

**Public Hearing
List of Undertakings
September 18, 2014**

Undertaking Number	Date	Directed to:	Undertaking	Expected Completion Date	CEARIS #
1	Sept 17, 2013	CNSC	List all of the "minor deviations" within the safety and control areas assigned the "satisfactory" compliance rating by CNSC in PMD 13-P1.2.	Sept 20, 2013	1582
2	Sept 17, 2013	Mayor David Inglis	Provide the methodology and results of the poll conducted for the Municipality of Brockton and other municipalities to gauge support for the DGR Project.	Sept 20, 2013	1591
3	Sept 17, 2013	OPG	Provide written confirmation that the adjacent municipalities named in the hosting agreement are in support the DGR hosting agreement.	Sept 23, 2013	1589
4	Sept 17, 2013	Mayor Mike Smith	Minutes recording any motions or resolutions passed by the Saugeen Shores Town Council in support of the DGR Project.	Sept 23, 2013	1577
5	Sept 17, 2013	OPG	Provide information on the nature of process used by OPG to derive the amounts paid to each of the municipalities in the Hosting Agreement. Provide information on how OPG determined which municipalities should be approached regarding inclusion in the Hosting Agreement.	Sept 20, 2013	1583
6	Sept 18, 2013	CNSC	Provide additional information regarding CNSC's requirements for waste rock characterization and monitoring programs.	Sep 27, 2013	1629

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7	Sept 18, 2013	Ontario Ministry of Natural Resources	Provide park use statistics, for both campers and day users in Inverhuron Provincial Park, as far back as reliable data is available.	Sept 26, 2013	1614
8	Sept 18, 2013	Ontario Ministry of Natural Resources	Provide the annual number of noise complaints from campers at Inverhuron Provincial Park, directly related to noise originating at the Bruce site, as far back as reliable data is available.	Sept 26, 2013	1614
9	Sept 18, 2013	Ontario Ministry of Natural Resources	Provide MNR's assessment of the effects of the Project on the use of MacGregor Point Provincial Park.	Oct 3, 2013	1614
10	Sept 18, 2013	Ontario Ministry of Northern Development and Mines	Provide information on what would constitute a "mine" under the Mining Act, should waste rock from the DGR excavation be considered for sale as aggregate or cement stone.	Sept 26, 2013	1642
11	Sept 18, 2013	Ontario Ministry of Northern Development and Mines	Provide an estimate of the economic value of aggregate and cement stone from the DGR excavation.	Sept 26, 2013	1641
12	Sept 19, 2013	OPG	Provide a detailed description as possible of the nature of decommissioning waste with emphasis on the proportion of low and intermediate level wastes. Within the intermediate level, provide the proportion containing long-lived radionuclides. Provide a description of any differences between current refurbishment waste and future decommissioning waste.	Sept 27, 2013	1625

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			<p>Provide a comparison of the characteristics of decommissioning waste with the characteristics of the current waste inventory at the WWMF.</p> <p>Highlight any considerations that may make decommissioning waste materially different from the waste currently stored at the WWMF.</p> <p>Describe any implications of including decommissioning waste to the long term safety case of the DGR.</p>		
13	Sept 19, 2013	OPG	Provide information on the possibility of liquefaction of a 70% bentonite, 30% sand mixture as a result of ground shaking during a severe seismic event.	Sept 27, 2013	1595
14	Sept 19, 2013	OPG	<p>Provide the likelihood that the predicted dose to non-human biota, under a severe shaft-fail scenario and human intrusion scenario, would meet the criteria for non-human biota.</p> <p>Effect on biota from contaminated saline waters from the Guelph and Salina, should they reach the surface.</p>	Sept 26, 2013	1613
15	Sept 19, 2013	CNSC	Revise the recommendation regarding the Geoscience Verification Program with respect to the physical degradation of the bentonite seal in the long-term.	Sept 23, 2013	1596
16	Sept 19, 2013	CNSC	Provide information on international practices regarding periods of time of institutional control. Provide information regarding the IAEA working group studying the human intrusion scenario for deep geologic repositories.	Sept 25, 2013	1608
17	Sept 19, 2013	OPG	Provide the source of the information regarding tritium levels contained in Ms. Spletstoesser's presentation to the Panel.	Sept 20, 2013	1584

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18	Sept 20, 2013	CNSC	Provide additional available research data related to the modelling of anomalous pressure.	Oct 2, 2013	1651
19	Sept 20, 2013	OPG	Provide a lay-language guide to diffusion, including contrasting with advection. Provide a description of diffusion in solids, liquids and gasses. Provide an explanation of the primary physical and chemical conditions that drive diffusion. Provide a list of reasons why the DGR is expected to be diffusion dominated.	Sept 27, 2013	1622
20	Sept 20, 2013	OPG	Provide a lay-language guide to limestone, including a description of the conditions required for the formation of cavities in limestone, and an explanation of term "Karst".	Sept 25, 2013	1617
21	Sept 20, 2013	Gordon Edwards	Provide examples of rolling stewardship beyond one or two generations. Examples need not be limited to the management of nuclear waste.	Oct 30, 2013 (extended)	1742
22	Sept 20, 2013	OPG	Provide the context on Dr. Syke's statement as it appears on page 6 of the written submission from The Provincial Council of Women of Ontario (PMD 13-P1.92)	Sept 23, 2013	1594
23	Sept, 23 2013	OPG	Provide the relative amounts of non-radioactive vs. radioactive constituents in incinerator ash, with emphasis on trace amounts of metals.	Sept 23, 2013	1597
24	Sept 23, 2013	Pete Roche	Indicate which waste types require isolation in order to meet post-closure performance requirements, as referenced on Page 4 of PMD 13-P1.170.	Sept 24, 2013	1607

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25	Sept 23, 2013	CNSC	Provide information on the operational specifications and conditions of the incinerator at the Western Waste Management Facility (WWMF), the efficiency of the filtration system, a description of the emissions monitoring program and the results of the monitoring program.	Oct 4, 2013	1649
26	Sept 24, 2013	OPG	Provide information on whether OPG considered a spill of highly saline mine water that is released to the terrestrial and aquatic environment. What contingency plans are in place for such a scenario?	Sept 25, 2013	1615
27	Sept 24, 2013	Ontario Ministry of Labour	Provide a clear map indicating the locations of the radiation monitoring stations in the Bruce Monitoring Network.	Oct 8, 2013	1688
28	Sept 24, 2013	Ontario Ministry of Labour	Provide the most recent specific data available on tritium concentrations in milk collected in the project area. Provide data in the form of a clearly marked graphic, including minimum and maximum concentrations.	Oct 4, 2013	1670
29	Sept 24, 2013	Ontario Ministry of Community Safety and Correctional Services	Provide more information on how the Office of the Fire Marshal and Emergency Management has engaged the Saugeen First Nation in the emergency planning and notification process for the DGR.	Oct 4, 2013	1683
30	Sept 24, 2013	CNSC	Protection action levels for radionuclides in foodstuffs in the context of an emergency, based on Health Canada guidance.	Oct 4, 2013	1650
31	Sept 24, 2013	Canadian Voice of Women for Peace	Provide more information on the Hardened Onsite Storage (HOSS) management approach with emphasis on the applicability of the approach across a range of site conditions.	Oct 2, 2013	1648

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32	Sept 24, 2013	Canadian Voice of Women for Peace	Provide references to support the oral intervention by the Canadian Voice of Women for Peace. Specifically indicate which reference supports the statements regarding a 1991 OPG transportation accident.	Oct 2, 2013	1634
33	Sept 25, 2013	OPG	Clarify if any polls were conducted in the time period leading up to the hosting agreement, and if so, provide any available relevant information.	Oct 3, 2013	1623
34	Sept 25, 2013	OPG	In collaboration with the Ontario Ministry of Natural Resources, provide an estimate of the attendance at both Inverhuron and MacGregor Point Provincial Parks on the days on which OPG surveyed the park users.	Oct 3, 2013	1639
35	Sept 25, 2013	OPG	Provide the most recent site leveling and grading plan for the DGR project.	Sept 27, 2013	1624
36	Sept 25, 2013	Environment Canada	Provide examples of best management practices for mitigation of air emissions, with emphasis on particulates.	Sep 26, 2013	1630
37	Sept 26, 2013	Environment Canada	Provide data to demonstrate the effectiveness of the recommended fencing as a mitigation measure for turtles and snakes.	Oct 1, 2013	1636
38	Sept 26, 2013	OPG	Provide information on the method used to derive the effects thresholds in the assessment of terrestrial species. Were the thresholds selected based on the population level or sub-population level, and why? Were no effect, lowest observed effect or other thresholds selected, and why?	Oct 1, 2013	1643

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39	Sept 27, 2013	CNSC	Provide the recently-published <i>Radiation Exposure and Cancer Incidence (1990 to 2008) Around Nuclear Power Plants in Ontario, Canada</i> study.	Sept 30, 2013	1632
40	Sept 27, 2013	OPG	Explain the difference between the health conditions used in the human health assessment and those described on the Grey Bruce Health Unit website, such as heart disease and stroke.	Oct 4, 2013	1667
41	Sept 30, 2013	OPG	Provide information on the differential between the forces required for fracture initiation vs. fracture propagation in the Cambrian formation.	Oct 7, 2013	1673
42	Sept 30, 2013	OPG	Provide any studies to differentiate between diagenetic and hydrothermic dolomite in the DGR cores.	Oct 4, 2013	1662
43	Sept 30, 2013	CNSC	Provide additional information on tritium concentrations in drinking water supplies over a longer time frame than 2009 to 2012, to provide a greater understanding of the long-term trend and reasons for the trend.	Oct 7, 2013	1681
44	Sept 30, 2013	OPG	Provide a list of open houses conducted in Saugeen Shores, including the attendance at each. If available, provide examples of input received during the open houses and OPG's response to that input.	Oct 4, 2013	1669
45	Sept 30, 2013	OPG	Provide resolution of issues around if there was an agreement as noted in the November 13, 2004 Owen Sound Sun Times article on page 102 of 900 in Volume 2 of the DGR Environmental Impact Statement.	Oct 2, 2013	1656

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46	Oct 1, 2013	Fisheries and Oceans Canada	Provide general information from the invasive species group regarding opportunistic measures that could be taken by OPG as additional mitigation to discourage invasive species, specifically round goby, at the Bruce site.	Oct 8, 2013	1693
47	Oct 1, 2013	CNSC	Provide a detailed comparison of water quality predictions by OPG, those used as a basis for the CNSC risk assessment and those used by Environment Canada, with emphasis on whether predictions are pre or post mitigation. If post mitigation, state which mitigation is used and the assumed effectiveness. Work with Environment Canada to provide a joint recommendation to address compliance with section 36(3) of the Fisheries Act.	Oct 11, 2013	1703
48	Oct 1, 2013	Saugeen Valley Conservation Authority	Provide anecdotal evidence of complaints related to the existing Bruce site or the proposed DGR received from campers at the Bruce Dale Conservation Area, the Saugeen Bluffs Conservation Area and the Durham Conservation area.	Oct 9, 2013	1680
49	Oct 1, 2013	OPG	Provide an assessment of the presence of hydrocarbons in the waste rock pile, including mobilization of hydrocarbons and possible interaction with metals, for example by chelation.	Oct 10, 2013	1701
50	Oct 2, 2013	OPG	Provide a list, including dates, of all interactions between OPG and the public that took place prior to the completion of the hosting agreement in October 2004. Provide a description of the interactions, and if available, the attendance numbers and the type of interaction.	Oct 18, 2013	1718

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Undertaking Number	Date	Directed to:	Undertaking	Expected Completion Date	CEARIS #
51	Oct 2, 2013	Ontario Ministry of Natural Resources	<p>Provide the results of any surveys of near shore habitat conducted by the Ministry, including MacPherson Bay.</p> <p>Provide data that may assist in the evaluation of the relative quality of habitat in MacPherson Bay compared with other nearshore habitats.</p>	Oct 16, 2013	1689 & 1690
52	Oct 3, 2013	Peter Duinker	<p><u>Provide guidance regarding how the cumulative effects assessment could have included an ecosystem-based conceptual model showing linkages among existing and future activities and from the activities to possible effects on ecological structure and function. The conceptual model could be used, in turn, to assist in the identification of VECs that would have the best potential to indicate interactive effects, including synergistic, additive or antagonistic effects of multiple stressors as well as indirect and delayed effects</u></p> <p><u>Note:</u> This undertaking was revised at the request of the Chair</p>	Oct 15, 2013	1710
53	Oct 3, 2013	CNSC	<p><u>Provide the results of CNSC staff's evaluation of significance in sufficient detail to understand key features of the methodology and the criteria used to come to conclusions. For example (but not limited to), how were risk quotients determined for VECs with little or no thresholds available in the literature.</u></p>	Oct 24, 2013	1727
54	Oct 3, 2013	Canadian Environmental Law Association	<p><u>Provide examples of suggested methodologies for estimating costs of perpetual care for very long timeframes.</u></p>	Oct 25, 2013	1734

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55	Oct 4, 2013	CNSC	Provide more information on the design basis for buildings and containers for L&IL waste and the buildings and containers for used fuel at the WWMF, in terms of resistance to hurricanes, tornadoes or other natural events so that the Panel can compare the relative risks of the DGR with the status quo.	Oct 10, 2013	1702
56	Oct 5, 2013	OPG	Provide details of the membership, the terms of reference, meeting frequency, and methods used by OPG to respond to input from both the Darlington and Pickering Community Advisory Councils.	Oct 9, 2013	1691
57	Oct 7, 2013	Health Canada	Provide information on the primary causes of disease and death among Aboriginal people in Grey and Bruce Counties. Provide information on the relative importance of radiation exposure among health stressors to Aboriginal people in Grey and Bruce Counties.	Oct 25, 2013	1735
58	Oct 7, 2013	CNSC	Provide a map illustrating the receptor locations used in estimating the dose to the general public in the Radiological Environmental Monitoring Program (REMP) from the Bruce site. Include the locations of background receptors.	Oct 10, 2013	1700
59	Oct 8, 2013	Ontario Ministry of Natural Resources	Provide information on the possible causes of the decline in the number of campers at Inverhuron Provincial Park over the past three years. Provide an explanation of the fluctuation in camping numbers over the past decade.	Nov 1, 2013	1744

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60	Oct 8, 2013	Charlene Randle-Clayton	Provide a review of the Property Value Protection Plan included in the DGR Hosting Agreement.	Dec 16, 2014	1790
61	Oct 10, 2013	Ontario Ministry of Transportation	Provide information regarding enforcement actions involving the class that includes radiological materials in Ontario	Oct 18, 2013	1708
62	Oct 10, 2013	Ontario Ministry of Tourism, Culture and Sport	Has the Ontario Ministry of Tourism, Culture and Sport considered the possible effects of stigma on tourism in the Local and Regional study areas as result of the proposed DGR.	Oct 18, 2013	1720
63	Oct 10, 2013	Ontario Ministry of Tourism, Culture and Sport	Provided the closest cultural heritage resource to the proposed DGR site, not including the Aboriginal burial site included in the EIS. Provide information that would assist the Panel in assessing the effects of dust, noise and visual impact on the enjoyment of the resource.	Oct 18, 2013	1720
64	Oct 10, 2013	Ontario Ministry of Tourism, Culture and Sport	Provide the most recent statistics related to the number of visitors at the Bruce Information Centre, and confirm whether the Information Centre is the top tourist draw in the project area.	Oct 18, 2013	1720
65	Oct 10, 2013	Mayor Larry Kraemer	Confirm whether the Municipality of Kincardine included information about the proposed DGR in tax bills, during the period dating back to 2005.	Oct 30, 2013	1745

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66	Oct 10, 2013	Mayor Larry Kraemer	Provide information on how the Municipality of Kincardine determined the number of ballots to be sent to each household. Confirm whether ballots were provided for each eligible voter.	Oct 30, 2013	1745
67	Oct 28, 2013	CNSC	Provide a summary table of the hold points contained in the Licence Condition Handbook.	Oct 30, 2013	1739
68	Oct 28, 2013	OPG	Provide information regarding the legal requirements for ensuring that no mining development occurs near the border of the DGR footprint, including the possible future expanded footprint of the DGR.	Oct 30, 2013	1743
69	Oct 29, 2013	CNSC	Identify the list of baseline data found to be insufficient to support the design of an EA Follow-up Monitoring Program using CSA standard N288.4	Oct 30, 2013	1740
70	Oct 29, 2013	OPG	Provide information on whether any additional indications of hydrocarbon presence were observed in boreholes DGR 7 and 8 to corroborate the hydrocarbon seeps reported in boreholes DGR 1 through 6. Confirm whether hydrocarbon occurrence is persistent at specific depths and across the repository horizons sampled.	Oct 30, 2013	See Transcript Vol. 25, pg. 22

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71	Oct 29, 2013	Environment Canada	Provide suggestions or recommendations regarding monitoring of habitat suitability for all listed species identified on the DGR Project site.	Nov 6, 2013	1752
72	Sept 15, 2014	OPG	Tie the corporate sustainability criteria measures to criteria used in the assessment of significance (ref. to IR EIS-03-44). To what extent does OPG go from general corporate policy issue measurements down to the specifics of the Environmental Impact Statement?	Sept 17, 2014	2132
73	Sept 15, 2104	Canadian Environmental Law Association	Provide information on sustainability assessments completed by previous joint review panels, under the Canadian Environmental Assessment Act.	Sept 17, 2014	2127
74	Sept 16, 2014	OPG	Perform calculations for the consequences of doses to non-human biota from decommissioning waste, for the normal evolution scenario and for the human intrusion and severe shaft failure disruption scenarios. Confirm whether the calculated doses are below the threshold for environmental effects.	Sept 18, 2014	2133