Information Requests | Provides additional information on cumulative radiological effects | Response to IR-EIS-06-232 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| | | | Provides additional information on cumulative doses estimates for members of the public | Response to IR-EIS-06-233 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| | | | Provides results of an initial assessment of the potential impact of DGR expansion on radiation exposure | Response to IR-EIS-12-512 in OPG Letter dated Jan.22, 2014 [31] | 1788 | √ |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 11.1 | Surface Water Resources | Response to Information Requests | Provides clarification regarding the application of sustainability | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 11.2 | Geology and Groundwater Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 11.3 | Aquatic Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec.12 | Follow-up Program | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on follow-up monitoring during decommissioning and abandonment | Response to IR-EIS-06-235 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| | | | Provides additional information on the linkages between follow-up monitoring activities | Response to IR-EIS-08-359 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| | | | Provides additional information on contingency planning in the context of risk avoidance | Response to IR-EIS-09-411 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Table 12.2-1 | Recommended Follow-up Monitoring | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on monitoring of tritium during construction | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-01 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides new information on waste rock monitoring | Response to IR-EIS-04-160 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides the rationale for location of monitoring station | Response to IR-EIS-05-174 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional rationale with respect to the effects on community assets | Response to IR-EIS-08-368 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Table 13.1-1 | Recommended Follow-up Monitoring for the Atmospheric Environment | Response to Information Requests | Provides clarification on the substances excluded from the proposed monitoring program | Response to IR-EIS-05-175 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 14 | References – Sec.4 | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates revision number of Geoscientific Verification Plan | Response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32] | 1792 | √ |
| Appendix C, Sec. C1.1 | Temporal and Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Appendix C, Sec. C2.3.1 | Air Quality | Response to Information Requests | Provides clarification on acrolein used as an input for human health | Response to IR-EIS-01-09 in OPR Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| | | | Provides additional information on receptor locations that best represent Métis communities | Response to IR-EIS-03-69 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-09 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Response to IR-EIS-05-223 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Appendix C, Sec. C.2.3.3.1 | Members of the Public | Response to Information Requests | Provides dose estimates to aboriginal communities and seasonal users | Response to IR-EIS-06-234 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Appendix C, Sec. C2.7.5 | Cancer Incidence | Response to Information Requests | Provides additional information on rationale for the interpretation of data on cancer incidence | Response to IR-EIS-03-89 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Appendix C – Attachment 1 | Human Health Risk Assessment | Response to Information Requests | Provides clarification on assessment of the inhalation risk of acrolein to persons on-site | Response to IR-EIS-01-29 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 3.1-1 | Schematic of the DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 4-1 | VECs Selected for Aquatic Environment | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 5.1.2 | Field Studies | Response to Information Requests | Provides rationale for the field studies which were conducted in support of the DGR project for the aquatic environment | Response to IR-EIS-03-66 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on bass net sampling | Response to IR-EIS-07-291 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| | | | Provides clarification on the field study methods | Response to IR-EIS-07-291 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 5.3 | Aquatic Habitat and Biota | Response to Information Requests | Provides clarification on aquatic species of natural conservation status within the Project Area | Response to IR-EIS-01-15 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on aquatic species of natural conservation status within the Project Area | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-15 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides clarification on benthic invertebrate surveys | Response to IR-EIS-07-291 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 5.3.1 | South Railway Ditch | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 5.3.2 | Stream C | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 5.3.2.4 | Fish Community | Response to Information Requests | Provides clarification on fish and fish community data | Response to IR-EIS-01-14 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 5.3.3 | Lake Huron and the Embayments | Response to Information Requests | Provides additional information on fish studies and aquatic habitat | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional information on periphyton and phytoplankton in MacPherson Bay | Response to IR-EIS-05-196 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on the suitability of MacPherson Bay as habitat | Response to IR-EIS-05-197 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional Lake Whitefish baseline data | Response to IR-EIS-08-379 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 5.3.4 | Other Potential Aquatic Habitat | Response to Information Requests | Provides additional information on the absence of benthic invertebrate data | Response to IR-EIS-05-198 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.1.3 | Excavation and Construction of Underground Facilities | Response to Information Requests | Provides additional information related to potential effects of Waste Rock Management Area (WRMA) construction and operation | Response to IR-EIS-03-55 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 7.4.2.2 | Changes in Surface Water Quality | Response to Information Requests | Assesses the potential effects on Lake Whitefish of a 100-year storm or mechanical failure | Response to IR-EIS-08-379 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 8.6.1 | Application of Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.6.2 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Table 11.1-1 | Effects Criteria and Levels for Determining Significance | Response to Information Requests | Provides additional information on magnitude levels for determining significance | Response to IR-EIS-08-362 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Appendix C | Fish Survey Data | Response to Information Requests | Provides clarification on fish and fish community data | Response to IR-EIS-01-14 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.2 | Precautionary Approach | Response to Information Requests | Provides clarification regarding the precautionary approach for air quality effects assessment and non-regulatory vs. regulatory frameworks | Response to IR-EIS-06-249 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.1 | Valued Ecosystem Components | Response to Information Requests | Provides clarification on the rationale for the selected VECs | Response to IR-EIS-08-321 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 4.2 | Indicators | Response to Information Requests | Provides clarification on the rationale for selection of indicators | Response to IR-EIS-08-322 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 4.2.1 | Air Quality | Response to Information Requests | Provides clarification on excluding acrolein as an air quality indicator | Response to IR-EIS-01-09 in OPR Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-09 Letter dated Jul.10, 2012 [6] | 606 | |

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| | | | Provides additional information on acrolein standards and results in respect of the new criteria | Response to IR-EIS-05-223 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 5.3.1 | Data Sources | Response to Information Requests | Provides clarification on data used in atmospheric modelling | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 5.3.3 | Precipitation | Response to Information Requests | Provides additional information on precipitation data | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 5.3.5 | Other Meteorological and Climate Parameters | Response to Information Requests | Provides clarification of quality of on-site meteorological data | Response to IR-EIS-04-133 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 5.4.2 | Existing Air Quality in the Local Study Area | Response to Information Requests | Provides additional information on air quality measurements | Response to IR-EIS-03-91 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.5 | Noise Levels | Response to Information Requests | Provides clarification regarding the sounds of nature and monitoring baseline noise levels considered for evaluating project noise impacts | Response to IR-EIS-06-254 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Table 5.5.2-1 | Summary of Noise Levels at Off-Site Monitoring Locations | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Table 5.5.2-2 | Detailed Summary of Sound Levels Recorded at R1 in 2005 | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 5.5.2-3 | Detailed Summary of Sound Levels Recorded at R2 in 2005 | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Table 5.5.2-4 | Detailed Summary of Sound Levels Recorded at R3 in 2007 | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Table 5.5.2-5 | Existing Noise Levels at Off-Site Noise Monitoring Locations | Response to Information Requests | Provides clarification of the sources of noise included | Response to IR-EIS-09-450 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 7.2.3.2 | Noise Levels | Response to Information Requests | Provides clarification on the blasting noise with respect to its effect on human health and mitigation | Response to IR-EIS-06-257 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 8.1 | Assessment Methods | Response to Information Requests | Provides clarification of the approach used in assessing effects | Response to IR-EIS-08-323 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 8.1.1.1 | Air Quality | Response to Information Requests | Provides an explanation regarding the approach taken to identifying adverse effects | Response to IR-EIS-08-327 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 8.2 | Air Quality | Response to Information Requests | Provides clarification on the sources included in the air modelling | Response to IR-EIS-08-324 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on the rationale for the indicators assessed | Response to IR-EIS-08-322 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Table 8.2.2-1 | Air Quality In-design Mitigation | Response to Information Requests | Provides additional information on dust emissions management | Response to IR-EIS-04-137 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification of mitigation measures | Response to IR-EIS-08-328 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 8.2.3.1 | Emissions | Response to Information Requests | Provides clarification on rationale used for determining the scenario for the bounding case for emission estimates (air quality) | Response to IR-EIS-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information provided on emissions of compounds not selected as indicators for air quality | Response to IR-EIS-04-138 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarifications on $SO_2$ emissions during site preparation and construction phase | Response to IR-EIS-04-140 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 8.2.3-1 | Daily Site Preparation and Construction Phase Emissions | Response to Information Requests | Provides clarification on the emissions of $NO_X$, $SO_2$, and CO for a single bounding scenario of Stage 1 | Response to IR-EIS-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification of modelled air emissions (i.e., blasting dust and non-combustive explosives included) | Response to IR-EIS-04-136 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides additional information on atmospheric emissions calculations | Response to IR-EIS-04-139 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 8.2.4 | Additional Mitigation Measures | Response to Information Requests | Provides additional information on dust emissions management | Response to IR-EIS-04-137 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| Sec. 8.3.3 | Direct Effects | Response to Information Requests | Provides additional information on uncertainties associated with CadnaA noise model and assumptions addressing the uncertainties | Response to IR-EIS-03-97 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.3.3.2 | Effects Predictions | Response to Undertakings | Provides visual representation of noise modeling results | Response to Undertaking MTIS 3 from Oct.11 Technical Information Session #2 in OPG Letter dated Dec. 20, 2012 [20] | 842 | |
| Sec. 8.3.4 | Additional Mitigation Measures | Response to Information Requests | Provides clarification on plans for mitigation of intermittent noise to be generated during site preparation and construction | Response to IR-EIS-09-454 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 8.4.1 | Application of a Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.4.2 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 11.1.2-1 | Effects Magnitude Levels for Noise | Response to Information Requests | Provides clarification on two definitions of low magnitude noise levels | Response to IR-EIS-05-225 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 13.1 | Initial Scope of the Follow-up Monitoring Program | Response to Information Requests | Provides the rationale for location of monitoring station | Response to IR-EIS-05-174 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Appendix B, Table B-1 | Basis for the EA | Response to Information Requests | Provides clarification on stages where blasting emissions could be expected | Response to IR-EIS-04-136 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix C | Meteorology and Climate | Response to Information Requests | Provides clarification on the rationale for the meteorological data used in the assessment | Response to IR-EIS-08-326 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Appendix C, Sec. C2 | Data Sources | Response to Information Requests | Provides clarification on data used in atmospheric modelling | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Appendix C, Sec. C2.2 | Meteorological Data Sources | Response to Information Requests | Provides clarification on QA/QC process for meteorology data; temperature data; use of 10-m and 50-m tower level readings; meteorological parameters and data sources | Response to IR-EIS-01-10 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification of meteorological data set | Response to IR-EIS-04-132 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification of quality of on-site meteorological data | Response to IR-EIS-04-133 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Appendix C, Sec. C2.3 | Comparison of Dispersion Meteorology with Regional Stations | Response to Information Requests | Provides clarification on QA/QC process for meteorology data; temperature data; use of 10-m and 50-m tower level readings; meteorological parameters and data sources | Response to IR-EIS-01-10 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Appendix C, Sec. C5 | Precipitation | Response to Information Requests | Provides additional information on precipitation data | Response to IR-EIS-04-131 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Appendix C, Sec. C8 | Inversions and Mixing Heights | Response to Information Requests | Provides clarification of mixing heights | Response to IR-EIS-04-132 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Appendix C, C8.3 | Lake Breeze and Thermal Internal Boundary Layer Phenomena | Response to Information Requests | Provides clarification on land-lake and thermal internal boundary layer phenomena | Response to IR-EIS-01-11 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Appendix D | Climate Change | Response to Information Requests | Provides more recent information on potential climate change effects on precipitation intensity | Response to IR-EIS-04-143 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Appendix D, Table D2.3.3-1 | Forecast Annual Temperature Trends | Correction | Provides updated information on forecast annual temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-2 | Forecast Annual Precipitation Trends | Correction | Provides updated information on forecast annual precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Appendix D, Table D2.3.3-3 | Forecast Winter Temperature Trends | Correction | Provides updated information on forecast winter temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-4 | Forecast Winter Precipitation Trends | Correction | Provides updated information on forecast winter precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-5 | Forecast Spring Temperature Trends | Correction | Provides updated information on forecast spring temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-6 | Forecast Spring Precipitation Trends | Correction | Provides updated information on forecast spring precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-7 | Forecast Summer Temperature Trends | Correction | Provides updated information on forecast summer temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-8 | Forecast Summer Precipitation Trends | Correction | Provides updated information on forecast summer precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-9 | Forecast Fall Temperature Trends | Correction | Provides updated information on forecast fall temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D2.3.3-10 | Forecast Fall Precipitation Trends | Correction | Provides updated information on forecast fall precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Appendix D, Sec. D3 | Climate Trends for Use in Assessment | Correction | Provides additional information on historic temperature and precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D3-1 | Historic and Future Temperature Trends | Correction | Provides additional information on historic and future temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix D, Table D3-2 | Historic and Future Precipitation Trends | Correction | Provides additional information on historic and future precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix F | Air Modelling Methods | Response to Information Requests | Provides additional information on air dispersion and noise model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification on the sources included in the air modelling | Response to IR-EIS-08-324 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Appendix F, Sec. F1 | Air Dispersion Model | Response to Information Requests | Provides additional information on air dispersion modelling | Response to IR-EIS-03-90 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Appendix F, Table F4-2 | Site Preparation and Construction Phase Air Quality Emissions Assumptions | Response to Information Requests | Provides clarification on how dust generated by the trucking and dumping of waste rock has been incorporated into the air quality model | Response to IR-EIS-04-148 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | Correction | The "batch plant" row should be moved to first row on page F-23, above the sub-heading that reads "Excavation and Construction of Underground Facilities" | Response to IR-EIS-04-142 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on the number of vehicles per hour hauling waste rock (i.e., correctly listed as 2 V/hr in the sample calculations, however, the base quantity is incorrectly shown as 5 V/hr) | Response to IR-EIS-04-148 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix F, Sec. F4.1.1 | Sample Calculations | Response to Information Requests | Provides additional information on modification of emission calculations for near field loss | Response to IR-EIS-08-330 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Appendix F, Sec F4.2 | Site Preparation and Construction Phase | Response to Information Requests | Provides clarification on rationale used for determining the scenario for the bounding case for emission estimates (air quality) | Response to IR-EIS-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification of modelled air emissions (i.e., blasting dust and non-combustive explosives included) | Response to IR-EIS-04-136 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides additional information on atmospheric emissions calculations | Response to IR-EIS-04-139 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix G | Noise Modelling Methods | Response to Information Requests | Provides additional information on air dispersion and noise model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification of the use of noise adjustments | Response to IR-EIS-09-432 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Appendix G Sec. G1.1 | CadnaA Prediction Model | Response to Information Requests | Provides additional information on the noise modelling standard used | Response to IR-EIS-10-479 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Appendix G, Sec. G1.1.4 | Model Uncertainty and Sensitivity | Response to Information Requests | Provides additional information on uncertainties associated with CadnaA noise model and assumptions addressing the uncertainties | Response to IR-EIS-03-97 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Appendix G, Sec. G4 | Source Noise Emissions | Response to Information Requests | Provides clarification on use of variability in noise predictions | Response to IR-EIS-09-453 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Appendix I | Vibrations Assessment | Response to Information Requests | Provides clarification on vibrations assessment | Response to IR-EIS-06-257 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Appendix I, Sec. I6 | Prediction of Peak Ground Vibration Levels | Response to Information Requests | Provides additional information on effects on Bruce A and B | Response to IR-EIS-07-303 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Appendix J, Sec. J1.1 | Air Quality | Response to Information Requests | Provides additional information on location of maximum predicted concentrations of non-indicator compounds | Response to IR-EIS-04-141 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Appendix J, Table J.1.1.5-1 | Nitrate Deposition for Stream C Catchment Area | Response to Information Requests | Provides clarification on the calculations of the estimated effects on suspended solids and nitrate concentration in surface water due to atmospheric deposition during construction | Response to IR-EIS-04-146 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Atmospheric Environment TSD (NWMO DGR-TR-2011-02 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Appendix J, Sec. J1.2.2 | Human Health Receptor Predictions | Response to Information Requests | Provides clarification regarding the rating levels and calculated %HA | Response to IR-EIS-06-255 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| | | | Provides clarification regarding the rating levels and calculated %HA | Response to IR-EIS-06-256 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5 | Description of Existing Environment | Response to Information Requests | Provides clarification regarding the rationale for the selection of the Cobourg Formation to host the DGR | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Fig. 5.1.2-1 | Location of Deep DGR-Series and Shallow US-Series Boreholes | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 5.2 | Traditional Knowledge and Aboriginal Sharing | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 5.3.1-1 | Site Study Area with Locations of Monitoring Wells | Response to Information Requests | Provides additional information on locations of Waste Rock Management Area, shafts boreholes and monitoring wells | Response to IR-EIS-03-54 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.4 | Overburden Geology | Response to Undertakings | Provides clarification on the environment of deposition and genetic aspects of the subsurface deposits found on the DGR site | Response to Undertaking TIS 4 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 5.4.1 | Site Study Area and Project Area | Response to Information Requests | Provides additional information on locations of Waste Rock Management Area, shafts boreholes and monitoring wells | Response to IR-EIS-03-54 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.5.1.8 | Natural Resources | Response to Information Requests | Provides clarification on assessment of natural resources and the status of known historical oil and gas exploration wells drilled within 40 km of the site | Response to IR-EIS-05-162 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.5.2.11 | Site-scale Structural Geology | Response to Information Requests | Provides clarification of interpreted fracture origin and timing related to new information related to geochronologic dating (U-Pb) of fracture infill calcites occurring in Devonian strata | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 5.6 | Hydrogeology (Groundwater and Solute Transport) | Response to Information Requests | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-04-126 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-05-163 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification regarding: 1) the confidence in the longevity of the abnormal pressures observed at the site, and 2) conservatism applied in the hydrogeologic and safety assessment modelling scenarios with regard to abnormal pressure evolution | Response to IR-EIS-04-113 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification as to how the hydraulic parameters used to represent the shale formations in the hydrogeologic modelling were derived<br>Provides justification for the hydrogeologic modelling discretization with respect to the Guelph and Salina A1 Unit aquifers | Response to IR-EIS-04-125 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 5.7.2 | Hydrogeochemical Data from the Bruce Nuclear Site | Response to Information Requests | Provides additional information on Phase I and Phase II site assessments | Response to IR-EIS-05-219 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on soil quality in the DGR Project Area | Response to IR-EIS-05-220 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.7.2.1 | Phase II ESA | Response to Information Requests | Provides supplementary soil quality information on select sites | Response to IR-EIS-09-470 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 5.7.3 | Illustrative Modelling of the Bruce Nuclear Site Geochemistry | Response to Information Requests | Provides justification for the proposed conceptual model of solute transport | Response to IR-EIS-04-128 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 5.8 | Soil Quality | Response to Information Requests | Provides additional information on soil quality in the DGR Project Area | Response to IR-EIS-05-220 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 5.9 | Geomechanics | Response to Undertakings | Provides additional information on geoscientific characterization | Response to Undertaking TIS 15 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides additional information on geoscientific characterization | Response to IR-EIS-08-372 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-373 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-374 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-375 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-376 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-377 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 5.9.2 | Geomechanical Properties: Rock Strength | Response to Information Requests | Provides clarification on Cobourg Formation core strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.10 | Regional Seismicity | Response to Information Requests | Provides clarification on seismic activity in Bruce region | Response to IR-EIS-03-75 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 6.2.1.3 | Excavation and Construction of Underground Facilities | Response to Information Requests | Provides clarification regarding controlled drill and blast techniques for shaft sinking | Response to IR-LPSC-03-57 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Geology TSD (NWMO DGR-TR-2011-03 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.4 | Overburden and Shallow Bedrock Groundwater Quality | Response to Information Requests | Provides additional information on characteristics of waste rock pile runoff and potential effects | Response to IR-EIS-03-96 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.8 | Seismicity | Correction | Change on line 4, para 2 on p.249 | Item #18 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Sec. 8.9 | Summary of Assessment | Correction | Change in last sentence on p.250 | Item #19 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Sec. 8.9.1 | Application of Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | Response to Undertakings | Provides supplementary information on selection of indicators for surface water quality | Response to Undertaking TIS 13 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 4.2.2 | Surface Water Quality | Response to Information Requests | Provides clarification on the rationale for excluding hydrocarbons, oils and greases from the indicator list | Response to IR-EIS-05-227 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 5.1.2 | Field Studies | Response to Information Requests | Provides rationale for the field studies which were conducted in support of the DGR project for hydrology and surface water quality | Response to IR-EIS-03-66 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.4.3 | Surface Runoff and Drainage | Response to Information Requests | Provides an explanation of the absence of flow data in drainage ditches | Response to IR-EIS-07-299 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 5.4.3-2 | Drainage Areas and Flows in the DGR Surface Footprint | Response to Information Requests | Provides clarification on the calculations of the estimated effects on suspended solids and nitrate concentration in surface water due to atmospheric deposition during construction | Response to IR-EIS-04-146 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 5.5 | Surface Water Quality | Response to Information Requests | Provides clarification on surface water quality | Response to IR-EIS-03-79 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides surface water quality data for control sites | Response to IR-EIS-07-293 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 5.5.1 | Surface Water Quality in Lake Huron and Embayments | Response to Information Requests | Provides results of surface water quality monitoring completed in MacPherson Bay post-submission | Response to IR-EIS-08-387 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Table 5.5.1-1 | Summary of Lake Huron Water Quality Sampling Results | Response to Information Requests | Provides clarification on surface water quality in Lake Huron | Response to IR-EIS-03-79 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.5.2 | Water Quality in Surface Drainage Features in Site Study Area | Response to Information Requests | Provides additional information on discharges to the South Railway Ditch | Response to IR-EIS-07-299 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 5.5.2.1 | Surface Water Quality Sampling Program | Response to Information Requests | Provides rationale for the field studies which were conducted in support of the DGR project for hydrology and surface water quality | Response to IR-EIS-03-66 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.5.2.4 | Water Temperature | Response to Information Requests | Provides additional information on surface water quality (i.e., temperature) | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-14 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 5.5.2.5 | Metals | Response to Information Requests | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.5.2.7 | Sediment Quality | Response to Information Requests | Provides additional information on the annual sediment sampling program | Response to IR-EIS-03-83 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional baseline information on sediment quality in the Site and Local Study Areas | Response to IR-EIS-07-295 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 7.2.2 | Indirect Changes | Response to Information Requests | Provides additional information on potential for infiltration | Response to IR-EIS-09-473 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 7.3 | Surface Water Quality | Response to Information Requests | Provides clarification of the use of natural variability in assessing effects | Response to IR-EIS-05-188 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 7.3.1.1 | Discharge of Stormwater from the DGR Project Site | Response to Undertakings | Provides additional information on site drainage and stormwater management | Response to Undertaking TIS 10 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 7.3.2.2 | Changes in Surface Water Quantity and Flow | Response to Information Requests | Provides additional information effects on changes in water flow and quality | Response to IR-EIS-05-190 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on effects on changes in water flow and quality | Response to IR-EIS-09-471 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 8.2 | Surface Water Quantity and Flow | Response to Information Requests | Provides clarification of effects on groundwater recharge and Stream C | Response to IR-EIS-07-298 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 8.3 | Surface Water Quality | Response to Information Requests | Provides additional information on characteristics of waste rock pile runoff and potential effects | Response to IR-EIS-03-96 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional information on surface water quality | Response to IR-EIS-05-185 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides additional information on the evaluation of nitrate concentrations | Response to IR-EIS-05-189 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides information on proposed mitigation monitoring of runoff from the waste rock pile | Response to IR-EIS-10-489 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 8.3.2 | In-design Mitigation | Response to Information Requests | Provides additional information on potential mitigation measures | Response to IR-EIS-04-130 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Sec. 8.3.3 | Direct Effects | Response to Information Requests | Provides additional information on predicted effects | Response to IR-EIS-04-130 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 8.3.4.1 | Estimated Effects on Suspended Solids and Nitrate Concentration in Surface Water Due to Atmospheric Deposition during Construction | Response to Information Requests | Provides clarification on the calculations of the estimated effects on suspended solids and nitrate concentration in surface water due to atmospheric deposition during construction | Response to IR-EIS-04-146 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 8.4.1 | Application of a Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.4.2 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Undertakings | Provides clarification on temperature trends | Response to Undertaking TIS 7 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Undertakings | Provides clarification on precipitation trends | Response to Undertaking TIS 7 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 10.4 | Effects of the DGR Project on Climate Change | Response to Undertakings | Provides clarification on the effects of the DGR project on climate change | Response to Undertaking TIS 7 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 15 | References | Correction | Change in Reference 18 on p.128 | Item #20 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Appendix D | Summary of Water Quality Criteria | Response to Information Requests | Provides corrected/new reference criteria, for comparison only | Response to IR-EIS-07-294 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Appendix E | 2007 and 2009 Surface Water Sampling Results | Response to Information Requests | Provides clarification on surface water sampling program results | Response to IR-EIS-03-79 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Appendix F | 2009 Sediment Sampling Results | Response to Information Requests | Provides additional information on the annual sediment sampling program | Response to IR-EIS-03-83 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional information on sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Hydrology and Surface Water Quality TSD (NWMO DGR-TR-2011-04 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional baseline information on sediment quality in the Site and Local Study Areas | Response to IR-EIS-07-295 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Appendix G, Sec. G1.3 | Nitrate Concentration Increase | Response to Information Requests | Provides clarification on the calculations of the estimated effects on suspended solids and nitrate concentration in surface water due to atmospheric deposition during construction | Response to IR-EIS-04-146 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Terrestrial Environment TSD (NWMO DGR-TR-2011-05 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.1 | Selection of VECs | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.3 | Field Programs | Response to Information Requests | Provides rationale for the field studies which were conducted in support of the DGR project for the terrestrial environment | Response to IR-EIS-03-66 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.4.1 | Site Study Area and Project Area | Response to Information Requests | Provides additional information on condition and qualities of the wetlands | Response to IR-EIS-03-85 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides information on the occurrence of dwarf lake iris within the study areas | Response with additional information for IR-EIS-01-15 in OPG Letter dated Aug.9, 2012 [8] | 683 | |
| | | | Provides additional information on wetland and aquatic community types that occur within the Project Area and the Site Study Area | Response to IR-EIS-05-168 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig.5.4.1-1 | ELC Mapping in the Site Study Area | Response to Information Requests | Provides additional information on condition and qualities of the wetlands | Response to IR-EIS-03-85 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Terrestrial Environment TSD (NWMO DGR-TR-2011-05 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.7.1.3 | Herpetofauna | Response to Information Requests | Provides additional information on western chorus frog under existing conditions within the Project Area and Site Study Area | Response to IR-EIS-05-170 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification on observation of Western Chorus Frog | Response to IR-EIS-10-498 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 5.7.2.1 | Birds | Response to Information Requests | Provides additional information on why Type E botulism mortalities in waterfowl are not influenced by the operations at the Bruce nuclear site | Response to IR-EIS-05-193 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.8 | Significant Species | Response to Information Requests | Provides additional information on species at risk within the study area | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-15 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional information on species at risk under existing conditions within the study areas | Response with additional information for IR-EIS-01-15 in OPG Letter dated Aug.9, 2012 [8] | 683 | |
| | | | Provides additional information on snapping turtle under existing conditions within the Project Area and Site Study Area | Response to IR-EIS-05-168 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on western chorus frog under existing conditions within the Project Area and Site Study Area | Response to IR-EIS-05-170 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on searches conducted in relation to select significant species | Response to IR-EIS-08-370 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |

| Terrestrial Environment TSD (NWMO DGR-TR-2011-05 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides supplementary information on select significant species | Response to IR-EIS-10-498 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Table 5.8.3-2 | Provincially Significant Wildlife Species in Regional Study Area Based on a Review of the NHIC Database | Response to Information Requests | Provides clarification on the assessment of the Eastern Hognose Snake | Response to IR-EIS-05-169 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 7.3.1.4 | Herpetofauna | Response to Information Requests | Provides additional information on species at risk within the study area | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-15 Letter dated Jul10, 2012 [6] | 606 | |
| | | | Provides information on mitigation measures to avoid unacceptable effects on snapping turtles | Response to IR-EIS-09-477 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 8.2 | Plant Species | Response to Information Requests | Provides additional information on potential effects of the DGR Project on species of conservation concern (dwarf lake iris) | Response with additional information for IR-EIS-01-15 in OPG Letter dated Aug.9, 2012 [8] | 683 | |
| Sec. 8.2.3 | Mitigation Measures | Response to Information Requests | Provides additional information on mitigation measures | Response to IR-EIS-08-353 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 8.3 | Wildlife Species | Response to Information Requests | Provides additional information on potential effects of the DGR Project on species of conservation concern | Response with additional information for IR-EIS-01-15 in OPG Letter dated Aug.9, 2012 [8] | 683 | |

| Terrestrial Environment TSD (NWMO DGR-TR-2011-05 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.3.2 | Likely Effects | Response to Information Requests | Provides information about habitat usage and potential effects of the DGR Project on Canada warbler and eastern meadowlark | Response to IR-EIS-07-305 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 8.3.3 | Mitigation Measures | Response to Information Requests | Provides additional information on mitigation measures to prevent amphibians and reptiles from accessing the DGR site | Response to IR-EIS-10-490 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 8.5.1 | Application of a Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.5.2 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Provides clarification on decision trees used in determination of significance of residual adverse effects | Response to IR-EIS-03-94 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Terrestrial Environment TSD (NWMO DGR-TR-2011-05 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Appendix C, Table C-4 | Significant Wildlife Species in Bruce County Based on a Review of the Natural Heritage Information Centre Database (2006) | Response to Information Requests | Provides updates based on recent additions to designated species | Response to IR-EIS-07-305 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 4 | Selection of Valued Ecosystem Components | Response to Information Requests | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.1 | Valued Ecosystem Components | Response to Information Requests | Provides additional information on sensitivity to radiation of indicator species | Response to IR-EIS-05-215 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 4.1.2 | Benthic Invertebrates | Response to Information Requests | Provides clarification on the Valued Ecosystem Component selection for the radiation and radioactivity assessment | Response to IR-EIS-07-286 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 5.4.2 | Releases to Water | Response to Information Requests | Provides additional information on radioactivity in effluent from the WWMF | Response to IR-EIS-07-288 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| | | Correction | Corrects action level for gross beta in liquid effluent | Response to IR-EIS-07-288 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Table 5.4.1-1 | Annual Releases to Air in Gaseous Effluent from Bruce Nuclear Site | Response to Information Requests | Provides additional information on historic releases and rationale for changes | Response to IR-EIS-07-287 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.5 | Radioactivity in the Atmospheric Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification that no additional information on specific radionuclides in particulate and noble gases is available | Response to IR-EIS-06-238 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 5.5.2 | Tritium in Precipitation | Response to Information Requests | Provides more recent data on tritium concentrations in precipitation in the Local Study Area | Response to IR-EIS-07-289 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 5.5.3 | Radioactive Particulate | Response to Information Requests | Provides clarification on gross beta deposition | Response to IR-EIS-05-208 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on C-14 concentration in air | Response to IR-EIS-05-209 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Fig. 5.5.3-1 | Annual Average Gross Beta Deposition Rate in the Local Study Area | Response to Information Requests | Provides clarification on gross beta deposition | Response to IR-EIS-05-208 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on C-14 concentration in air | Response to IR-EIS-05-209 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 5.5.3-2 | Annual Average Gross Beta Deposition Rate in the Regional Study Area | Response to Information Requests | Provides clarification on gross beta deposition | Response to IR-EIS-05-208 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on C-14 concentration in air | Response to IR-EIS-05-209 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.6 | Radioactivity in Surface Water | Response to Information Requests | Provides clarification on tritium and gross beta in surface water; list of radionuclides sampled | Response to IR-EIS-05-210 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.6.1 | Tritium and Gross Beta in Surface Water | Response to Information Requests | Provides additional information on drinking water monitoring program | Response to IR-EIS-03-78 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.7 | Radioactivity in the Aquatic Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.7.1 | Radioactivity in Sediments | Response to Information Requests | Provides additional information on the annual sediment sampling program | Response to IR-EIS-03-83 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional information sediment quality data | Response to IR-EIS-03-86 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides context for baseline for sediments | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-83 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| | | | Provides additional data on radionuclides in sediment in the Site Study Area | Response to IR-EIS-06-238 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 5.7.2 | Shoreline Gamma Survey | Response to Information Requests | Provides additional information on shoreline gamma survey | Response to IR-EIS-03-87 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 5.7.3 | Radioactivity in Fish | Response to Information Requests | Provides additional information on the annual fish sampling program | Response to IR-EIS-03-84 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides context for fish data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-84 in OPG Letter dated Aug. 9, 2012 [8] | 684 | |
| Sec. 5.8 | Radioactivity in the Terrestrial Environment | Response to Information Requests | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 5.8.1 | Vegetation | Response to Information Requests | Provides additional information on the annual garden fruit and vegetable and agricultural plant sampling program | Response to IR-EIS-03-88 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides context for vegetation data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-88 in OPG Letter dated Aug.9, 2012 [8] | 684 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.8.2 | Milk | Response to Information Requests | Provides additional information on the weekly milk sampling program | Response to IR-EIS-03-88 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides context for milk data baseline | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-88 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| Sec. 5.8.4 | Radioactivity in Soil | Response to Information Requests | Provides additional information on the annual soil sampling program | Response to IR-EIS-03-82 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides context for soil baseline data | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-82 in OPG Letter dated Aug. 9 [8] | 681 | |
| Sec. 5.9 | Radioactivity in Groundwater | Response to Information Requests | Provides additional information on the groundwater sampling program | Response to IR-EIS-03-81 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides context for baseline data for groundwater | Submission of supplementary material to IR Package #3 Response to IR-EIS-03-81 in OPG Letter dated Aug.9, 2012 [8] | 684 | |
| | | | Provides additional information on data quality objectives for the Radiological Environmental Monitoring Program at the Bruce nuclear site | Response to IR-EIS-05-214 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides information on depth of wells monitoring in the Radiological Environmental Monitoring Program | Response to IR-EIS-08-388 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 5.9-2 | Tritium Level in Bruce A and Bruce B Groundwater Monitoring Wells | Correction | Provides corrected information on monitoring location well number and level | Response to IR-EIS-06-240 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| Sec. 5.10 | Radiation Doses to Members of the Public | Response to Information Requests | Provides qualitative assessment of radiation dose to Aboriginal groups | Response to IR-EIS-05-216 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Table 5.10-2 | Radionuclides and Pathways to Critical Groups | Response to Information Requests | Provides qualitative assessment of radiation dose to Aboriginal groups | Response to IR-EIS-05-216 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Table 5.10-3 | Human Attributes | Response to Information Requests | Provides updated inhalation rates and doses | Response to IR-EIS-06-242 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 5.11.2 | Radiation Dose to Non-NEWs | Response to Information Requests | Provides clarification on radiological safety of workers during construction phase | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-25 Letter dated Jul.10, 2012 [6] | 606 | |
| Table 5.12-1 | Summary of Existing Radiation and Radioactivity | Response to Information Requests | Provides reference to OPG "Dose Limits and Exposure Control" procedure, which sets non-NEW Exposure Control Level of 100 μSv/a | Response to IR-EIS-09-431 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 7 | Second Screening for Measurable Change | Response to Undertakings | Provides qualitative assessment of radiation exposure to individual representatives of highly valued species of non-human biota | Response to Undertaking MTIS 1 from Oct.11 Technical Information Session #2 in OPG Letter dated Dec. 20, 2012 [20] | 842 | |
| | | | Provides qualitative assessment of radiation exposure to individual representatives of highly valued species of non-human biota | Response to Undertaking MTIS 2 from Oct.11 Technical Information Session #2 in OPG Letter dated Dec. 20, 2012 [20] | 842 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.1.1.1 | Dose Criteria for Members of the Public and Workers | Response to Information Requests | Provides clarification of the effective dose to nuclear energy workers | Response to IR-EIS-06-231 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| Sec. 8.1.5 | Application of Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.1.6 | Application of Traditional Knowledge in the Assessment | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.2 | Humans | Response to Information Requests | Provides dose calculations for critical groups | Response to IR-EIS-06-243 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 8.2.5 | Potential Dose to Members of the Public | Response to Information Requests | Provides supplementary information on the stormwater management pond tritium level during the site preparation and construction and operation phases | Response to IR-EIS-10-483 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Sec. 8.2.5.1 | Dose from Airborne and Waterborne Releases | Response to Inforamtion Requests | Provides additional information on radiological changes in groundwater quality | Response to IR-EIS-06-239 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 8.3.3 | Non-human Biota Exposure to Radiation | Response to Inforamtion Requests | Provides supplementary information on the stormwater management pond tritium level during the site preparation and construction and operation phases | Response to IR-EIS-10-483 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

| Radiation and Radioactivity TSD (NWMO DGR-TR-2011-06 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Table 13.1-1 | Potential Follow-up Monitoring Related to Radiation and Radioactivity | Response to Information Requests | Provides clarification on monitoring of tritium during construction | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-01 Letter dated Jul.10, 2012 [6] | 606 | |
| Appendix D | Detailed Radiation Dose Calculations (Humans) | Response to Information Requests | Provides clarification of release rate time unit | Response to IR-EIS-06-244 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 | |
| Appendix D, Sec. D2 | Estimated Dose to the Public – Sample Calculation for Dose from C-14 through the Air Pathway | Response to Information Requests | Provides doses to the public based on a detailed pathway analysis specific to the DGR Project | Response to IR-EIS-06-245 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |

| Malfunctions, Accidents and Malevolent Acts TSD (NWMO DGR-TR-2011-07 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 3.2 | Initiating Events – Site Preparation and Construction, Operations, and Decommissioning Phases | Response to Information Requests | Provides clarification of the likelihood of rock fall / rock burst | Response to IR-EIS-07-304 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Table 3.2-1 | Summary of the Initiating Events Considered | Response to Information Requests | Provides clarification that explosions are considered credible accident for the site preparation and construction phase | Response to IR-EIS-01-03 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 4.3.1.1 | Members of the Public | Response to Information Requests | Provides clarification of the basis for the one hour public exposure duration, and of the mitigation measures | Response to IR-EIS-09-430 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 |
| Sec. 4.3.2.1 | Humans | Response to Information Requests | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 |
| Sec. 4.4 | Mitigation, Contingency Plans and Emergency Preparedness | Response to Information Requests | Provides clarification on relevant radiological response programs/ procedures and emergency response procedures | Response to IR-EIS-01-04 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 5.4.1.1 | Spill of Fuels, Chemicals, Lubricants or Oils | Response to Information Requests | Provides additional information on the rationale for the size of spills considered | Response to IR-EIS-07-279 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 6 | Malevolent Acts | Response to Information Requests | Provides clarification on threats and theft as potential malevolent acts | Response to IR-EIS-05-195 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |

| Malfunctions, Accidents and Malevolent Acts TSD (NWMO DGR-TR-2011-07 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides estimated public doses due to malevolent acts | Response to IR-EIS-06-248 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |
| | | | Provides a discussion of risk and consequences from aerial assault | Response to IR-EIS-08-355 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |

| Socio-Economic Environment TSD (NWMO DGR-TR-2011-08 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 4 | Selection of VECs | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| | | | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-48 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| | | | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 5.1.1.1 | Field Studies | Response to Information Requests | Provides clarification on the 2009 Public Attitude Research | Response to IR-EIS-01-31 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on site neighbour survey protocol | Response to IR-EIS-03-77 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 5.2 | Traditional Aboriginal Knowledge | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |

| Socio-Economic Environment TSD (NWMO DGR-TR-2011-08 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.4.1 | Population and Demographics | Response to Information Requests | Provides additional information on population distribution within the Local Study Area | Response to IR-EIS-03-76 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 5.4.2.3 | Health and Safety Facilities and Services | Response to Information Requests | Provides additional information on population distribution within the Local Study Area | Response to IR-EIS-03-76 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 5.5.1 | Employment | Response to Information Requests | Provides clarification on employment of aboriginal peoples at Bruce nuclear site | Response to IR-EIS-05-221 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Sec. 5.6.1 | Housing | Response to Information Requests | Provides clarification on permanent private dwellings | Response to IR-EIS-01-30 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | Response to Undertakings | Provides additional information on the proportion of seasonal to year-round residences | Response to Undertaking SeTIS 1 from Mar.20 Technical Information Session #3 in OPG Letter dated Apr.19, 2013 [26] | 968 |
| Sec. 5.6.3.2 | Transportation Infrastructure | Response to Information Requests | Provides clarification of traffic volume estimates | Response to IR-EIS-05-199 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| Sec. 5.9 | Public Attitudes Toward Personal and Community Well-Being | Response to Information Requests | Provides additional information on the community well-being survey | Response to IR-EIS-03-70 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| | | | Provides additional information on employment status of participants in the Public Attitude Research | Response to IR-EIS-05-218 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |

| Socio-Economic Environment TSD (NWMO DGR-TR-2011-08 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Table 5.9.1-2 | Community Issues that Affect Feelings of Personal Health or Sense of Personal Safety | Response to Information Requests | Provides clarification on interpretation of reported data | Response to IR-EIS-03-71 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 6.11.8.5 | Cancer Incidence | Response to Information Requests | Provides additional information on cancer risk factors in Bruce County | Response to IR-EIS-08-390 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Table 8.3.1-2 | DGR Project Associated Population Summary | Response to Information Requests | Provides clarification of population projections | Response to IR-EIS-05-184 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Sec. 8.4.1.1 | Likely Effects (Employment) | Response to Information Requests | Provides additional information explaining why boom and bust effects were not considered in the cumulative effects assessment | Response to IR-EIS-08-369 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Sec. 8.5.3.3 | Community Character | Response to Information Requests | Provides additional rationale with respect to the effects on community assets | Response to IR-EIS-08-368 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Sec. 8.6.2.1 | Cultural and Heritage Resources | Response to Information Requests | Provides the location of heritage sites in the Local Study Area and confirms that there are no buildings 40 years old or more that will be removed or demolished | Response to IR-EIS-08-332 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| | | | Confirms that no cultural landscapes, structures, marine archaeology and engineering works of cultural heritage value will be affected by the DGR Project | Response to IR-EIS-08-331 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 8.8.1.2 | Noise | Response to Information Requests | Provides clarification on noise thresholds and frequency changes, variable modulation, increased impulsiveness | Response to IR-EIS-06-256 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |
| Sec. 8.9.3 | Application of a Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Table 10.1-1 | Historic and Future Temperature Trends | Response to Information Requests | Provides additional information on historic temperature trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Table 10.1-2 | Historic and Future Precipitation Trends | Response to Information Requests | Provides additional information on historic precipitation trends | Response to IR-EIS-04-144 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewable Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Sec. 13.1 | Initial Scope of the Program | Response to Information Requests | Provides an explanation regarding how the follow-up monitoring program will be sufficient to capture effects | Response to IR-EIS-08-368 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Appendix C, Sec. C2. | Protocol for Site Neighbour Survey | Response to Information Requests | Provides clarification on site neighbour survey protocol | Response to IR-EIS-03-77 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |

| Socio-Economic Environment TSD (NWMO DGR-TR-2011-08 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Appendix D | Illustrated Community Well-Being Survey Results | Response to Information Requests | Provides additional information on the community well-being survey | Response to IR-EIS-03-70 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 |
| Appendix E | Economic Model Assumptions | Response to Information Requests | Provides additional information on Economic Model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |

| Aboriginal Interests TSD (NWMO DGR-TR-2011-09 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| ES.4 | Results | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between the Saugeen Ojibway Nation (SON) and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 2.4.2 | Spatial Boundaries | Response to Information Requests | Provides additional information on spatial boundaries and scale | Response to IR-EIS-03-45 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification on the suitability of the study areas for the decommissioning and abandonment phases | Response to IR-EIS-05-182 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 2.4.2.3 | Site Study Area | Response to Information Requests | Provides clarification on the historical origin of the delineation of the exclusion zone | Response to IR-EIS-08-339 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Fig. 3.1-1 | Schematic of DGR Project | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 4 | Selection of Valued Ecosystem Components (VECs) | Response to Information Requests | Provides additional information on selection of Aboriginal Interests Valued Ecosystem Components (VECs) | Response to IR-EIS-03-47 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides additional information on selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-65 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Aboriginal Interests TSD (NWMO DGR-TR-2011-09 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.1 | Identification of Aboriginal Interests | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.1.2 | Aboriginal Heritage Resources | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 4.1.3 | Traditional Use of Land and Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.2 | Aboriginal Traditional Knowledge | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| | | | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.3 | VECs | Response to Information Requests | Provides clarification regarding the selection of Valued Ecosystem Components (VECs) | Response to IR-EIS-03-46 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 4.3.1.2 | Aboriginal Heritage Resources | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 4.3.1.3 | Traditional Use of Land and Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |

| Aboriginal Interests TSD (NWMO DGR-TR-2011-09 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.4.1.2 | Dickie Lake/ Jiibegmegoong (BbHj-12) | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 5.5 | Traditional Use of Land and Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 6.2.1.11 | Workers, Payroll and Purchasing | Response to Information Requests | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 7.2.1 | Direct Changes | Response to Information Requests | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 7.4 | Traditional Use of Land and Resources | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 7.4.1 | Direct Changes | Response to Information Requests | Provides update on status of MNO Participation Agreement | Response to IR-EIS-02-43 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 8 | Identification and Assessment of Environmental Effects | Response to Information Requests | Provides clarification regarding the consideration and use of traditional knowledge in determining significant effects | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 8.2.1.1 | Direct Effects | Response to Information Requests | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |

| Aboriginal Interests TSD (NWMO DGR-TR-2011-09 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.2.4 | Positive Effects | Response to Information Requests | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 8.3.2 | Mitigation Measures | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 8.5.1 | Application of a Precautionary Approach in the Assessment | Response to Information Requests | Provides clarification regarding the application of the precautionary approach | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 11 | Significance of Residual Adverse Effects | Response to Information Requests | Narrative explaining the logic used and clarifying the significance assessment | Response to IR-EIS-12-510 in OPG Response Letter dated Mar.28, 2014 [33] | 1836 | √ |
| Sec. 12 | Effects of the Project on Renewable and Non-Renewabee Resources | Response to Information Requests | Provides clarification regarding the application of sustainability principles | Response to IR-EIS-03-44 in OPG Response to IR Package #3 Letter dated Jul. 9, 2012 [5] | 608 | |
| Sec. 14 | Conclusions | Response to Information Requests | Provides updates on status of the Jiibegmegoong burial site ceremony and monitoring protocol between SON and Ontario Hydro/OPG | Response to IR-EIS-02-42 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides additional information relating to increase opportunity for employment | Response to IR-EIS-09-468 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |

| DGR EA Follow-up Monitoring Program (NWMO DGR-TR-2011-10 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 1 | Introduction | Response to Information Requests | Provides additional information on follow-up monitoring during decommissioning and abandonment | Response to IR-EIS-06-235 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 |
| Sec. 1.7 | Radiological Regulatory Monitoring | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 2.1 | Sampling | Response to Information Requests | Provides additional information on monitoring frequency for rock pile runoff | Response to IR-EIS-08-395 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Sec. 3 | Groundwater Monitoring | Response to Information Requests | Provides clarification on surface water sampling program (flow and quality) | Response to IR-EIS-07-301 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 3.1 | Groundwater Quality | Response to Information Requests | Updates information on monitoring well network | Response to IR-EIS-03-57 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides additional information on proposed shallow subsurface groundwater monitoring | Response to IR-EIS-05-173 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| Sec. 7.2 | Surface Air Monitoring Program | Response to Information Requests | Provides clarification on the substances excluded from the proposed monitoring program | Response to IR-EIS-05-175 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Sec. 8 | Radiological Monitoring | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| DGR EA Follow-up Monitoring Program (NWMO DGR-TR-2011-10 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification regarding the rationale for not including monitoring of gross alpha in the proposed EA follow-up monitoring program | Response to IR-EIS-06-237 in OPG Response to IR Package #6 Letter dated Oct.31, 2012 [16] | 795 |
| Sec. 8.2 | Radiological Analysis of Groundwater | Response to Information Requests | Provides clarification on monitoring of tritium during construction | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-01 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 13 | Contingency Procedures | Response to Information Requests | Provides additional information on contingency planning in the context of risk avoidance | Response to IR-EIS-09-411 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 |
| Appendix A, Table 1 | Proposed Monitoring Summarized by Category | Correction | Change in row 1, "Air Quality" & column 4, "Environmental Management Plan", on p.A4 | Item #21 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| | | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Appendix A, Table 2 | Baseline Monitoring Program | Correction | Change in 2nd header on p.A6 | Item #22 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| Appendix A, Table 3a | EA Follow-up Monitoring Program – Site Preparation and Construction Phase | Correction | Change in row 2, "C-EA-GW1" & column 2, "Monitoring Activity", on p.A10 | Item #23 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| | | Response to Information Requests | Provides new information on waste rock monitoring | Response to IR-EIS-04-160 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |

| DGR EA Follow-up Monitoring Program (NWMO DGR-TR-2011-10 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides the rationale for location of monitoring station | Response to IR-EIS-05-174 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification on the substances excluded from the proposed monitoring program | Response to IR-EIS-05-175 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification of monitoring duration | Response to IR-EIS-05-176 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides additional information on the rationale for monitoring frequency | Response to IR-EIS-05-172 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| | | | Provides additional information on proposed shallow subsurface groundwater monitoring | Response to IR-EIS-05-173 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| | | | Provides clarification on surface water sampling program (flow and quality) | Response to IR-EIS-07-301 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| | | | Provides additional information on monitoring frequency for rock pile runoff | Response to IR-EIS-08-395 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Appendix A, Table 4a | Environmental Management Plan Monitoring Program – Site Preparation and Construction Phase | Response to Information Requests | Provides clarification on underground non-radiological air quality monitoring under the heading "Atmospheric" | Response to IR-LPSC-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| DGR EA Follow-up Monitoring Program (NWMO DGR-TR-2011-10 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides additional information on monitoring locations | Response to IR-EIS-04-134 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Appendix A, Table 4b | Environmental Management Plan Monitoring Program – Operations | Response to Information Requests | Provides clarification on underground non-radiological air quality monitoring under the heading "Atmospheric" | Response to IR-LPSC-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides additional information on monitoring locations | Response to IR-EIS-04-134 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| | | Correction | Change in row 4, "O-EMP-GW1" & column 2, "Monitoring Activity", on p.A19 | Item #23 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| Appendix A, Table 5a | Radiological Regulatory Monitoring Program – Site Preparation and Construction | Response to Information Requests | Provides clarification on underground radiological monitoring (air, water) | Response to IR-LPSC-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on monitoring of tritium during construction | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-01 Letter dated Jul.10, 2012 [6] | 606 |
| Appendix A, Table 5b | Radiological Regulatory Requirements Monitoring Program – Operations | Response to Information Requests | Provides clarification on underground radiological monitoring (air, water) | Response to IR-LPSC-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| DGR EA Follow-up Monitoring Program (NWMO DGR-TR-2011-10 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on radionuclides that could be detected through the ventilation exhaust air monitoring | Response to IR-EIS-06-236 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 |
| Appendix A, Table 6 | Conventional Regulatory Monitoring Program | Response to Information Requests | Provides clarification on surface water sampling program (flow and quality) | Response to IR-EIS-07-301 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |

| Environmental Impact Statement Summary | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. on p.20 | Emplacement rooms | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. on p.22 | Footprint of the lay-out of the DGR emplacement rooms | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-6 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. on p.24 | Aerial map of the DGR footprint | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| p.40 | Cumulative Environmental Effects | Response to Information Requests | Provides clarification on scope of WWMF upgrades | Response to IR-EIS-04-103 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| | | | Provides clarification on cumulative effects assessment | Response to IR-EIS-04-110 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Ch. 1 | Introduction | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 1.3.2 | Postclosure Period | Response to Information Requests | Provides clarification on the alternative means "no institutional control necessary" | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on institutional controls | Response to IR-EIS-05-181 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification on institutional controls | Response to IR-EIS-05-194 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification on institutional controls | Response to IR-EIS-08-363 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Fig. 1-3 | Schematic of the DGR | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 1.9 | Strategies Used for the DGR Project | Response to Information Requests | Provides clarification on peer review | Response to IR-EIS-01-18 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 2.1.5 | Bruce Nuclear Site Development | Response to Information Requests | Provides clarification on waste incineration at WWMF | Response to IR-EIS-04-104 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 2.5.3.8 | Severe Weather | Response to Information Requests | Provides new information on the sensitivity of maximum flood level to hydrologic and hydraulic parameters | Response to IR-EIS-07-282 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 3-1 | Borehole and Geophysical Investigations at the Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 3.2.2 | Descriptive Hydrogeological Site Model | Response to Information Requests | Provides justification for the assessment that the laboratory-determined permeability data at Core Labs are high and overestimate the in-situ rock mass permeabilities at the Bruce nuclear site | Response to IR-EIS-09-417 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 3.4 | Additional Geoscientific Investigations | Response to Undertakings | Provides results of the 2011 shaft pilot hole program | Response to Undertaking TIS 15 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides additional information related to geotechnical verification activities in support of design and construction verification | Response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32] | 1792 | √ |
| Ch. 4 | Geoscience | Response to Information Requests | Provides additional information on geoscience model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Sec. 4.1.1.1 | Stratigraphy | Response to Information Requests | Provides clarification on the 3DGF model | Response to IR-EIS-08-380 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.1.2.1 | Stratigraphy | Correction | Correction to a typographical error in the text, where pyrite should be stated to be found in "trace to minor amounts" instead of "trace amounts" in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-419 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | Response to Information Requests | Clarifies the definitions of "trace" and "minor" in the context of rock chemistry | Response to IR-EIS-09-419 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.1.2.3 | Site-Scale Structural Geology | Response to Information Requests | Provides justification for the current assessment of sub-surface features – identified as potential faults from interpretations of the 2D seismic reflection survey – to be artifacts of data processing. Rationalization for the lack of a 3D seismic survey is also provided | Response to IR-EIS-05-165 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on the source and breath of information in the Geosynthesis and Descriptive Site Geosphere Model with respect to confidence in the assessment of stratigraphic continuity within the upper Ordovician shale cap rocks | Response to IR-EIS-09-416 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides clarification of interpreted fracture origin and timing related to new information related to geochronologic dating (U-Pb) of fracture infill calcites occurring in Devonian strata | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.2 | Geomechanics | Response to Undertakings | Provides additional information on geoscientific characterization | Response to Undertaking TIS 15 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides clarification regarding the influence of rock creep on the long term geomechanical stability of the underground facility | Response to IR-EIS-07-306 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-372 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-373 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-374 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-375 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-376 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information on geoscientific characterization | Response to IR-EIS-08-377 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 4.2.2 | Geomechanical Properties: Rock Strength and Deformation | Response to Information Requests | Provides clarification on Cobourg Formation core strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 4.3.2 | Hydrogeochemical Data from the Bruce Nuclear Site | Response to Information Requests | Provides rationale for the exclusion of sample data from the presented major ion profiles (i.e., samples are not representative of fluid chemistry due to analytical artifacts) | Response to IR-EIS-09-423 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Fig. 4-34 | TDS Concentration versus Depth for DGR Boreholes | Response to Information Requests | Provides a TDS versus depth plot that differentiates groundwaters from porewaters, as presented in Figure 4.54 of the DGSM | Response to IR-EIS-09-442 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.3.2.3 | Intermediate to Deep System Groundwater and Porewater Characterization | Response to Information Requests | Provides clarification on the characterization of the sedimentary formation with respect to presence of biogenic versus thermogenic methane. Provides justification for the current interpretations and assessment of the origin of the methane gas in the system. | Response to IR-EIS-09-424 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides a summary of the updated geochemical conceptualization in the context of the natural tracers and the natural gases (methane and helium), providing clarification and further justification for the natural barrier hypothesis and the assessment that solute transport is diffusion-dominated in the Ordovician formations | Response to IR-EIS-09-435 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides a reference Eh-pH diagram for iron (aqueous and mineral) speciation.<br>Provides reference to key sections in the DGSM and Geosynthesis where justifications and rationale for the characterization of redox conditions at the Bruce nuclear site, using indirect methods, are presented. | Response to IR-EIS-09-436 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides potential hydraulic processes that would allow Pleistocene melt waters to recharge the Salina A1 aquifer at the site | Response to IR-EIS-09-438 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Fig. 4-39 | Concentration Distributions for $CH_4$ and $\delta^{13}C$ and $\delta^{2}H$ in $CH_4$ | Response to Information Requests | Provides justification for the assessment of diffusion-dominated transport in the Ordovician sediments. Provides summary of the differences in laboratory methodology used for DGR-3 and DGR-4 cores, which is proposed to account for the observed differences in the $\delta^{2}H$ values of methane between the two boreholes. | Response to IR-EIS-09-434 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 4-41 | Discrimination Diagram Indicating Fields for $CH_4$ of Biogenic ($CO_2$ Reduction and Fermentation) and Thermogenic Origin | Response to Information Requests | Provides clarification on the characterization of the sedimentary formation with respect to presence of biogenic versus thermogenic methane. Provides justification for the current interpretations and assessment of the origin of the methane gas in the system. | Response to IR-EIS-09-424 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.3.2.4 | Solute Transport Mechanisms: Evidence for Diffusion | Correction | Corrects a typographical error regarding the $D_e$ values measured from DGR drill cores (p.152) | Response to IR-EIS-09-425 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | Response to Information Requests | Provides a summary of the measures of reliability for the $D_e$ values | Response to IR-EIS-09-425 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.3.3 | Illustrative Modelling of the Bruce Nuclear Site Geochemistry | Response to Information Requests | Provides justification for the proposed conceptual model of solute transport | Response to IR-EIS-04-128 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides rationale and justification for the key assumptions and parameters used in the illustrative geochemical modelling of the Bruce nuclear site in the context of testing the solute transport hypotheses (i.e., diffusion-dominated transport and long solute residence times). Provides a summary of the updated geochemical conceptualization for the Bruce nuclear site and key assumptions of the illustrative model. | Response to IR-EIS-09-444 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 4-48 | Results of the "Diffusion from Above" Modelling Scenario | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Fig. 4-49 | Results of $\delta^{18}O$ Diffusion Simulation (dashed lines) Compared to Measured Porewater $\delta^{18}O$ Data | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 4.3.5 | Hydrogeochemistry Summary | Response to Information Requests | Provides clarification of the terminology, "long time periods", as used in the technical supporting reports in the context of porewater and solute longevity (e.g., $^{18}O$) in the deep groundwater system at the Bruce nuclear site | Response to IR-EIS-09-437 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.4 | Hydrogeology | Response to Information Requests | Provides explanation for the bimodal porosity distribution observed in the Ordovician shales, and justification for the assignment of porosity values to the Ordovician shales for the regional- and site-scale hydrogeological modelling | Response to IR-EIS-09-440 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 4.4.1 | Conceptual Model | Response to Undertakings | Provides additional information regarding the piezometric surface in the carbonate aquifer beneath the DGR surface facilities | Response to Undertaking TIS 6 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on hydrogeologic conditions within the A1 and Guelph aquifers beneath the Bruce nuclear site | Response to Undertaking TIS 7 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides clarification for the choice of the hydraulic installations (WestBay MP system) during site characterization activities | Response to IR-EIS-04-157 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 4-4 | Base-Case Hydrogeological Parameter Values for Regional-Scale and Site-Scale Modelling | Response to Information Requests | Provides explanation for the bimodal porosity distribution observed in the Ordovician shales, and justification for the assignment of porosity values to the Ordovician shales for the regional- and site-scale hydrogeological modeling | Response to IR-EIS-09-440 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides justification for the horizontal hydraulic conductivities and anisotropy values utilized in the hydrogeologic modeling | Response to IR-EIS-09-439 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 4.4.4 | System Performance Measures | Response to Information Requests | Provides clarification as to why the hydraulic head in the Precambrian was not measured for the purposes of hydrogeological modelling | Response to IR-EIS-04-100 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification as to how the hydraulic parameters used to represent the shale formations in the hydrogeologic modelling were derived<br>Provides justification for the hydrogeologic modelling discretization with respect to the Guelph and Salina A1 Unit aquifers | Response to IR-EIS-04-125 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides justification for the current assessment that the site is located above an inter-reefal facies association and is not located in close proximity to an unidentified pinnacle reef | Response to IR-EIS-05-211 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 4.4.4.1 | Regional-Scale Model | Response to Information Requests | Provides justification for the parameterization of the Salina A1 Unit, and the Guelph and Cambrian formation aquifers in the hydrogeological modeling | Response to IR-EIS-04-127 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Table 4-6 | Matrix of Regional-Scale Simulations Performed | Response to Information Requests | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-04-126 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-05-163 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 4.4.4.2 | Regional-Scale Paleoclimate Modelling | Response to Information Requests | Provides justification for the parameterization of the Salina A1 Unit, and the Guelph and Cambrian formation aquifers in the hydrogeological modeling | Response to IR-EIS-04-127 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 4.4.4.5 | 1D Two-Phase Model | Response to Information Requests | Provides clarification regarding: 1) the confidence in the longevity of the abnormal pressures observed at the site, and 2) conservatism applied in the hydrogeologic and safety assessment modelling scenarios with regard to abnormal pressure evolution | Response to IR-EIS-04-113 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Fig. 4-72 | Two-Phase Flow Analysis at 400 ka for the Base-Case Scenario | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Fig. 4-73 | Two-Phase Flow Analysis at 1.25 Ma for Base-Case Scenario | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Fig. 4-74 | Two-Phase Flow Analysis at 300 ka with a Fracture Zone at 585 mBGS | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 4-75 | Two-Phase Flow Analysis at 1 Ma with Air Generation | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Fig. 4-76 | Two-Phase Flow Analysis at 1 Ma with a Fracture Zone at 585 mBGS and Air Generation | Response to Information Requests | Provides additional information on goodness-of-fit of the numerical model solutions to observed data | Response to IR-EIS-09-445 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 4.5.1.2 | Glacial Loading | Response to Information Requests | Provides clarification as to why 2 MPa is an appropriate approximation of the increase in horizontal stress imposed on the shafts and seals during glaciations due to crustal bending | Response to IR-EIS-04-156 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 4.5.2.1 | Seismicity | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates Peak Ground Acceleration value of a 1/2500 per annum probability event to align with NBCC 2010 | Response to IR-LPSC-01-03 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on seismic activity in Bruce region | Response to IR-EIS-03-75 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 4.5.3 | Natural Resources | Response to Information Requests | Provides clarification on assessment of natural resources and the status of known historical oil and gas exploration wells drilled within 40 km of the site | Response to IR-EIS-05-162 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.5.4 | Repository Induced Disturbances: Long-Term DGR Performance and Integrity | Response to Information Requests | Provides clarification regarding definitions of EDZ and EdZ | Response to IR-EIS-03-52 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification regarding the influence of rock creep on the long term geomechanical stability of the underground facility | Response to IR-EIS-07-306 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 4.5.4.2 | Shaft Seal Analysis | Response to Information Requests | Provides clarification as to why 2 MPa is an appropriate approximation of the increase in horizontal stress imposed on the shafts and seals during glaciations due to crustal bending | Response to IR-EIS-04-156 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification regarding the results of analyses of glacial loading on the DGR lateral development and shafts | Response to IR-EIS-08-393 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 4.5.4.3 | Long-Term Cavern and Pillar Stability | Response to Information Requests | Provides additional geomechanical analyses to illustrate the influence of overburden removal during glacial events on barrier integrity of the Ordovician shale cap rocks | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 4.6 | Geoscience Summary | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 4.6.2 | Seismically Quiet: Comparable to Stable Canadian Shield Setting | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 5.2 | Waste Classification | Response to Information Requests | Provides clarification of categorization of wastes arriving at DGR | Response to IR-EIS-03-59 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on use of DGR for low and intermediate level waste only | Response to IR-EIS-04-99 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides clarification on the definitions of low-level waste, intermediate-level waste, and high-level waste | Response to IR-EIS-11-504 in OPG Response to IR Package #11 Letter dated Jun.6, 2013 [30] | 1157 | |
| Sec. 5.3 | Waste Types and Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 5-1 | LLW Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Table 5-2 | ILW Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 5.4 | Waste Containers and Packages | Response to Information Requests | Provides additional detail on waste containers/packages | Response to IR-EIS-09-474 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 5.5 | Waste Acceptance Criteria | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| | | | Provides clarification on exclusion criterion | Response to IR-EIS-06-260 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Table 5-5 | Summary of Waste Acceptance Criteria | Response to Information Requests | Provides definition of "ignitable wastes" as used in the category of wastes excluded from DGR | Response to IR-EIS-03-58 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification regarding "leachate toxic" wastes | Response to IR-EIS-04-147 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides additional clarification on Waste Acceptance Criteria | Response to IR-EIS-08-342 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional clarification on Waste Acceptance Criteria | Response to IR-EIS-08-343 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional clarification on Waste Acceptance Criteria | Response to IR-EIS-08-347 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional clarification on Waste Acceptance Criteria | Response to IR-EIS-08-348 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional clarification on Waste Acceptance Criteria | Response to IR-EIS-08-350 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides clarification on Waste Acceptance Criteria | Response to IR-EIS-10-488 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 5.6 | Waste Characterization Program | Response to Information Requests | Provides clarification on verification of waste inventories during DGR operation | Response to IR-EIS-01-33 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on the OPG waste characterization program | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-06 and IR-EIS-01-20 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides clarification of characterization of old waste streams | Response to IR-EIS-11-509 in OPG Response to IR Package #11 Letter dated Jun.6, 2013 [30] | 1157 | |
| Table 5-6 | Waste Volumes in Reference Forecast (Rounded) | Response to Information Requests | Provides additional clarification on waste volumes | Response to IR-EIS-08-378 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 5.9 | Radionuclide Inventory | Response to Information Requests | Provides clarification on characterization of the inventory of radionuclides | Response to IR-EIS-01-05 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates information on characterization of uncertainty with radioactive measurements | Response to IR-EIS-01-06 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on calculating quantities of radionuclides | Response to IR-EIS-01-07 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on uncertainty associated with radionuclide inventory | Response to IR-EIS-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification for the basis of inventories for key radionuclides | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-06 and IR-EIS-01-20 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides clarification of basis for reference inventories | Response to IR-EIS-06-264 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 5.10 | Physical and Chemical Characteristics of Key Radionuclides | Response to Information Requests | Provides clarification on use of DGR for low and intermediate level waste only | Response to IR-EIS-04-99 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 6.1.1 | DGR Requirements | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Table 6-1 | Regulations, Standards and Codes | Response to Information Requests | Changes "CSA N285-08" to "CSA N285-08 with updates" | Response to IR-LPSC-01-04 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Adds CSA A23.3 | Response to IR-LPSC-01-05 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Adds NEMA MG1 | Response to IR-LPSC-01-10 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on codes and standards for the design of the shaft liner | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-05 and IR-LPSC-03-17 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.2 | Surface Buildings and Infrastructure | Response to Information Requests | Provides additional design information on surface buildings | Response to IR-LPSC-01-06 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 6-2 | Layout of DGR Underground Facilities | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.2.1.2 | WPRB | Design update | Updates design description of electrical power reels | Item #3 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Updates design description with number of ILW packages per 8 h shift | Response to IR-LPSC-01-08 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.2.1.4 | Compressor Building | Response to Information Requests | Provides additional information on compressed air system | Response to IR-LPSC-01-09 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.2.2.1 | Ventilation Shaft Headframe and Collar House | Design update | Updates design description of shaft conveyances | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on second egress via the ventilation shaft area | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2.2.2 | Ventilation Shaft Hoist House | Design update | Updates design description of shaft conveyances | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.2.3 | WRMA | Response to Undertakings | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | Response to Information Requests | Provides additional information on the use of silt fences and vegetation to manage siltation around the waste rock management area | Response to IR-EIS-05-192 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information related to the use of overburden materials extracted as part of surface construction activities | Response to IR-EIS-05-200 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on the in-situ till in the areas of the WRMA and the Stormwater Management Pond (SWMP) | Response to IR-EIS-05-229 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.4.1 | Electrical Supply and Emergency Power | Response to Information Requests | Provides additional information on electrical supply and emergency power system<br>Updates the time required by the generators to connect to the system in case of a grid power outage | Response to IR-LPSC-01-10 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Table 6-3 | Electrical Power Loads | Response to Information Requests | Provides additional information on induction motors | Response to IR-LPSC-01-10 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.2.4.2 | Communications Systems | Response to Information Requests | Provides clarification on location of hard-wired emergency phones underground | Response to IR-LPSC-03-59 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.2.4.3 | Control and Monitoring Systems | Response to Information Requests | Provides additional information on the use of closed circuit cameras for the DGR facility | Response to IR-EIS-05-217 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.2.4.4 | Diesel Fuel Storage | Response to Information Requests | Provides additional information on diesel fuel storage | Response to IR-LPSC-01-10 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| Sec. 6.2.4.8 | Stormwater Management System | Response to Information Requests | Provides clarification on the stormwater management system, including outlet structure and sizing of stormwater management pond | Response to IR-LPSC-01-12 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on stormwater management pond, including the liner, point of influent and discharge control | Response to IR-LPSC-01-13 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on effect of stormwater management pond on groundwater quality, provision for prolonged retention and deployment of water treatment | Response to IR-EIS-03-56 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on the use of silt fences and vegetation to manage siltation around the waste rock management area | Response to IR-EIS-05-192 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on the in-situ till in the areas of the WRMA and the Stormwater Management Pond (SWMP) | Response to IR-EIS-05-229 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides clarification on safety margin in design | Response to IR-EIS-07-285 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| | | | Provides clarification on stormwater management of the DGR site | Response to IR-EIS-08-352 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional clarification on provision for deployment of water treatment | Response to IR-EIS-09-472 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |

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| | | | Provides additional information on the underground dewatering system and supporting surface features as presented in the July 18, 2012 Technical Information Session | Response to IR-LPSC-04-63 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | Response to Undertakings | Provides additional information on site drainage and stormwater management | Response to Undertaking TIS 10 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| | | | Provides additional information on the annual hydrologic information used in the modelling of the stormwater management system | Response to Undertaking TIS 14 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| | | | Provides additional information on the quantitative water budget for the DGR site | Response to Undertaking TIS 17 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 6.3 | Underground Facilities | Response to Information Requests | Provides clarification of postclosure safety relevance of some design features | Response to IR-LPSC-02-55 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides clarification on panel room development procedures | Response to IR-EIS-03-53 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| | | | Provides clarification on emergency egress via personnel access doors placed in each emplacement room end-wall | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Fig. 6-6 | Isometric View of the Repository Level | Design update | Updates configuration of underground services area | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 6-7 | DGR Base Case Layout | Design update | Updates configuration of underground services area | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.1.2 | Shaft Liner | Response to Information Requests | Provides additional design information on shaft liners | Response to IR-LPSC-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on design information of shaft liners | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-05 and IR-LPSC-03-17 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 6.3.1.4 | Main Koepe Friction Hoist | Design update | Updates design description of main shaft cage | Item #5 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.2.1 | Layout | Design update | Updates the ventilation shaft layout | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.2.2 | Shaft Liner | Response to Information Requests | Provides clarification on design information of shaft liners | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-05 and IR-LPSC-03-17 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 6.3.2.3 | Ventilation Shaft Hoisting System | Design update | Updates design description of ventilation shaft hoist arrangements | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | Response to Information Requests | Provides clarification on emergency egress duties required of the ventilation shaft | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Fig. 6-10 | Cross-Sectional View of Ventilation Shaft | Design update | Updates the ventilation shaft layout | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.2.4 | Ventilation Shaft Conveyances | Design update | Updates design description of shaft conveyances | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Correction | Change in para 1 on p.317 | Item #1 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Fig. 6-11 | Permanent Skip and Bale with Cage | Design update | Updates design description of ventilation shaft hoist arrangements | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.3 | Shaft Safety Systems | Design update | Updates design description of shaft safety systems | Item #4 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | | Updates design description of main shaft cage | Item #5 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.4 | Underground Shaft and Services Area | Design update | Updates various areas of design description | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides additional information on the permanent refuge station | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on the types of ground support requirements and tunnel shapes/geometries | Response to IR-EIS-05-187 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.3.5 | Emplacement Rooms | Response to Information Requests | Provides additional information on the types of ground support requirements and tunnel shapes/geometries | Response to IR-EIS-05-187 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Fig. 6-14 | Underground Services Area | Design update | Updates configuration of underground services area | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 6-15 | Main Access Tunnel Showing Typical Services | Design update | Updates tunnels and room dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 6-16 | Access Tunnel Showing Typical Services | Design update | Updates tunnels and room dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 6-17 | Emplacement Room Section View – Bin Type Waste Packages | Design update | Updates emplacement room dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Fig. 6-18 | Emplacement Room Section View – Resin Liner Type Waste Packages | Design update | Updates emplacement room dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.3.6 | Ramp to Shaft Bottom | Response to Information Requests | Provides clarification on alternate means of egress from the loading pocket area and shaft bottom via access ladders | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.3.8 | Underground Ventilation | Response to Information Requests | Provides clarification of the ventilation system operation | Response to IR-EIS-04-154 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Sec. 6.3.8.1 | Ventilation System and Operation | Response to Information Requests | Provides additional information on underground ventilation system and its operation | Response to IR-LPSC-01-14 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on ventilation design regarding capture of exhaust air by intake fans | Response to IR-EIS-04-134 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional clarification on the ventilation system design | Response to IR-EIS-09-409 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 6.3.8.2 | Ventilation System Capacity | Response to Information Requests | Provides clarification on estimated airflow requirements | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 6-20 | Underground Ventilation Distribution System | Design update | Updates configuration of underground services area | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Revises number of permanent refuge stations | Response to IR-LPSC-01-09 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.3.8.3 | Operations Ventilation | Response to Information Requests | Provides clarification on the distinguishing features between end walls, closure walls and the bulkheads for closing off panels | Response to IR-EIS-05-207 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 6.3.8.5 | Exhaust Fans | Response to Information Requests | Provides clarification on location of main exhaust fans | Response to IR-LPSC-01-14 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.3.9 | Monitoring of Underground Structures | Response to Information Requests | Provides additional information on geomechanical modeling and geotechnical verification of ground support | Response to IR-EIS-08-381 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides details on geotechnical activities to assess the performance of the openings | Response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32] | 1792 | √ |
| Sec. 6.3.10.4 | Underground Dewatering | Response to Information Requests | Provides clarification and additional information on underground dewatering system for DGR operation | Response to IR-LPSC-01-19 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on predicted water inflows | Response to IR-EIS-04-151 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides additional information on the underground dewatering system and supporting surface features as presented in the July 18, 2012 Technical Information Session | Response to IR-LPSC-04-63 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | Response to Undertakings | Provides additional information on preliminary estimate of groundwater inflow | Response to Undertaking TIS 11 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| Sec. 6.4 | DGR Waste Package Inventory | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 6.5 | Transfer Equipment and Emplacement Operations | Response to Information Requests | Provides additional information on the handling of waste packages | Response to IR-EIS-10-496 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |
| Sec. 6.5.2.2 | Groups A, B, C and D | Design update | Updates design description of electrical power reels | Item #3 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.5.3.1 | Room Profiles and Waste Package Allocation | Response to Information Requests | Provides clarification on approach to fire protection for emplacement rooms | Response to IR-LPSC-01-16 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on dimensions of emplacement rooms | Response to IR-EIS-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | Design update | Updates access tunnel and emplacement rooms dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 6.7.1 | Storage | Response to Information Requests | Provides clarification on storage of explosives during the site preparation and construction | Response to IR-EIS-07-280 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 6.7.2 | Conventional and Hazardous Waste Management | Response to Information Requests | Provides clarification on transportation of explosives during the site preparation and construction | Response to IR-EIS-07-280 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 6.8 | Fire and Life Safety | Response to Information Requests | Provides additional information on fire protection methodology | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-15, IR-LPSC-01-16, IR-LPSC-01-21, IR-LPSC-01-22 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides references to supporting information regarding emergency response already provided in previous IR responses and the July 18, 2012 Technical Information Session | Response to IR-EIS-05-186 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 6.8.1 | Fire Safety | Response to Information Requests | Provides clarification on fire protection during DGR operation | Response to IR-LPSC-01-43 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.8.3 | Fire Suppression | Response to Information Requests | Provides clarification on fire water supply to DGR site | Response to IR-LPSC-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on fire suppression methods | Response to IR-LPSC-01-22 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.8.3.2 | Underground | Response to Information Requests | Provides clarification on ventilation in the event of underground fire and use of fire doors | Response to IR-LPSC-01-15 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on use of dry standpipe at main shaft | Response to IR-LPSC-01-21 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.8.4 | Emergency Ventilation Controls | Response to Information Requests | Provides clarification on the approach to fire protection | Response to IR-LPSC-01-15 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.8.5 | Refuge Stations | Design update | Updates information on refuge stations | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Updates information on refuge stations | Response to IR-LPSC-01-09 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on location of portable refuge stations | Response to IR-EIS-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on use of refuge stations | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Fig. 6-28 | Location of Refuge Stations | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on location of portable refuge stations | Response to IR-EIS-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 6.9 | Emergency Response | Response to Information Requests | Provides clarification on ventilation in the event of release of significant volatile radionuclides/hazardous substances | Response to IR-LPSC-01-15 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on mine rescue support during operation | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides references to supporting information regarding emergency response already provided in previous IR responses and the July 18, 2012 Technical Information Session | Response to IR-EIS-05-186 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 6.10.1 | Radiological Control | Design update | Updates radiological zoning | Item #6 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on radiological zoning | Response to IR-LPSC-01-08 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 6-29 | Surface Radiological Zones | Design update | Updates radiological zoning | Item #6 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 6.11 | Radiation Monitoring | Response to Information Requests | Provides clarification on underground radiological monitoring (air, water) | Response to IR-LPSC-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.12 | Underground Air Quality Monitoring | Response to Information Requests | Provides clarification on underground non-radiological air quality monitoring | Response to IR-LPSC-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 6.13 | Access Tunnel Closure Walls | Response to Information Requests | Provides additional information on placement of waste within the two panels of the DGR | Response to IR-EIS-03-62 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on the bearing capacity of the proposed closure walls | Response to IR-EIS-04-150 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification on the distinguishing features between end walls, closure walls and the bulkheads for closing off panels | Response to IR-EIS-05-207 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Ch. 7 | Preclosure Safety Assessment | Response to Information Requests | Provides additional information on radiation dose model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Sec. 7.1 | Assessment Context and Criteria | Response to Information Requests | Provides clarification on radiological safety of workers during construction phase | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-25 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 7.1.2.1 | Radiological Protection | Response to Information Requests | Provides clarification on equivalent dose limits considered by the project | Response to IR-LPSC-01-07 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on the applicability of WWMF DRLs to DGR on preliminary basis | Response to IR-LPSC-01-40 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 7.2 | DGR Waste Packages | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 7.4 | Radiological Safety during Normal Operation | Response to Information Requests | Provides summary of the dose targets and likely dose consequences for workers and public | Response to IR-EIS-08-351 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| | | | Provides additional information on the range of possible gas pressures within closed panels during the operational period | Response to IR-EIS-09-463 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 7.4.2.1 | Source Terms - Air and Water Release Rates | Response to Information Requests | Provides clarification on fugitive emissions of H-3 species from LLSB at WWMF | Response to IR-EIS-01-08 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 7.4.2.3 | Public Dose Results - Air and Water Emissions | Response to Information Requests | Provides dose calculations for critical groups and provides clarification on the critical group and age class | Response to IR-EIS-06-243 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| | | | Provides doses to the public based on a detailed pathway analysis specific to the DGR Project | Response to IR-EIS-06-245 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 7.4.4 | Assessment of External Radiation on Workers and Public | Response to Information Requests | Provides clarification on assumptions used to calculate worker dose at various receptor locations | Response to IR-EIS-01-26 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides selected examples of worker dose estimates as supporting information | Response to IR-EIS-01-27 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec 7.5 | Accident Assessment | Response to Information Requests | Provides additional information on fire protection methodology | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-15, IR-LPSC-01-16, IR-LPSC-01-21, IR-LPSC-01-22 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides additional accident calculations to assess the impact of an exhaust air filtration system | Response to IR-EIS-04-135 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides dose estimates for non-credible events | Response to IR-EIS-06-270 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| Sec. 7.5.1.2 | Step 2: Initiating Events | Correction | Change in last bullet on p.422 | Item #2 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | Response to Information Requests | Provides an assessment of impact of potential events on the Bruce site that could affect the DGR | Response to IR-LPSC-01-41 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification of hurricane frequency | Response to IR-EIS-05-222 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| | | | Provides clarification of the likelihood of rock fall / rock burst | Response to IR-EIS-07-304 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Table 7-25 | Summary of the Initiating Events | Response to Information Requests | Provides clarification of hurricane frequency | Response to IR-EIS-05-222 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Sec. 7.5.3.2 | Exposure Duration | Response to Information Requests | Provides clarification of the basis for the one hour public exposure duration, and of the mitigation measures | Response to IR-EIS-09-430 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 7.5.3.3 | Dispersion Modelling for Releases | Response to Information Requests | Provides clarification on the selection of atmospheric dispersion factor for underground fire scenario | Response to IR-EIS-07-281 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 7.5.6 | Preventative and Mitigation Measures | Response to Information Requests | Provides clarification on process by which analysis of initiating events is incorporated into design, training, and procedural development | Response to IR-LPSC-01-42 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on the potential benefit of HEPA filters as an underground accident mitigation measure | Response to IR-EIS-09-402 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides clarification that evacuation and long-term relocation do not need to be considered | Response to IR-EIS-09-430 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Ch. 8 | Postclosure Safety Assessment | Response to Information Requests | Provides additional information on postclosure safety assessment model uncertainties and treatment | Response to IR-EIS-04-112 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Table 8-1 | Acceptance Criteria (NECs) for Protection of Non-Human Biota from Potential Radiological Impacts | Response to Information Requests | Provides clarification regarding why H-3 is not included in Table 8-1 | Response to IR-EIS-08-313 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 | |
| Sec. 8.4 | System Description | Response to Information Requests | Provides clarification of linkage of postclosure safety features to design and construction | Response to IR-LPSC-02-55 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides justification for neglecting lateral flow in the Cambrian formation and the placement of the lower boundary condition in the 3DS model | Response to IR-EIS-04-129 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification of the safety relevant features and redundancies in the design | Response to IR-EIS-09-466 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| Fig. 8-2 | Original (Left) and Final (Right) Preliminary Design | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Sec. 8.6 | Normal Evolution Scenario | Response to Information Requests | Provides an assessment of the estimated peak gas pressures in panels isolated by closure walls and the impact of closure walls on gas generation and migration | Response to IR-EIS-01-19 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides information on microbial effects | Response to IR-EIS-01-21 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification regarding postclosure safety assessment assumptions with respect to integrity of waste containers | Response to IR-EIS-04-152 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides additional information on microbial activity and reaction with sulphates. Provides additional information on supercriticality and non-ideality effects on gas properties. | Response to IR-EIS-09-404 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| | | | Provides additional information on the range of possible gas pressures within closed panels at the start of the postclosure period | Response to IR-EIS-09-463 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| Fig. 8-11 | Normal Evolution Scenario: Conceptual Model for Repository and Geosphere Contaminant Release and Migration Paths | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| Table 8-5 | Calculation Cases for the Normal Evolution Scenario | Correction | Change on row "NE-GT5" on p.508 | Item #3 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.6.2.8 | Mathematical Models and Software Implementation | Response to Information Requests | Provides clarification of the basis for confidence in the models | Response to IR-EIS-04-109 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Table 8-6 | Reference Values for Key Parameters for Normal Evolution Scenario | Correction | Corrects alignment of the text in the table, on p.513 | Item #4 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Box 2 (in Sec. 8.6.2) | Bentonite/Sand Seals | Response to Information Requests | Provides additional information on natural analogs for bentonite/sand durability | Response to IR-EIS-10-492 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Sec. 8.6.3 | Key Modelling Assumption for the Normal Evolution Scenario | Response to Information Requests | Provides additional information on key modelling assumptions | Response to IR-EIS-03-64 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification that solute transport through the shaft includes the shaft EDZ | Response to IR-LPSC-03-62 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.6.4.1 | Normal Evolution – Radioactive Decay | Response to Information Requests | Provides clarification on how radiological hazards change over time | Response to IR-EIS-04-105 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| Sec. 8.7 | Disruptive Scenarios | Response to Information Requests | Provides a discussion of alternative disruptive scenario | Response to IR-EIS-08-335 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| | | | Provides additional sensitivity studies on the effects of vertical faults | Response to IR-EIS-08-385 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides analysis of consequences of an abandoned repository with no shaft seals | Response to IR-EIS-09-460 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| Sec. 8.7.1 | Human Intrusion Scenarios | Response to Information Requests | Provides clarification on the alternative means "no institutional control necessary" | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the human intrusion scenario and mitigation measures | Response to IR-EIS-06-246 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |
| | | | Provides information on SKB rationale for 300-year intrusion period | Response to IR-EIS-09-412 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides additional information on calculated doses from human intrusion surface pathway assuming H-3 gas is released as HTO and no institutional control or societal memory | Response to IR-EIS-09-461 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Table 8-11 | Exposure Situations for the Human Intrusion Scenario | Correction | Change in the cell representing exposure of drill crew to drill core, on p.535 | Item #5 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Table 8-13 | Key Modelling Assumptions for the Human Intrusion Scenario | Correction | Change in cell of row 2 ("Drill core debris is not disposed of properly") and column 3 ("Impact of Assumptions") on p.540 | Item #6 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Sec. 8.7.2 | Severe Shaft Seal Failure Scenario | Response to Information Requests | Provides clarification on the severe shaft seal failure scenario and mitigation measures | Response to IR-EIS-06-247 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.7.2.3 | Severe Shaft Seal Failure Results | Correction | Change on 2nd line on p.550 | Item #7 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| | | Response to Information Requests | Provides clarification of the WWMF DRL C-14 dose information | Response to IR-EIS-07-310 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 | |
| Sec. 8.7.4 | Vertical Fault Scenario | Response to Information Requests | Provides clarification of basis for assumed faults | Response to IR-EIS-02-36 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| | | | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 | |
| Sec. 8.8 | Assessment Uncertainties | Response to Information Requests | Provides clarification on postclosure safety assessment uncertainties (i.e., scenario uncertainty, model uncertainty and data uncertainty) | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.8.2.1 | Repository Resaturation | Response to Information Requests | Provides clarification of the range of resaturation levels and consequences | Response to IR-EIS-04-119 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Fig. 8-46 | Depth of Water in Repository (Non-Water-Limited Cases) | Correction | Change on Fig.8-46, p.563 | Item #8 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 | |
| Sec. 8.8.2.2 | Waste Inventory | Response to Information Requests | Provides clarification on the uncertainties of contaminant inventories and impact on peak dose | Response to IR-EIS-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on the uncertainty range in inventories for key radionuclides | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-06 and IR-EIS-01-20 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 8.8.2.4 | Gas Generation | Response to Undertakings | Provides additional information on the elevated pressure impact on gas generation reactions | Response to Undertaking TIS 16 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 8.8.2.6 | Geosphere Transport Properties | Response to Information Requests | Provides information on diffusion coefficient uncertainty | Response to IR-EIS-02-35 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 8.8.2.7 | Shaft Seal Performance | Response to Information Requests | Provides additional information on shaft seal performance | Response to IR-EIS-03-64 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on the treatment of the shaft EDZ in solute transport models | Response to IR-LPSC-03-62 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of the shaft seal resaturation behaviour | Response to IR-EIS-04-153 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides potential impact of a significantly degraded asphalt interface | Response to IR-EIS-06-272 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 8.8.2.9 | Geosphere Horizontal Flow | Response to Information Requests | Provides concentrations and bounding impacts of radionuclides in the Cambrian Formation including horizontal flow in that formation | Response to IR-EIS-08-397 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 | |
| Sec. 8.8.2.11 | Glaciation | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides estimate of the impacts of 300 m of erosion | Response to IR-EIS-10-486 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Sec. 8.8.4 | Probabilistic Calculation | Response to Information Requests | Provides additional information on the probabilistic results | Response to IR-EIS-09-446 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| Sec. 8.8.5.2 | Backfilled Repository | Response to Information Requests | Provides clarification of analyses of effects of backfilling repository | Response to IR-LPSC-03-56 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.8.5.3 | Asphalt Shaft Seal | Response to Information Requests | Provides clarification of potential for chemicals of concern from the asphalt seal | Response to IR-EIS-03-63 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 8.9.6 | Uncertainties | Response to Information Requests | Provides clarification on postclosure safety assessment uncertainties (i.e., scenario uncertainty, model uncertainty and data uncertainty) | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification of the uncertainties in chemical reactions and their effects | Response to IR-EIS-04-114 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification regarding natural analogues have contributed to the confidence in the postclosure safety assessment | Response to IR-EIS-04-116 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification of the range of resaturation levels and consequences | Response to IR-EIS-04-119 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides clarification of the shaft seal resaturation behaviour | Response to IR-EIS-04-153 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information on plans to monitor waste degradation within repository | Response to IR-EIS-09-457 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 9.1 | Introduction | Response to Information Requests | Provides clarification of how information is identified and communicated during design and construction | Response to IR-LPSC-02-55 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Fig. 9-1 | DGR Project Site Preparation and Construction Schedule | Response to Information Requests | Provides clarification on site preparation and construction schedule in Fig. 9-1, including completion of engineering details and construction activities | Response to IR-LPSC-01-25 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on proposed sequencing for design development | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-25 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 9.2.3 | Site Grading | Response to Undertakings | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 9.2 | Site Preparation | Response to Information Requests | Provides clarification on proposed sequencing for design development | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-25 Letter dated Jul.10, 2012 [6] | 606 | |
| Fig. 9-2 | DGR Construction Layout | Response to Information Requests | Provides additional design information on temporary concrete batch plant and site services shown in Fig. 9-2 | Response to IR-LPSC-01-26 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides additional information related to the use of overburden materials extracted as part of surface construction activities | Response to IR-EIS-05-200 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Sec. 9.3.1 | Installation of Construction Services | Response to Information Requests | Provides clarification on emergency response and preparedness arrangements for construction phase | Response to IR-LPSC-01-45 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on mine rescue support during construction | Response to IR-LPSC-03-61 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 9.3.2 | Stormwater Management | Response to Information Requests | Provides clarification on the water treatment system and plant | Response to IR-LPSC-01-27 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on stormwater management of the DGR site | Response to IR-EIS-08-352 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | Response to Undertakings | Provides additional information on site drainage and stormwater management | Response to Undertaking TIS 10 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 9.3.3 | Waste Rock Handling | Response to Information Requests | Provides additional information on construction of waste rock management area | Response to IR-LPSC-01-28 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 9.3.4 | Conventional Hazards Materials Management | Response to Information Requests | Provides clarification on storage of explosives | Response to IR-EIS-01-02 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information regarding storage of explosives | Response to IR-EIS-09-403 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Table 9-1 | Projected Range of Annual Output of Waste | Response to Information Requests | Provides clarification on the estimated range of annual output of grey water and the estimated waste rock volume | Response to IR-LPSC-01-29 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 9.4 | Construction | Response to Information Requests | Provides clarification on construction of plenums as part of the shaft pre-sinking activities | Response to IR-LPSC-01-30 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on proposed sequencing for design development | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-25 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 9.4.1 | Ground Improvement | Response to Information Requests | Provides clarification on ground improvement methods considered by the project | Response to IR-LPSC-01-31 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information resulting from the 2011/2012 grouting trial at the ventilation shaft | Response to IR-LPSC-04-64 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| Sec. 9.4.2 | Preparation of Shaft Collars | Response to Information Requests | Provides clarification on the drill and blast and ground support techniques during shaft excavation considered by the project | Response to IR-LPSC-01-32 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 9.4.3 | Erection of Main Shaft and Ventilation Shaft Headframes | Response to Information Requests | Provides additional information on waste rock dumping facility and muck bay | Response to IR-LPSC-01-33 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 9-4 | Initiation of Shaft Sinking | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 9-5 | Complete Shaft Sinking and Establish Shaft Stations | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 9-6 | Initial Repository Level Development | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 9-7 | Complete Shaft Services Area and Establish Multiple Headings | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |
| | | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Fig. 9-8 | Complete Underground Development | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 9.4.5.1 | Description of Shaft Sinking | Response to Information Requests | Provides clarification on the drill and blast and ground support techniques during shaft sinking considered by the project | Response to IR-LPSC-01-32 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification regarding controlled drill and blast techniques for shaft sinking | Response to IR-LPSC-03-57 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on how the EDZ will be minimized during shaft construction | Response to IR-LPSC-03-62 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | Response to Undertakings | Provides additional information on the total weight of ammonia nitrate that would be used per sequenced shaft blast | Response to Undertaking TIS 3 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | | Provides additional information to support the reference excavation method of drill and blast versus roadheader | Response to Undertaking TIS 8 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 9.4.5.3 | Description of Initial Rock Support | Response to Information Requests | Provides clarification alternate means of treating the chamber walls before waste emplacement | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on geomechanical modeling and geotechnical verification of ground support | Response to IR-EIS-08-381 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 9.4.5.4 | Final Liner Construction | Response to Information Requests | Provides clarification on construction of shaft liners | Response to IR-LPSC-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on construction of shaft liners | Submission of supplementary material to IR Package #1 Response to IR-LPSC-01-05 and IR-LPSC-03-17 Letter dated Jul.10, 2012 [6] | 606 | |
| Sec. 9.4.7.1 | Excavation Methods and Installing Rock Support | Response to Information Requests | Provides additional information on excavation of underground openings and ground support | Response to IR-LPSC-01-34 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on alternate means of treating the chamber walls before waste emplacement | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides additional information on the types of ground support requirements and tunnel shapes/geometries | Response to IR-EIS-05-187 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| | | | Provides additional information on geomechanical modeling and geotechnical verification of ground support | Response to IR-EIS-08-381 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional information regarding basis for rock support design | Response to IR-EIS-10-485 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | Response to Undertakings | Provides additional information on the total weight of ammonia nitrate that would be used per sequenced shaft blast | Response to Undertaking TIS 3 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | | Provides additional information to support the reference excavation method of drill and blast versus roadheader | Response to Undertaking TIS 8 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |
| Sec. 9.4.7.2 | Development Sequence | Response to Information Requests | Provides clarification on construction of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on panel room development procedures | Response to IR-EIS-03-53 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 9.4.7.3 | Ventilation During Lateral Development | Response to Information Requests | Provides details on lateral development of underground facility | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 9.4.7.4 | Underground Services During Construction | Response to Information Requests | Provides clarification on the calculations, assumptions and confidence limits of the estimates for maximum excavation discharge and sump water pumping | Response to IR-EIS-04-101 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| | | | Provides additional information on predicted water inflows | Response to IR-EIS-08-392 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| Sec. 9.4.9 | Occupational Safety | Response to Information Requests | Provides clarification on fire protection during site preparation and construction | Response to IR-LPSC-01-36 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides details and clarification on conventional safety requirements during site preparation and construction | Response to IR-LPSC-01-37 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 9.4.11 | Commissioning | Response to Information Requests | Provides clarification on commissioning of temporary and permanent systems, structures and equipment used during construction | Response to IR-LPSC-01-38 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 10.1 | Radiation Protection Program | Response to Information Requests | Provides clarification on how ALARA is accounted for in the DGR | Response to IR-LPSC-01-08 in OPG Response IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides clarification on how ALARA is accounted for in the DGR | Response to IR-LPSC-01-44 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 10.3 | Environmental Protection Program | Response to Information Requests | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 10.4 | Monitoring Program | Response to Information Requests | Provides clarification on plans to monitor waste degradation within repository | Response to IR-EIS-01-32 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on plans to monitor waste degradation within repository | Response to IR-EIS-09-457 in OPG Response to IR Package #9 Letter dated Apr.15, 2013 [25] | 957 | |
| Sec. 10.4.1 | Radiological Monitoring Program | Response to Information Requests | Provides clarification on underground radiological monitoring (air, water) | Response to IR-LPSC-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on underground non-radiological air quality monitoring | Response to IR-LPSC-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information regarding the adequacy of the radiological environmental monitoring program in light of the DGR radionuclide inventory | Response to IR-EIS-03-67 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 10.7 | Emergency Preparedness and Emergency Response Program | Response to Information Requests | Provides clarification on emergency response and preparedness arrangements for the DGR project | Response to IR-EIS-06-269 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| Sec. 11.3 | Design and Construction Phase | Response to Information Requests | Provides clarification of how information is identified and communicated during design and construction | Response to IR-LPSC-02-55 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 | |
| Sec. 12.2.3.1 | Public Opinion | Response to Information Requests | Provides clarification on the 2005 telephone poll and the 2009 Public Attitude Research | Response to IR-EIS-01-31 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides analysis of confidence levels and errors associated with public attitude research data | Response to IR-EIS-03-70 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| Sec. 13.6.2 | Decommissioning of the Underground Services Area | Response to Information Requests | Provides clarification on the distinguishing features between end walls, closure walls and the bulkheads for closing off panels | Response to IR-EIS-05-207 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 | |
| Fig. 13-1 | Extent of Proposed Monolith | Design update | Provides updates to the extent of proposed monolith | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Sec. 13.6.3.1 | Design and Construction of Shaft Seal | Response to Information Requests | Provides clarification of the basis for the asphalt seal | Response to IR-EIS-03-63 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides clarification on removal of shaft infrastructure | Response to IR-LPSC-03-58 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 | |
| | | | Provides further clarifications of the shaft seal design | Response to IR-EIS-04-155 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 | |
| | | | Provides clarification of shaft seal testing plans | Response to IR-EIS-06-268 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 | |
| | | | Provides additional information on natural analogs for seal material durability | Response to IR-EIS-10-492 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 | |
| Sec. 13.6.5 | WRMA | Response to Undertakings | Provides clarification on the rationale for the planned top soil cover of 150 mm on the waste rock pile at closure | Response to Undertaking TIS 9 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 | |
| | | Response to Information Requests | Provides additional information regarding Waste Rock Management Area decommissioning vegetation plans | Response to IR-EIS-05-171 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 | |
| Table 13-1 | Waste Materials Arising from Decommissioning | Response to Information Requests | Provides clarification on waste materials to be removed as part of decommissioning<br>Provides further details on waste materials arising from decommissioning following construction | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| Table 13-2 | Projected Range of Conventional and Hazardous Wastes | Response to Information Requests | Provides clarification on waste materials estimated to be generated on yearly basis | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 13.11 | Decommissioning at the End of Construction | Response to Information Requests | Provides clarification on decommissioning activities associated with DGR decommissioning after construction | Response to IR-LPSC-01-47 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| Sec. 14.1 | Overview | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| Sec. 14.2 | International L&ILW Deep Geological Repositories | Response to Information Requests | Provides source of information on additional comparative information concerning international repositories | Response to IR-EIS-04-117 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 | |
| | | | Provides source of information and clarifications on comparative information concerning international repositories | Response to IR-EIS-08-366 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 | |
| | | | Provides additional detail on comparative information concerning international repositories | Response to IR-EIS-09-410 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 | |
| | | | Provides additional clarification on comparative information concerning international repositories and incorporation of international experience into the DGR project | Response to IR-EIS-11-503 in OPG Response to IR Package #11 Letter dated Jun.6, 2013 [30] | 1157 | |
| Table 14-3 | Arguments and Evidence for DGR Safety | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |

| Preliminary Safety Report (00216-SR-01320-00001 R000) | | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** | **New** |
| | | | Provides clarification on assessment of natural resources | Response to IR-EIS-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Provides additional information on the assessment of undiscovered oil, gas and mineral resources at the regional, local and site scale and also the uncertainties associated with the assessment | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-24 Letter dated Jul.10, 2012 [6] | 606 | |
| | | | Provides clarification of the safety relevant features and redundancies in the design | Response to IR-EIS-09-466 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 | |
| Table 14-4 | Summary of Arguments for DGR Safety | Response to Information Requests | Provides clarification of the role of waste containers | Response to IR-EIS-04-124 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 | |
| Ch. 15 | References | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 | |
| | | | Updates revision number of Geoscientific Verification Plan | Response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32] | 1792 | √ |
| Ch. 17 | Engineering Drawings 11T1076-C-SK-1, H333000-WP404-10-042-0001 H333000-WP404-10-042-0003 | Response to Undertakings | Provides more detailed information of the existing site conditions of the Bruce nuclear site and proposed DGR grading topography | Response to Undertaking TIS 12 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 | |

| Reference L&ILW Inventory for the DGR (00216-REP-03902-00003 R003) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| RS | Revision Summary | Response to Information Requests | Provides clarification of how changes to waste characterization is applied to historical and future packages | Response to IR-EIS-06-263 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |
| ES | Executive Summary | Response to Information Requests | Provides clarification on categories of L&ILW to be placed in the DGR | Response to IR-EIS-04-102 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| Sec. 1.2 | Background | Response to Information Requests | Provides clarification of characterization of old waste streams | Response to IR-EIS-11-509 in OPG Response to IR Package #11 Letter dated Jun.5, 2013 [30] | 1157 |
| Sec. 2.1 | Waste Volumes and Package Inventory | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 2.2 | Radionuclide Inventory | Correction | Change in 2nd para on p.10 | Item #9 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| | | Response to Information Requests | Provides clarification on methods for characterization of the radionuclide inventories | Response to IR-EIS-01-05 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides information on uncertainty of radionuclide measurements | Response to IR-EIS-01-06 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on calculating quantities of radionuclides | Response to IR-EIS-01-07 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on treatment of uncertainty associated with radionuclide inventory | Response to IR-EIS-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Reference L&ILW Inventory for the DGR (00216-REP-03902-00003 R003) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification on the uncertainty range in inventories for key radionuclides | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-06 and IR-EIS-01-20 Letter dated Jul.10, 2012 [6] | 606 |
| Table 2.2 | Low-Level Waste Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 2.3 | Intermediate-Level Waste Categories | Response to Information Requests | Provides clarification on alternative means of dealing with combustible waste | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 2.8 | Inventory of Non-Radioactive Components in Operational Low- and Intermediate-Level Waste | Response to Information Requests | Provides clarification on elements listed in Table 2.8 | Response to IR-EIS-04-107 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| Sec. 3.1 | Waste Volumes and Package Inventory | Response to Information Requests | Provides clarification of terms | Response to IR-EIS-04-108 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| Sec. 3.2 | Radionuclide Inventory | Response to Information Requests | Provides clarification of terms | Response to IR-EIS-04-108 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| Table 4.2 | Operational and Refurbishment Low- and Intermediate-Level Waste Package Inventory for Deep Geologic Repository | Response to Information Requests | Provides additional detail on waste containers/packages | Response to IR-EIS-09-474 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Reference L&ILW Inventory for the DGR (00216-REP-03902-00003 R003) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Appendix B | Specific Activities of Operational and Refurbishment Low- and Intermediate-Level Waste | Response to Information Requests | Provides clarification of basis for reference inventories | Response to IR-EIS-06-264 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 |
| Appendix B, Table B.1 | Summary of Specific Activities of Operational Low-Level Waste (As-received) | Response to Information Requests | Provides the amount of measurement data and the upper confidence levels in the mean for radionuclide and element concentrations determined by direct measurement or through measured scaling factor | Response to IR-EIS-08-384 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Appendix B, Table B.2 | Summary of Specific Activities of Operation Intermediate-Level Waste (As-received) | Response to Information Requests | Provides the amount of measurement data and the upper confidence levels in the mean for radionuclide and element concentrations determined by direct measurement or through measured scaling factor | Response to IR-EIS-08-384 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Appendix B, Table B.3 | Summary of Specific Activities of Reactor Refurbishment Wastes | Response to Information Requests | Provides the amount of measurement data and the upper confidence levels in the mean for radionuclide and element concentrations determined by direct measurement or through measured scaling factor | Response to IR-EIS-08-384 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |

| Reference L&ILW Inventory for the DGR (00216-REP-03902-00003 R003) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Appendix C, Table C.1 | Chemical Composition of Low- and Intermediate-Level Waste | Response to Information Requests | Provides the amount of measurement data and the upper confidence levels in the mean for radionuclide and element concentrations determined by direct measurement or through measured scaling factor | Response to IR-EIS-08-384 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Appendix D | Uncertainties Associated with Concentrations of Radionuclides and Chemicals in Low- and Intermediate-Level Waste | Response to Information Requests | Provides information for radionuclide content in the non-processible drums | Response to IR-EIS-06-262 in OPG Response to IR Package #6 Letter dated Dec.12, 2012 [18] | 832 |
| Appendix E | Reference Deep Geological Repository Data Sheets | Response to Information Requests | Provides additional detail on waste containers/packages | Response to IR-EIS-09-474 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 1.3 | Conceptual Layout of the DGR below the Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 2.2 | Regional Geology | Response to Information Requests | Provides justification for the assessment of the influence of major basement features on the occurrence of faults and fractures in the megablock encompassing the DGR site and the current interpretation of the structural geology as described in the 3DGFM | Response to IR-EIS-08-315 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Sec. 2.2.5.2 | 3D Geological Framework | Response to Information Requests | Clarifies the uncertainties in the 3DGF model and summarizes the multiple data sources and process used to develop the model.<br>Provides new information post licensing submission on stratigraphic observations from DGR-7 and -8. | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Sec. 2.2.5.3 | Michigan Basin Subsidence and Thermal History | Response to Information Requests | Provides additional information regarding the paleo-thermal evolution of the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-427 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 2.2.5.4 | Diagenesis | Response to Information Requests | Provides justification that the observed fracturing in the shallow Devonian and upper sections of the Late Silurian strata at the Bruce nuclear site will have no impact on the long-term integrity and safety of the DGR due to the isolated nature of the proposed Ordovician host rock | Response to IR-EIS-08-319 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | and associated diffusion-dominated porewater system | | |
| Sec. 2.2.5.5 | Karst and Paleokarst | Response to Information Requests | Provides justification for the current assessment with respect to inclusion of unconformities and paleo-karst horizons in assessment of DGR safety | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Sec. 2.2.6.4 | Regional Faults - Timing | Response to Information Requests | Provides justification for the assessment and interpretation of fracture timing and development in the Paleozoic sediments in the region surrounding the site.<br>Provides clarification on the estimated time for completion of the fracture mineral characterization study. | Response to IR-EIS-05-167 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| | | | Provides additional information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-415 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | | Provides information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-428 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 2.2.6.7 | Regional Fracture Patterns | Response to Information Requests | Provides additional information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-415 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-428 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 2.2.7 | Quaternary Geology and Glaciation | Response to Undertakings | Provides clarification on the environment of deposition and genetic aspects of the subsurface deposits found on the DGR site | Response to Undertaking TIS 4 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| Sec. 2.2.7.1 | Regional Quarternary Geology | Response to Information Requests | Provides clarification on shoreline evolution due to glacial rebound | Response to IR-LPSC-01-16 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 2.2.8 | Economic Geology | Response to Information Requests | Provides clarification on assessment of natural resources | Response to IR-EIS-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides additional information on the assessment of undiscovered oil, gas and mineral resources at the regional, local and site scale and also the uncertainties associated with the assessment | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-24 Letter dated Jul.10, 2012 [6] | 606 |
| | | | Provides clarification on assessment of natural resources and the status of known historical oil and gas exploration wells drilled within 40 km of the site | Response to IR-EIS-05-162 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| Sec. 2.2.8.3 | Bedrock Resources | Response to Information Requests | Provides historical information on MVT deposits in Southern Ontario | Response to IR-EIS-02-39 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 2.3 | Site-scale Geology | Response to Undertakings | Provides clarification on the environment of deposition and genetic aspects of the subsurface deposits found on the DGR site | Response to Undertaking TIS 4 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| | | Response to Information Requests | Provides justification for the assessment of the influence of major basement features on the occurrence of faults and fractures in the megablock encompassing the DGR site and the current interpretation of the structural geology as described in the 3DGFM | Response to IR-EIS-08-315 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Sec. 2.3.5.2 | Core Logging | Response to Information Requests | Provides additional information on fluid inclusion thermometry and radiometric age dating of fracture infill | Response to IR-EIS-02-38 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 2.3.6 | Hydrocarbon Occurrences | Response to Information Requests | Provides clarification on assessment of natural resources | Response to IR-EIS-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides additional information on the assessment of undiscovered oil, gas and mineral resources at the regional, local and site scale and also the uncertainties associated with the assessment | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-24 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 2.3.8 | Karst and Paleokarst Occurrences | Response to Information Requests | Provides justification for the current assessment with respect to inclusion of unconformities and paleo-karst horizons in assessment of DGR safety | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 2.3.9 | Site-scale Structural Geology | Response to Information Requests | Provides justification for the current assessment of sub-surface features – identified as potential faults from interpretations of the 2D seismic reflection survey – to be artifacts of data processing. Rationalization for the lack of a 3D seismic survey is also provided. | Response to IR-EIS-05-165 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| | | | Provides additional information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-415 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | | Provides information regarding the absolute age of fractures and associated calcite mineral infilling in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-428 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 2.3.9.1 | Fracture Analysis | Response to Information Requests | Provides clarification of interpreted fracture origin and timing related to new information related to geochronologic dating (U-Pb) of fracture infill calcites occurring in Devonian Strata | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |
| Sec. 2.3.10 | Summary | Response to Information Requests | Provides clarification of interpreted fracture origin and timing related to new information related to geochronologic dating (U-Pb) of fracture infill calcites occurring in Devonian Strata | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 3.2 | Geomechanical Rock Properties | Response to Information Requests | Provides clarification on Cobourg Formation core strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | Response to Undertakings | Provides additional information on geoscientific characterization | Response to Undertaking TIS 15 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| Sec. 3.2.1.1 | Intact Rock Properties | Response to Information Requests | Provides clarification of confidence assessment | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification regarding the number of tests required to establish adequate tensile strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of the sample population size used to assess triaxial strength character of an entire rock formation and effect of spatial distribution of samples on strength parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the sample population used to infer shear strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 3.3 | Uniaxial Compression Test Data for Collingwood, Cobourg and Sherman Fall: (a) UCS and (b) Elastic Modulus from Boreholes DGR-2 to DGR-6 | Response to Information Requests | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Fig. 3.7 | Hoek-Brown Failure Envelope for the Cobourg Formation | Response to Information Requests | Provides clarification of the sample population size used to assess triaxial strength character of an entire rock formation and effect of spatial distribution of samples on strength parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Fig. 3.8 | Direct Shear Test Results for the Cobourg Formation | Response to Information Requests | Provides clarification on the sample population used to infer shear strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 3.2.1.2 | Rock Mass Properties | Response to Information Requests | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 3.2.1.3 | Short-term Behaviour | Response to Information Requests | Provides clarification on drill and blast techniques used in the development of the Darlington tunnel | Response to IR-EIS-03-52 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 3.2.2.1 | Intact Rock | Response to Information Requests | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 3.14 | UCS of the Queenston Formation (a) and Georgian Bay Formation Shales (b) | Response to Information Requests | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 3.2.3.1 | Intact Rock | Response to Information Requests | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 3.14 | Summary of Laboratory Geomechanical Properties in MS Units 1 to 5) | Response to Information Requests | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.4 | Hydrogeochemical Data from the Bruce Nuclear Site | Response to Information Requests | Provides a TDS versus depth plot that differentiates groundwaters from porewaters, as presented in Figure 4.54 of the DGSM. Highlights that two independent laboratories were used to determine the major ion chemistries. | Response to IR-EIS-09-442 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 4.6 | TDS versus Depth for DGR Boreholes | Response to Information Requests | Provides a TDS versus depth plot that differentiates groundwaters from porewaters, as presented in Figure 4.54 of the DGSM. Highlights that two independent laboratories were used to determine the major ion chemistries. | Response to IR-EIS-09-442 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.4.1 | Natural Tracers | Response to Information Requests | Provides a summary of the updated geochemical conceptualization in the context of the natural tracers and the natural gases (methane and helium), providing clarification and further justification for the natural barrier hypothesis and the assessment that solute transport is diffusion-dominated in the Ordovician formations | Response to IR-EIS-09-435 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.4.3 | Gas Characterization | Response to Information Requests | Provides a summary of the updated geochemical conceptualization in the context of the natural tracers and the natural gases (methane and helium), providing clarification and further justification for the natural barrier hypothesis and the assessment that solute transport is diffusion-dominated in the Ordovician formations | Response to IR-EIS-09-435 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 4.5 | Illustrative Modelling of the Bruce Nuclear Site Geochemistry | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on confidence in groundwater system behaviour and performance | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| | | | Provides justification for the proposed conceptual model of solute transport | Response to IR-EIS-04-128 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| | | | Provides rationale and justification for the key assumptions and parameters used in the illustrative geochemical modelling of the Bruce nuclear site in the context of testing the solute transport hypotheses (i.e., diffusion-dominated transport and long solute residence times). Provides a summary of the updated geochemical conceptualization for the Bruce nuclear site and key assumptions of the illustrative model. | Response to IR-EIS-09-444 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.5.1.1 | The Ordovician Tracer Profiles: Diffusion-from-above | Response to Information Requests | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification of the terminology, "long time periods", as used in the technical supporting reports in the context of porewater and solute longevity (e.g., $^{18}O$) in the deep groundwater system at the Bruce nuclear site | Response to IR-EIS-09-437 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.6 | Summary | Response to Information Requests | Provides clarification of the terminology, "long time periods", as used in the technical supporting reports in the context of porewater and solute longevity (e.g., $^{18}O$) in the deep groundwater system at the Bruce nuclear site | Response to IR-EIS-09-437 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Ch. 5 | Hydrogeology | Response to Information Requests | Provides clarification as to how the hydraulic parameters used to represent the shale formations in the hydrogeologic modelling were derived<br>Provides justification for the hydrogeologic modelling discretization with respect to the Guelph and Salina A1 Unit aquifers | Response to IR-EIS-04-125 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Sec. 5.3.2 | Permeability | Response to Information Requests | Provides justification for the assessment that the laboratory-determined permeability data at Core Labs are high and overestimate the in-situ rock mass permeabilities at the Bruce nuclear site | Response to IR-EIS-09-417 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.3.5 | Diffusion Properties | Response to Information Requests | Provides discussion of diffusion coefficients determined for the selected tracers (HTO and NaI) | Response to IR-EIS-02-35 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | Provides a summary of the measures of reliability for the $D_e$ values | Response to IR-EIS-09-425 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | Correction | Corrects a typographical error regarding the$D_e$ values measured from DGR drill cores (p.203) | Response to IR-EIS-09-425 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 5.4 | Hydrogeological Modelling | Response to Information Requests | Provides justification for the current assessment that the site is located above an inter-reefal facies association and is not located in close proximity to an unidentified pinnacle reef | Response to IR-EIS-05-211 in OPG Response to IR Package #5 Letter dated Nov.7, 2012 [15] | 793 |
| Sec. 5.4.1 | Conceptual Models | Response to Undertakings | Provides additional information regarding the piezometric surface in the carbonate aquifer beneath the DGR surface facilities | Response to Undertaking TIS 6 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| Sec. 5.4.5 | Regional-scale Model | Response to Information Requests | Provides clarification as to why the hydraulic head in the Precambrian was not measured for the purposes of hydrogeological modelling | Response to IR-EIS-04-100 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification regarding: 1) the confidence in the longevity of the abnormal pressures observed at the site, and 2) conservatism applied in the hydrogeologic and safety assessment modelling scenarios with regard to abnormal pressure evolution | Response to IR-EIS-04-113 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| | | | Provides justification for the parameterization of the Salina A1 Unit, and the Guelph and Cambrian formation aquifers in the hydrogeological modeling | Response to IR-EIS-04-127 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Table 5.8 | Matrix of Regional-scale Simulations Performed | Response to Information Requests | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-04-126 in OPG Response to IR Package #4 Letter dated Aug.27, 2012 [10] | 704 |
| | | | Provides justification for the sufficiency of hydrogeologic modelling with respect to assessing the influence of a laterally continuous permeable unit at the base of the sedimentary sequence | Response to IR-EIS-05-163 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Sec. 5.4.6 | Regional-scale Paleoclimate Modelling | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification regarding: 1) the confidence in the longevity of the abnormal pressures observed at the site, and 2) conservatism applied in the hydrogeologic and safety assessment modelling scenarios with regard to abnormal pressure evolution | Response to IR-EIS-04-113 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| | | | Provides justification for the parameterization of the Salina A1 Unit, and the Guelph and Cambrian formation aquifers in the hydrogeological modelling | Response to IR-EIS-04-127 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Sec. 5.4.8 | Michigan Basin Cross-section Model | Response to Information Requests | Provides clarification on the intended purpose of the Michigan Basin Cross-section analyses in the context of the generation of anomalous pressures | Response to IR-EIS-08-357 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Sec. 5.4.10 | Conclusions from Hydrogeological Modelling Studies | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 5.5 | Summary | Response to Information Requests | Provides a summary of information on the assessment and interpretation of hydraulic formation pressures within the deep groundwater system | Response to IR-EIS-03-74 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification on confidence in groundwater system behaviour and performance | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 6.2.2.1 | Seismicity and Seismic Hazard Assessment | Response to Information Requests | Provides clarification on seismic activity in Bruce region | Response to IR-EIS-03-75 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 6.3 | Repository-induced Disturbances | Response to Information Requests | Provides clarification regarding definitions of EDZ and EdZ | Response to IR-EIS-03-52 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 6.3 | EDZ Extent and Properties Observed from Underground Excavations | Response to Information Requests | Provides clarification on the selection of the drill and blast technique | Response to IR-EIS-03-52 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 6.3.1.2 | Long-term EDZ Behaviour: Self-Sealing | Response to Information Requests | Provides justification that the observed fracturing in the shallow Devonian and upper sections of the Late Silurian strata at the Bruce nuclear site will have no impact on the long-term integrity and safety of the DGR due to the isolated nature of the proposed Ordovician host rock and associated diffusion-dominated porewater system | Response to IR-EIS-08-319 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Sec. 6.4 | Modelling of Repository Evolution | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 6.11 | Repository Layout and Typical Emplacement Room Cross-section | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 6.4.3.4 | Modelling Results | Response to Information Requests | Provides additional information on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 6.4.4 | Emplacement Room Stability: 2D Analysis | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| | | | Provides additional geomechanical analyses to illustrate the influence of overburden removal during glacial events on barrier integrity of the Ordovician shale cap rocks | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |
| Sec. 6.4.4.2 | Numerical Analyses | Response to Information Requests | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 6.4.4.7 | Alternate Numerical Approach | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 6.4.5 | Emplacement Panel: 3D Analysis | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| Fig. 6.38 | Geometry of the Panel-scale Model | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 6.39 | Model Panel Geometry Overlain with Repository Layout | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 6.4.6 | Geomechanical Modelling Results and Discussion | Response to Information Requests | Provides clarification on the effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |

| Geosynthesis (NWMO DGR-TR-2011-11 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 7.2 | Favourable Geological Attributes of the Ordovician Interval | Response to Information Requests | Provides clarification regarding the rationale for the selection of the Cobourg Formation to host the DGR | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of interpreted fracture origin and timing related to new information related to geochronologic dating (U-Pb) of fracture infill calcites occurring in Devonian Strata | Response to IR-EIS-10-484 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |
| Sec. 7.2.2 | Cap Rock Upper Ordovician Shales | Response to Information Requests | Provides clarification on the level of understanding of the origin of under-pressures in the Ordovician sediments and the confidence associated with this understanding | Response to IR-EIS-09-429 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 8 | Summary And Conclusions | Correction | Correction to a typographical error in the text, where pyrite should be stated to be found in "trace to minor amounts" instead of "trace amounts" in the Paleozoic sequence at the Bruce nuclear site | Response to IR-EIS-09-419 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | Response to Information Requests | Clarifies the definitions of "trace" and "minor" in the context of rock chemistry | Response to IR-EIS-09-419 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 1.1 | Conceptual Layout of the DGR below the Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 1.2 | DGR Boreholes, US Boreholes and the Proposed DGR Layout at the Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 3.6 | Core Quality and Natural Fracture Frequency | Response to Information Requests | Provides justification that the observed fracturing in the shallow Devonian and upper sections of the Late Silurian strata at the Bruce nuclear site will have no impact on the long-term integrity and safety of the DGR due to the isolated nature of the proposed Ordovician host rock and associated diffusion-dominated porewater system | Response to IR-EIS-08-319 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Sec. 3.7.4.2 | Hydrocarbons | Response to Information Requests | Provides clarification on assessment of natural resources | Response to IR-EIS-01-24 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides additional information on the assessment of undiscovered oil, gas and mineral resources at the regional, local and site scale and also the uncertainties associated with the assessment | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-24 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 3.8 | Formation Stratigraphic Descriptions | Response to Information Requests | Clarifies the uncertainties in the 3DGF model and summarizes the multiple data sources and processes | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | used to develop the model.<br>Provides new information post licensing submission on stratigraphic observations from DGR-7 and -8. | | |
| Sec. 3.11 | Major Structural and Stratigraphic Discontinuities | Response to Information Requests | Provides justification for the assessment of the influence of major basement features on the occurrence of faults and fractures in the megablock encompassing the DGR site and the current interpretation of the basement and structural geology as described in the 3DGFM | Response to IR-EIS-08-315 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| | | | Clarifies the uncertainties in the 3DGF model and summarizes the multiple data sources and processes used to develop the model.<br>Provides new information post licensing submission on stratigraphic observations from DGR-7 and -8. | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Sec. 3.13.1 | Texaco #6 and DGR-1/DGR-2 | Response to Information Requests | Clarifies the uncertainties in the 3DGF model and summarizes the multiple data sources and processes used to develop the model.<br>Provides new information post licensing submission on stratigraphic observations from DGR-7 and -8. | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |
| Fig. 3.71 | Regional Stratigraphic Cross-Section - Texaco # 6 to Bruce Nuclear Site | Response to Information Requests | Clarifies the uncertainties in the 3DGF model and summarizes the multiple data sources and processes used to develop the model. | Response to IR-EIS-08-314 in OPG Response to IR Package #8 Letter dated Feb.28, 2013 [22] | 902 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides new information post licensing submission on stratigraphic observations from DGR-7 and -8. | | |
| Sec. 3.15 | Confidence Assessment of Geological data and Model | Response to Information Requests | Provides clarification on the measures used to assess confidence in the geologic data and model | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.3.2.2 | Porosity Values | Response to Information Requests | Provides clarification regarding the use of liquid porosity in mass transport predictions | Response to IR-EIS-03-80 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.3.4 | Rock Permeability to Gas and Brine | Response to Information Requests | Provides justification for the assessment that the laboratory-determined permeability data at Core Labs are high and overestimate the in-situ rock mass permeabilities at the Bruce nuclear site | Response to IR-EIS-09-417 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.4.1 | Effective Diffusion Coefficients | Response to Information Requests | Provides information on diffusion coefficient uncertainty | Response to IR-EIS-02-35 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 4.6.5 | Major Ions | Response to Information Requests | Provides rationale for the exclusion of sample data from the presented major ion profiles (i.e., samples are not representative of fluid chemistry due to analytical artifacts) | Response to IR-EIS-09-423 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 4.6.8 | Estimated Porewater pH and Redox Conditions | Response to Information Requests | Provides a reference Eh-pH diagram for iron (aqueous and mineral) speciation.<br>Provides reference to key sections in the DGSM and Geosynthesis where justifications and rationale for the characterization of redox conditions | Response to IR-EIS-09-436 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | at the Bruce nuclear site, using indirect methods, are presented. | | |
| Sec. 4.12 | Formation Pressures and Hydraulic Heads | Response to Information Requests | Provides clarification of methods used to obtain/estimate formation pressures throughout the sedimentary sequence beneath the Bruce nuclear site | Response to IR-EIS-03-74 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.12.2.8 | Summary of Underpressures and Overpressures | Response to Information Requests | Provides information on hydraulic formation pressures observed during site characterization activities | Response to IR-EIS-03-74 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.13 | Hydrostratigraphic Units | Response to Undertakings | Provides additional information regarding the piezometric surface in the carbonate aquifer beneath the DGR surface facilities | Response to Undertaking TIS 6 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| Sec. 4.13.6 | HS Unit 6: Ordovician Limestone Aquiclude | Response to Information Requests | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.16 | Confidence Assessment of Hydrological Data and Model | Response to Information Requests | Provides clarification on the measures used to assess confidence in the hydrogeological data and model | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.16.2 | Liquid and Total Porosities | Response to Information Requests | Provides clarification regarding the use of liquid porosity in mass transport predictions | Response to IR-EIS-03-80 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 4.16.7 | Formation Hydraulic Properties | Response to Information Requests | Provides clarification of evidence for the overall integrity of the Cobourg Formation at the DGR site | Response to IR-EIS-03-72 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 4.16.8 | Formation Pressures and Heads | Response to Information Requests | Provides information on confidence assessment of hydraulic head data | Response to IR-EIS-03-74 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.3 | Local Seismicity | Response to Information Requests | Provides clarification on seismic activity in Bruce region | Response to IR-EIS-03-75 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.4 | In Situ Stresses | Response to Information Requests | Provides additional UCS values from the testing of DGR-8 core samples | Response to IR-EIS-09-422 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 5.5 | MS Unit 1: Devonian and Upper Silurian Dolostones | Response to Information Requests | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.6 | MS Unit 2: Upper and Middle Silurian Shales, Dolostones and Anhydrite | Response to Information Requests | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.7 | MS Unit 3: Lower Silurian and Upper Ordovician Shales and Dolostones | Response to Information Requests | Provides clarification on data used in determining core strength of the Georgian Bay formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.7.1 | Rock Material Geomechanical Characteristics | Response to Information Requests | Provides additional information from DGR-8 for sampling in the Queenston, Georgian Bay and Blue Mountain formations | Response to IR-EIS-09-420 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 5.7.1.1 | Uniaxial Compression | Response to Information Requests | Provides additional UCS values from the testing of DGR-8 core samples | Response to IR-EIS-09-422 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Fig. 5.13 | MS Unit 3: Uniaxial Compression Test Data | Response to Information Requests | Provides additional UCS values from the testing of DGR-8 core samples | Response to IR-EIS-09-422 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 5.7.2.1 | Rock Quality Designation, Fracture Frequency and Fracture Sets | Response to Information Requests | Provides additional interpretation of discontinuity data from DGR-5 and DGR-6 | Response to IR-EIS-09-418 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 5.8 | MS Unit 4: Middle Ordovician Cobourg Formation | Response to Information Requests | Provides clarification on Cobourg Formation core strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on the sample population used to infer shear strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.8.1.1 | Uniaxial Compression | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.8.1.3 | Triaxial Compression | Response to Information Requests | Provides clarification of the sample population size used to assess triaxial strength character of an entire rock formation and effect of spatial distribution of samples on strength parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Fig. 5.26 | MS Unit 4: Brazilian Tests – Indirect Tensile Strength Data | Response to Information Requests | Provides clarification regarding the number of tests required to establish adequate tensile strength | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.8.1.6 | Slake Durability | Response to Information Requests | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.9 | MS Unit 5: Middle Ordovician Sherman Fall and Deeper Formations | Response to Information Requests | Provides clarification on the variance in strength data for the Cobourg Formation | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification of the description and tabulation of Poisson's ratio parameters | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 5.22 | Representative Estimates of Uniaxial Compression Strength Properties of Geomechanical Model Layers | Response to Information Requests | Provides additional UCS values from the testing of DGR-8 core samples | Response to IR-EIS-09-422 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.11 | Confidence Assessment of Geomechanical Data and Model | Response to Information Requests | Provides clarification on the measures used to assess confidence in the geomechanical data and model | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.11.2 | Rock Material Strength Properties | Response to Information Requests | Provides clarification of confidence assessment | Response to IR-EIS-03-68 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on Cobourg Formation attributes supporting the containment and isolation of L&ILW | Response to IR-EIS-03-73 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 6.1 | Summary of Confidence Assessment in Characterization of Descriptive Geological Site Model Properties | Response to Information Requests | Provides clarification on the measures used to assess confidence in the characterization of descriptive geological site model properties | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Table 6.2 | Summary of Confidence Assessment in Characterization of Descriptive Hydrogeological Site Model Properties | Response to Information Requests | Provides clarification on the measures used to assess confidence in the characterization of descriptive hydrogeological site model properties | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Descriptive Geosphere Site Model (NWMO DGR-TR-2011-24 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Table 6.3 | Summary of Confidence Assessment in Characterization of Descriptive Geomechanical Site Model Properties | Response to Information Requests | Provides clarification on the measures used to assess the confidence in the characterization of the descriptive geomechanical site model properties | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 1.2 | The DGR Concept at the Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 2 | Assessment Approach | Correction | Change in para 5 on p.7 | Item #10 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| Sec. 3.6.2 | Conservative Scenarios, Models and Data | Response to Information Requests | Provides clarification on degree of conservatism used in the postclosure safety assessment | Response to IR-EIS-01-20 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 3.6 | Treatment of Uncertainties | Response to Information Requests | Provides clarification on postclosure safety assessment uncertainties (i.e., scenario uncertainty, model uncertainty and data uncertainty) | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 3.8 | Timeframes of Interest | Response to Information Requests | Provides clarification on the alternative means "no institutional control necessary" | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides clarification on how radiological hazards change over time | Response to IR-EIS-04-105 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| | | | Provides clarification on institutional controls | Response to IR-EIS-05-181 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification on institutional controls | Response to IR-EIS-05-194 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification on institutional controls | Response to IR-EIS-08-363 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 4.3 | General Layout of the Final Preliminary Design Repository | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 4.5 | Isometric View of the Final Preliminary Design Repository | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-6 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 4.6 | Emplacement Room Section View – P1 Profile for Bin Type Waste Packages | Design update | Updates emplacement room dimensions | Item #2 (i.e., Fig. 6-17 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 4.7 | Emplacement Room Section View – P3 Profile for Resin Liner Type Waste Packages | Design update | Updates emplacement room dimensions | Item #2 (i.e., Fig. 6-18 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 4.8 | Location of Monolith in Repository Tunnels | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 13-1 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 4.3 | Geologic Setting | Response to Information Requests | Provides justification for neglecting lateral flow in the Cambrian formation and the placement of the lower boundary condition in the 3DS model | Response to IR-EIS-04-129 in OPG Response to IR Package #4 Letter dated Sep.6, 2012 [11] | 725 |
| Sec. 5.1 | The Normal Evolution Scenario | Response to Information Requests | Provides clarification and further analysis of potential effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification and further analysis of potential effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| Sec. 5.1.2 | Description | Response to Information Requests | Provides additional information on microbial activity and reaction with sulphates. Provides additional information on supercriticality and non-ideality effects on gas properties. | Response to IR-EIS-09-404 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 |
| Table 5.3 | External FEPs Potentially Compromising Arguments Relating to the Long-term Safety of the DGR (item 7) | Response to Information Requests | Provides clarification on institutional controls | Response to IR-EIS-05-181 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification on institutional controls | Response to IR-EIS-05-194 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| Fig. 6.3 | Detailed Representation of Potential Transport Pathways in the Repository and Geosphere for the Normal Evolution Scenario | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 6.2.1 | Normal Evolution Scenario | Response to Information Requests | Provides an assessment of the influence lake shoreline changes on the postclosure safety assessment | Response to IR-EIS-01-16 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | Provides clarification on organochlorines and on dose coefficients for credible complex species | Response to IR-EIS-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 6.2.5 | Vertical Fault Scenario | Response to Information Requests | Provides clarification of basis for assumed faults | Response to IR-EIS-02-36 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 |
| Sec. 6.2.1.1 | Waste and Repository | Response to Information Requests | Provides an assessment of the estimated peak gas pressures in panels isolated by closure walls and the impact of closure walls on gas generation and migration | Response to IR-EIS-01-19 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides information on microbial effects | Response to IR-EIS-01-21 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides an assessment of the formation of gas species due to degradation of L&ILW | Response to IR-EIS-01-23 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 6.4 | Mathematical Models and Software Implementation | Response to Information Requests | Provides clarification of the basis for confidence in the models | Response to IR-EIS-04-109 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |
| Sec. 6.5 | Data | Response to Information Requests | Provides information on resin degradation rates | Response to IR-EIS-01-22 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Table 7.1 | Calculation Cases for the Postclosure Safety Assessment | Correction | Change on row "NE-GT5" on p.151 | Item #11 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |
| Sec. 7.2 | Disruptive Scenarios | Response to Information Requests | Provides analysis of consequences of an abandoned repository with no shaft seals | Response to IR-EIS-09-460 in OPG Response to IR Package #9 Letter dated Apr.30, 2013 [27] | 989 |
| Sec. 7.2.1 | Human Intrusion | Response to Information Requests | Provides clarification on the alternative means "no institutional control necessary" | Response to IR-EIS-03-50 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides additional information on calculated doses from human intrusion surface pathway assuming H-3 gas is released as HTO and no institutional control or societal memory | Response to IR-EIS-09-461 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 7.2.4 | Vertical Fault | Response to Information Requests | Provides clarification of basis for assumed faults | Response to IR-EIS-02-36 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | Provides additional analysis of hypothetical vertical faults | Complete response to IR-EIS-02-36 in OPG Letter dated Jun.28, 2012 [7] | 581 |
| | | | Provides additional sensitivity studies on the effects of vertical faults | Response to IR-EIS-08-385 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Fig. 7.27 | Depth of Water in Repository (Non-Water-Limited Cases) | Correction | Change on Fig.7.27, p.195 | Item #8 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 7.3.2.4 | Gas Generation | Response to Undertakings | Provides additional information on the elevated pressure impact on gas generation reactions | Response to Undertaking TIS 16 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 |
| Sec. 7.3.2.6 | Geosphere Transport Properties | Response to Information Requests | Provides information on diffusion coefficient uncertainty | Response to IR-EIS-02-35 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 7.3.2.7 | Shaft Seal Performance | Response to Information Requests | Provides clarification of the shaft seal resaturation behaviour | Response to IR-EIS-04-153 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |
| Sec. 7.3.2.9 | Geosphere Horizontal Flow | Response to Information Requests | Provides concentrations and bounding impacts of radionuclides in the Cambrian Formation including horizontal flow in that formation | Response to IR-EIS-08-397 in OPG Response to IR Package #8 Letter dated Mar.15, 2013 [23] | 915 |
| Sec. 7.3.2.11 | Glaciation | Response to Information Requests | Provides clarification and further analysis of potential effects of glaciation on the repository | Response to IR-EIS-01-17 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides clarification and further analysis of potential effects of glaciation on the repository | Submission of supplementary material to IR Package #1 Response to IR-EIS-01-17 Letter dated Jul.10, 2012 [6] | 606 |
| | | | Provides estimate of the impacts of 300 m of erosion | Response to IR-EIS-10-486 in OPG Response to IR Package #10 Letter dated May 10, 2013 [29] | 1048 |
| Sec. 7.3.5.2 | Backfilled Repository | Response to Undertakings | Provides additional information on the elevated pressure impact on gas generation reactions | Response to Undertaking TIS 16 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.31, 2012 [11] | 715 |

| Postclosure Safety Assessment (NWMO DGR-TR-2011-25 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 7.4 | Confidence Building Measures | Response to Information Requests | Provides clarification on measures used to develop confidence in the postclosure safety assessment and results | Response to IR-EIS-03-92 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 8 | Conclusions | Response to Information Requests | Provides clarification of the uncertainties in chemical reactions and their effects | Response to IR-EIS-04-114 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |
| | | | Provides clarification of the shaft seal resaturation behaviour | Response to IR-EIS-04-153 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |
| Table B.1 | Assessment Modelling Cases for the Normal Evolution | Correction | Change on row "NE-GT5-A" on p.B-2 | Item #12 in OPG Corrections Letter dated Feb.10, 2012 [2] | 335 |

| OPG's DGR for L&ILW Project Requirements (DGR-PDR-00120-0001 R002) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 5.0 | Design Limits | Response to Information Requests | Provides clarification of expansion potential | Response to IR-EIS-04-145 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |
| | | | Provides clarification of expansion potential | Response to IR-EIS-10-494 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |
| Sec. 6.0 | Seismic and Anthropogenic Vibration Requirements | Response to Information Requests | Provides evidence that requirement (for rock burst assessment) has been met | Response to IR-EIS-10-485 in OPG Response to IR Package #10 Letter dated Apr.30, 2013 [28] | 990 |
| Sec. 7.0 | Design Constraints | Response to Information Requests | Provides clarification and additional information about how project requirement 7.2 will be met | Response to IR-LPSC-04-65 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | | Provides clarification and additional information about how project requirement 7.3 will be met | Response to IR-LPSC-04-65 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| | | | Provides clarification and additional information about how project requirement 7.5 will be met | Response to IR-LPSC-04-65 in OPG Response to IR Package #9 Letter dated Mar.28, 2013 [24] | 949 |
| Sec. 19.0 | Regulations, Codes and Standards | Response to Information Requests | Provides additional information on human factors standards, criteria, guidelines applicable to design | Response to IR-LPSC-01-11 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 19.2 | Building and Structures | Response to Information Requests | Updates edition of NBCC | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 19.3 | Fire Protection System | Response to Information Requests | Updates edition of NBCC and National Fire Code | Response to IR-LPSC-01-02 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| OPG's DGR for L&ILW Project Requirements (DGR-PDR-00120-0001 R002) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 19.4 | Pressurized Systems | Response to Information Requests | Changes "CSA N285-08" to "CSA N285-08 with updates" | Response to IR-LPSC-01-04 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 23.0 | Technical References | Response to Information Requests | Updates edition of NBCC for Reference R-5 | Response to IR-LPSC-01-01 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Radon Assessment (NWMO DGR-TR-2011-34 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 2.1 | DGR Underground Layout | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-6 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 2.3 | Ventilation during Construction | Response to Information Requests | Provides clarification on estimated airflow requirements | Response to IR-LPSC-01-35 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Fig. 4.2 | DGR Layout with Ventilation Path of Radon Concentration Analysis | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Table 4.3 | DGR Properties by Location | Design update | Updates tunnels and room dimensions | Item #2 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |

| Maximum Flood Hazard Assessment (NWMO DGR-TR-2011-35 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 2.2 | Preliminary Design of the DGR at Bruce Nuclear Site | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 2.4 | Illustration of DGR Underground Facilities | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 3.3.7 | Coastal Erosion and Sedimentation | Response to Information Requests | Provides clarification on shoreline evolution due to erosion | Response to IR-EIS-01-16 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 4.1.2 | Climate Change and the Future | Response to Information Requests | Provides clarification on shoreline evolution due to global warming | Response to IR-EIS-01-16 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 5.3.3 | Hydraulic Model Development | Response to Information Requests | Provides clarification of basis for contour data | Response to IR-EIS-07-283 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| | | | Provides clarification of preliminary design of stormwater management system | Response to IR-EIS-07-284 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 5.3.6 | Sensitivity Analysis | Response to Information Requests | Provides new information on the sensitivity of maximum flood level to hydrologic and hydraulic parameters | Response to IR-EIS-07-282 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 6.2 | Climate Change and the PMP | Response to Information Requests | Provides more recent information on potential climate change effects on precipitation intensity | Response to IR-EIS-04-143 in OPG Response to IR Package #4 Letter dated Sep.28, 2012 [13] | 759 |

| Preliminary ALARA Assessment (NWMO DGR-TR-2011-36 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 2.1 | Underground DGR Layout | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 4.1 | Regulatory Requirements | Response to Information Requests | Provides clarification on equivalent dose limits considered by the project | Response to IR-LPSC-01-07 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 4.2.3 | Occupational Collective Dose Benchmark | Response to Information Requests | Provides clarification on the purpose and use of collective dose benchmark | Response to IR-LPSC-01-39 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 6 | Occupational Dose Estimates | Response to Information Requests | Provides clarification on worker activities involved in waste package handling | Response to IR-EIS-01-26 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| | | | Provides dose estimates to persons who will transfer waste packages from WWMF to DGR | Response to IR-EIS-01-28 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 7 | Elimination, Abatement and Control Measures | Response to Information Requests | Provides clarification on how individual worker doses are kept ALARA | Response to IR-LPSC-01-44 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Sec. 7.3 | Initial Recommendations for Dose Reduction for the DGR | Response to Information Requests | Provides clarification on current status of dispositions of initial recommendations | Response to IR-LPSC-01-39 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Appendix C | Staffing Models and Detailed Dose Rate Results | Response to Information Requests | Provides clarification on worker activities involved in waste package handling | Response to IR-EIS-01-26 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Preliminary Conventional Safety Assessment (NWMO DGR-TR-2011-37 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 4.2 | Schematic of the DGR | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 4.4 | Operations Activities | Response to Information Requests | Provides clarification on secondary egress during operations | Response to IR-LPSC-03-60 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Fig. 4.3 | Underground Layout of the DGR | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-6 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Table 5.2 | Summary of Site Preparation Conventional Safety Assessment | Response to Information Requests | Provides details and clarification on conventional safety requirements during site preparation | Response to IR-LPSC-01-37 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Table 5.4 | Summary of Construction Conventional Safety Assessment | Response to Information Requests | Provides details and clarification on conventional safety requirements during site preparation | Response to IR-LPSC-01-37 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Geoscientific Verification Plan (NWMO DGR-TR-2011-38 R000)[1] | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 1.1 | Proposed Layout of the DGR below the Bruce Nuclear Site | Design update | Updates configuration of underground services area<br>*Note: This update is captured in Fig. 2.1, Proposed Underground Layout of the DGR, in GVP R001 [32]* | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 2 | Verification Activities | Response to Information Requests | Provides clarification on the scope and timing of geoscientific verification activities<br>*Note: Further clarifications are included in response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32]* | Response to IR-EIS-07-312 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 2.1 | Shaft Sinking | Response to Information Requests | Provides clarification regarding controlled drill and blast techniques for shaft sinking. Furthermore provides information regarding excavation performance monitoring of shaft sinking | Response to IR-LPSC-03-57 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| | | | Provides additional information on the geotechnical investigation and monitoring planning<br>*Note: Further clarifications are included in Sec. 3.2, Shaft Sinking, of GVP R001 and in response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32]* | Response to IR-EIS-07-302 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Sec. 2.1.4.1 | Activity 2 - Geophysics | Response to Information Requests | Provides clarification and justification of the limited geophysical testing planned in the vertical shaft to identify and evaluate the EDZ | Response to IR-EIS-06-266 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |

| Geoscientific Verification Plan (NWMO DGR-TR-2011-38 R000)[1] | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| | | | *Note: Further clarifications are included in Sec. 4.2.4.1, Geophysical Testing, of GVP R001 [32]* | | |
| Sec. 2.1.4.3 | Activity 4- Permeability Measurement | Response to Information Requests | Provides clarification of program for EDZ testing and measurement in the DGR shafts during the construction phase and prior to the emplacement of the shaft seals<br>*Note: Further clarifications are included in Sec. 4.2.4.3, Permeability Measurement, of GVP R001 [32]* | Response to IR-EIS-06-267 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |
| Sec. 2.2 | Lateral Development | Response to Information Requests | Provides clarifications on reliability of site characterization methods during lateral development<br>*Note: Further clarifications are included in Sec. 4.2.3, Geological Characterization, and Sec. 4.3.5.1, Fracture Infill Mineral Studies and Dating, of GVP R001 [32]* | Response to IR-EIS-02-37 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | Provides additional information on the geotechnical investigation and monitoring planning<br>*Note: Further clarifications are included in Sec. 3.3, Lateral Development, of GVP R001 and in response to IR-EIS-12-511 in OPG Response Letter dated Jan.30, 2014 [32]* | Response to IR-EIS-07-302 in OPG Response to IR Package #7 Letter dated Dec.20, 2012 [19] | 843 |
| Fig. 2.5 | Isometric View of Underground DGR Level | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-6 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |

| Geoscientific Verification Plan (NWMO DGR-TR-2011-38 R000)[1] | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 2.6 | DGR Layout Showing Location of Proposed Verification Activities | Design update | Updates configuration of underground services area<br>*Note: This update is captured in Fig. 3.7, Plan View of Underground Repository Showing Location of Verification Activities, in GVP R001 [32]* | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 2.2.8 | DGR Sealing Materials | Response to Information Requests | Provides clarification of shaft seal testing plans<br>*Note: Additional information is provided in Sec. 4.2.6, Sealing Material Tests, and Sec. 4.3.6, DGR Sealing Material Performance Test, of GVP R001 [32]* | Response to IR-EIS-06-268 in OPG Response to IR Package #6 Letter dated Nov.29, 2012 [17] | 823 |

Note:

1 The entire Geoscientific Verification Plan (GVP) was revised to expand on the initial information related to geoscientific activities, as well as to include the geotechnical verification activities in support of design and construction verification. The revised document incorporates also a number of clarifications previously provided by OPG in responses to various IRs, as identified in the table above. Revision 1 of the GVP was submitted with response to IR-EIS-12-511 in OPG Letter dated Jan.30, 2014 [32] (CEEA Registry Item 1792).

| Preliminary Decommissioning Plan (NWMO DGR-TR-2011-39 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Fig. 3.5 | DGR Base Case Layout | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 6-7 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 3.6 | Underground Services Area | Design update | Updates configuration of underground services area | Item #1 in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Fig. 5.2 | Shaft Services Area Showing the Extent of the Concrete Monolith | Design update | Updates configuration of underground services area | Item #1 (i.e., Fig. 13-1 in PSR) in OPG Design Updates Letter dated Feb.10, 2012 [1] | 336 |
| Sec. 5.4.3.1 | Removal of Shaft Infrastructure | Response to Information Requests | Provides clarification on removal of shaft infrastructure | Response to IR-LPSC-03-58 in OPG Response to IR Package #3 Letter dated Jul.9, 2012 [5] | 608 |
| Sec. 5.4.7 | Waste Rock Management Area | Response to Undertakings | Provides clarification on the rationale for the planned top soil cover of 150 mm on the waste rock pile at closure | Response to Undertaking TIS 9 from Jul.18 Technical Information Session #1 in OPG Letter dated Aug.15, 2012 [9] | 692 |
| Sec. 5.9 | Licence to Abandon and Abandonment | Response to Information Requests | Provides clarification on abandonment | Response to IR-EIS-05-181 in OPG Response to IR Package #5 Letter dated Oct.24, 2012 [14] | 776 |
| | | | Provides clarification on abandonment | Response to IR-EIS-08-364 in OPG Response to IR Package #8 Letter dated Feb.14, 2013 [21] | 886 |
| Table 8.1 | Hazardous Materials Arising from the Decommissioning | Response to Information Requests | Provides clarification on waste materials estimated to be generated on yearly basis | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Preliminary Decommissioning Plan (NWMO DGR-TR-2011-39 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Table 8.2 | Waste Materials Arising from Decommissioning | Response to Information Requests | Provides clarification on waste materials to be removed as part of decommissioning and further details on waste materials arising from decommissioning following construction | Response to IR-LPSC-01-46 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |
| Appendix B | Decommissioning Following Construction | Response to Information Requests | Provides clarification on decommissioning activities associated with DGR decommissioning after construction | Response to IR-LPSC-01-47 in OPG Response to IR Package #1 Letter dated Mar.9, 2012 [3] | 363 |

| Deep Geologic Repository Project, Management System (00216-CHAR-0001 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Section 1.5.2 | Safety Culture | Response to Information Requests | Provides additional information on OPG's oversight of human performance/ safety culture | Response to IR-LPSC-02-48 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | Provides clarification on OPG's oversight related to safety culture | Response to IR-LPSC-02-50 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 1.6 | Information Management | Response to Information Requests | Provides clarification on maintenance of records | Response to IR-LPSC-02-52 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 1.8.1 | Design | Response to Information Requests | Provides clarifications on OPG's oversight activities on NWMO's management system | Response to IR-LPSC-02-49 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| | | | | Response to IR-LPSC-02-54 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Appendix B | Correlation of CSA N286-05 Requirements to OPG Management System for Oversight DGR Project | Response to Information Requests | Provides additional information on OPG's oversight of human performance/ safety culture | Response to IR-LPSC-02-48 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |

| Design and Construction Phase Management System (OPG's L&ILW DGR) (DGR-PD-EN-0001 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 2 | Project Management Approach | Response to Information Requests | Provides additional information on NWMO's human performance management | Response to IR-LPSC-02-48 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 3 | Project Organization During the Design and Construction Phase | Response to Information Requests | Provides additional information on NWMO's human performance management | Response to IR-LPSC-02-48 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 4.1.2.3 | Health and Safety Incident Reporting | Response to Information Requests | Provides clarification on requirements for incident investigations | Response to IR-LPSC-02-51 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 4.1.3.3 | Nonconformance and Corrective and Preventative Action, NWMO-PROC-QA-0001 | Response to Information Requests | Provides clarification on requirements for incident investigations | Response to IR-LPSC-02-51 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 4.2.4 | DGR Project Document Management Control, DGR-PLAN-00121-1002 | Response to Information Requests | Provides clarification on maintenance of records | Response to IR-LPSC-02-52 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |
| Sec. 4.2.5.1 | Procurement and Contracts Management Plan, DGR-PLAN-00800-1001 | Response to Information Requests | Provides clarification on the content of the Procurement and Contracts Management Plan | Response to IR-LPSC-02-53 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |

| Design and Construction Phase Management System (OPG's L&ILW DGR) (DGR-PD-EN-0001 R000) | | | | | |
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| **Section/Figure/Table in Document** | | **Information Type** | **Scope of New Information** | **Information Source** | **CEAA Registry Item** |
| Sec. 4.2.7.5 | Construction Quality Assurance Plan, DGR-PLAN-01916-1001 | Response to Information Requests | Provides details on the content of the Field Quality Inspection Manual | Response to IR-LPSC-02-53 in OPG Response to IR Package #2 Letter dated Jun.1, 2012 [4] | 523 |