

## REQUEST FOR RULING

To the Joint Review Panel (“JRP”) regarding Ontario Power Generation (“OPG”) Application for a Deep Geological Repository for Low and Intermediate Waste (“DGR”):

**THE UNDERSIGNED** registered oral intervenors hereby request a ruling pursuant to the Hearing Directions of the Panel with respect to the following:

**WHEREAS** the project description for the DGR as set out at page 1-10 in OPG’s Submission of Environmental Impact Statement for a DGR for Low and Intermediate Level Wastes (“L&ILW”) is as follows;

The **DGR Project will receive L&ILW currently stored in interim facilities at the WWMF, as well as that produced from OPG-owned or operated nuclear generating stations.** The WWMF will continue to receive and volume reduce L&ILW before transferring it to the DGR. Low level waste (LLW) consists of industrial items and materials such as clothing, tools, equipment, and occasional large objects such as heat exchangers, which have become contaminated with low levels of radioactivity. Intermediate level waste (ILW) consists primarily of used reactor components, including those from refurbishment, as well as resins and filters used to clean the reactor water circuits. The capacity of the DGR is approximately 200,000 m<sup>3</sup> of waste (emplaced volume). [emphasis added]

**AND WHEREAS** the Canadian Nuclear Safety Commission (“CNSC”) has classified radioactive waste into the following three categories:

In Canada, low-level radioactive waste (LLRW) contains material with radionuclide content that is above established clearance levels and exemption quantities but generally has limited amounts of long-lived activity. LLRW generally does not require significant shielding during handling and interim storage. Shielding refers to a barrier between stored waste and nuclear workers, such as a concrete wall or protective clothing.

Intermediate-level radioactive waste (ILRW) typically shows levels of penetrating radiation sufficient enough to require shielding during handling and interim storage.

**High-level radioactive waste is used (irradiated) nuclear fuel and/or waste that generates significant heat.** ... At present, there are currently no long-term management facilities for high-level nuclear fuel waste

anywhere in the world. All used nuclear fuel in Canada is currently held on site in interim storage facilities, which are safe, secure and environmentally sound. Finding solutions for the long-term management of used nuclear fuel is the responsibility of the NWMO. [emphasis added]

<http://nuclearsafety.gc.ca/eng/about/regulated/radioactivewaste/how.cfm#C3>

**AND WHEREAS** Canada is a member of the International Atomic Energy Agency (“IAEA”);

**AND WHEREAS** the IAEA provides the following classification of low level waste, intermediate level waste and high level waste at pages 5 and 6 in the IAEA Safety Standards, for protecting people and the environment, Classification of Radioactive Waste, General Safety Guide No. GSG-1:

(4) Low level waste (LLW): Waste that is above clearance levels, but with limited amounts of long lived radionuclides. Such waste requires robust isolation and containment for periods of up to a few hundred years and is suitable for disposal in engineered near surface facilities. This class covers a very broad range of waste. LLW may include short lived radionuclides at high levels of activity concentration, and also long lived radionuclides, but only at relatively low levels of activity concentration.

(5) Intermediate level waste (ILW): Waste that, because of its content, particularly of long lived radionuclides, requires a greater degree of containment and isolation than that provided by near surface disposal. However, ILW needs no provision, or only limited provision, for heat dissipation during its storage and disposal. ILW may contain long lived radionuclides, in particular, alpha emitting radionuclides that will not decay to a level of activity concentration acceptable for near surface disposal during the time for which institutional controls can be relied upon. Therefore, waste in this class requires disposal at greater depths, of the order of tens of metres to a few hundred metres.

(6) High level waste (HLW): Waste with levels of activity concentration **high enough to generate significant quantities of heat by radioactive decay process or waste with large amounts of long lived radionuclides** that need to be considered in the design of a disposal facility for such waste. Disposal in deep, stable geological formations usually several hundred metres or more below the surface is the generally recognized option for disposal of HLW.

**AND WHEREAS** OPG has posted the following description of the DGR project and its purpose at [http://www.opg.com/power/nuclear/refurbishment/dn\\_wastemanagement.asp](http://www.opg.com/power/nuclear/refurbishment/dn_wastemanagement.asp):

OPG - with the support of Bruce County municipalities - is proposing to construct and operate a Deep Geologic Repository (DGR) for the long-term management of low and intermediate level nuclear waste.

...

**Only low and intermediate level waste from the Pickering, Darlington and Bruce nuclear generating stations will be accepted for storage in the DGR.** Used fuel will not be stored in the DGR. [emphasis added]

**AND WHEREAS** the Nuclear Fuel Waste Act defines nuclear fuel waste as irradiated fuel bundles removed from a commercial or research nuclear fission reactor;

**AND WHEREAS** the Nuclear Waste Management Organization (“NWMO”) is established pursuant to the provisions of section 6 of the Nuclear Fuel Waste Act and whose purpose under the Act is to propose to the Government of Canada approaches for the management of nuclear fuel waste;

**AND WHEREAS** the NWMO has the responsibility for the management of highly radioactive waste that is used (irradiated) nuclear fuel waste but not other high level waste that also generates a significant amount of heat that is also classified by the CNSC as high level nuclear waste;

**AND WHEREAS** the Review Panel Agreement does not define low, intermediate or high level nuclear waste;

**AND WHEREAS** the Environmental Impact Statement defines low and intermediate level waste differently from the following definitions used by the CNSC and IAEA:

Low-Level Waste (LLW) – radioactive waste in which the concentration or quantity of radionuclides is above the clearance levels established by the regulatory body (CNSC), and which contains primarily short-lived radionuclides (half-lives shorter than or equal to 30 years)

Intermediate-Level Waste (ILW) – radioactive non-fuel waste, containing significant quantities of long-lived radionuclides (generally refers to half-lives greater than 30 years).

**AND WHEREAS** the Environmental Impact Statement at page 2-84, Table 2.6.2-1 in responding to questions from speaking engagements statement that there will be little heat from the waste deposited in the DGR;

Q: Is there heat from the waste?

**A. There is little heat from the waste**

**AND WHEREAS** on Day 2 of the JRP hearing, Tuesday, September 17, 2013, JRP Member Dr. Muecke raised the following question regarding OPG's categorization of the waste being deposited in the DGR:

QUESTIONS BY THE PANEL

Member Muecke: My question goes to Ms. Swami, and I go back right to fundamentals here.

We have – you categorize or OPG categorizes three types of waste; low level, intermediate level and high level. And if you look at the main criteria for doing so, it involves shielding, not required for low level waste but for intermediate and high level waste. It involves – the differences between them involves the presence of long-lived radionuclides so that low level waste, for instance, most of the activity ceases after 300 years.

It involves differences in the half-life of the radionuclides involved with the long half-lives in intermediate and high level wastes.

**If I take these three and I ask you to group two which shows the greatest similarity, which ones would you choose?**

MS. SWAMI: Laurie Swami, for the record. That's a very interesting question, ...Dr. Gierszewski is going to respond to your questions ...

DR. GIERSZENWSKI: Paul Gierszenwski, for the record. So I think that there are different aspects that you could use to group them and I think it would then depend on how you choose what aspects that you wish to emphasize to do so.

**If you wish to look at the long-lived radionuclide component, you would group ILW with HLW.** If you wish – to look at, perhaps general handle-ability or lack of heat generation then you could group the low levels with the – intermediate level wastes.

MEMBER MUECKE: Well, I think you're trying to avoid my question here because the only difference that you have point out where you would

group them into intermediate and low level would be as opposed to high level would be heat generation.

In terms of long-lived radionuclides, how would you group them and – or what other criteria would you use? I mean, the criteria that I mentioned, I think are the ones that are used by CSA standards, for instance, and internationally.

DR. GIERSZEWSKI: .. **So again, if you wish to use the long-lived – the length of the activity if you choose to use that as a criteria, and started using that as a criteria, which two are the most similar, then you would group ILW and HLW.** [emphasis added]

**AND WHEREAS** on September 21, 2013, OPG made the following response in DGR Hearing Undertaking No. 22 to the report written by Dr. J. F. Sykes entitled “Characterizing the Geosphere in High-Level Radioactive Waste Management” (Sykes, 2003):

“Shale formations also have the potential for a HLRWM facility ...”

In terms of OPG’s proposed Deep Geological Repository the site-specific investigations described in the DGR Geosynthesis (NWMO, 2011), several important points with regard to the above passage are:

- The report addresses used fuel repositories and not LLW and ILW. LLW and ILW **will not have a temperature impact on shale.**

In summary, since there is **no temperature impact from the LLW and ILW**, since there will be no change in the moisture content of the Ordovician shale by the development of the DGR, ...

**AND WHEREAS** on Saturday, September 21, 2013, Mr. Mann put the following to the JRP seeking confirmation that high-level nuclear waste will not be stored in this DGR:

MR. MANN: Yes, thank you. I appreciate it Doctor.

I just want some – my second question for your leave is can OPG and CNSC guarantee that high-level nuclear waste will never be stored in the DGR?

THE CHAIRPERSON: OPG?

MS. SWAMI: Laurie, Swami, for the record. The low- and intermediate-level waste DGR that is proposed on this project is for low- and intermediate-level waste and **not for nuclear fuel waste.**

THE CHAIRPERSON: CNSC?

MR. HOWARD: Don Howard, for the record. Basically, there is a regulatory process in place. My apologies. There is a regulatory process in place. **Applications would have to be submitted and considered and we would have to look at the merits of that application.** [emphasis added]

**AND WHEREAS** on September 27, 2013, OPG made the following response in DGR Hearing Undertaking No. 12:

The first station to be decommissioned will be Pickering, starting in the mid 2040's and continuing over about 10 years. The waste volume from decommissioning Pickering is approximately 45,000 m<sup>3</sup>. The remaining stations are assumed to be completely dismantled by the late 2080's. The total decommissioning waste volume for all OPG owned and operated stations and the associated nuclear waste storage facilities is currently estimated to be approximately 135,000 m<sup>3</sup> emplaced package volume. No reduction in volume is assumed in these estimates.

It is expected that future volume reduction, decontamination and recycling technologies will reduce this estimated volume.

The majority of this waste will be LLW. About 10 to 20% is estimated to be ILW. **All of the ILW contains significant amounts of radionuclides with half-lives longer than 30 years. Pressure tubes and calandria tubes contain Nb-94 (20,300 year half-life) and Zr-93 (1.5 million year half-life), while the stainless steel components contain Ni-63 (100 year half-life)** which is similar to the wastes arising from refurbishment activities. [emphasis added]

**AND WHEREAS** the definition of the DGR Project, as set out in the Agreement between the federal Minister of the Environment and Canadian Nuclear Safety Commission to establish a Joint Review Panel for the review and licensing of the Deep Geological **Repository** Project proposed by Ontario Power Generation Inc. within the Municipality of Kincardine, Ontario ("Review Panel Agreement") means:

the preparation of a site for, and the construction, operation decommissioning and abandonment of, a deep geological repository on the existing Bruce Nuclear Site within the Municipality of Kincardine, Ontario to store **low- and intermediate-level radioactive waste ...** [emphasis added]

**AND WHEREAS** the Appendix to the Review Panel Agreement, Part I – Project Description states;

The long-term management of used nuclear fuel under the mandate of the Nuclear Waste Management Organization is not within the scope of this project.

**AND WHEREAS** OPG in its Information Request Response EIS-03-59 responding to the question seeking the activity concentration range of the ILW to be emplaced in the DGR stated:

OPG Response:

(a) Confirmation of Waste Type

CSA Standard N292.3 (CSA 2008) has the following descriptions of LLW and ILW:

“Low-level radioactive waste (LLW) contains material with radionuclide content above established clearance levels and exemption quantities, but generally has limited amounts of long-lived activity. LLW requires isolation and containment for periods of up to a few hundred years. LLW does not generally require significant shielding during handling and interim storage.”

“Intermediate-level radioactive waste (ILW) typically exhibits levels of penetrating radiation sufficient to require shielding during handling and interim storage. ILW generally requires little or no heat dissipation during its handling, transportation, and long-term management. **However, because of its total radioactivity level, ILW might require consideration of the implications of short-term heat generation.**”

OPG’s use of these terms at its Western Waste Management Facility (WWMF) is consistent with the CSA descriptions, with the key differentiating aspect being the need for shielding. [emphasis added]

**AND WHEREAS** OPG in its Information Request Response EIS-03-336 OPG recognized that it is in a minority position internationally when it proposes to store long-lived radioactive wastes with short lived ones. OPG acknowledges that where the wastes are classified on the basis of radioactivity, short-lived wastes are stored separately from long-lived wastes and, except for Switzerland; all of them store this waste in a near surface repository;

OPG Response:

International Practice

Practices vary between countries. Countries with surface or near-surface repositories usually make a distinction between short-lived wastes and long-lived wastes, the purpose of which is to exclude long-lived wastes from these repositories. Countries with only deep repositories (or plans for such) may or may not make a distinction. Examples are given below.

....

OPG ILW

Approximately 80% of the packaged volume coming to the DGR will contain LLW, and 20% will contain ILW.

**OPG does not have separate categories for short-lived and long-lived ILW.** However, as a simple estimate, the US Class C waste criteria can be considered as a basis for classification. In particular, US 10 CFR 61.55 clause (3) provides concentrations of long-lived radionuclides for classification as Class C or as Greater-than-Class C wastes (USNRC 2012). These 10 CFR 61.55 criteria were compared with the as-received concentrations for ILW waste streams as given in the OPG Reference Inventory (OPG 2010). The US criterion considers the sum-of-fractions of each identified radionuclide relative to its allowed Class C concentration limit, with the sum required to be less than one for the waste to be considered Class C. Individual waste packages have a range of concentrations, therefore for the present evaluation on a waste type basis, the waste package mean concentrations in OPG (2010) were compared with the Class C concentrations and a sum-of-fraction threshold of <0.1 was selected as the criterion for short-lived ILW.

On the basis of this criterion, OPG CANDECON resin ILW, Irradiated Core Component ILW, and Retube End Fittings ILW would be (generally) classed as short-lived ILW. These are estimated to have a total radioactivity of about 4,000 TBq at 2062 and an emplaced waste volume of about 16,000 m<sup>3</sup>, with most of the activity and volume in the End Fitting waste stream. The other ILW, classed as long-lived ILW by this criterion, would have a total radioactivity of about 12,000 TBq at 2062 and an emplaced waste volume of about 25,000 m<sup>3</sup>.

Although these waste streams may be generally considered as short-lived ILW, accurately identifying and separating out those OPG packages with short-lived ILW would require characterization of individual waste packages. This would result in additional worker dose.

#### Implications on OPG DGR Design

The OPG DGR is designed to hold both LLW and **ILW, whether short-lived or long-lived**. Similar types of waste packages are emplaced in different rooms, as this is efficient for handling and stacking. **For example, there are rooms intended for LLW, for unshielded ILW, and for shielded ILW. The latter distinction is based on dose rate. However, higher dose rate packages generally also contain a higher concentration of long-lived radionuclides. Therefore, there is already an approximate physical separation into lower amounts and higher amounts of long-lived ILW since higher dose rate packages are shielded and are generally located in rooms with other shielded packages**, while lower dose rate package are unshielded and placed in rooms with other unshielded packages. There is no benefit to further separation.

**AND WHEREAS** OPG in its Information Request Response EIS-09-466 OPG in responding to an information request relating to the long-term safety of the proposed DGR Project on the issue of heat generation stated:

#### OPG Response:

With respect to safety of the public and workers during operations, OPG's response to part (a) of IR-EIS-06-275 (OPG 2012) described design redundancies that support public and worker safety. These included the following systems that reduce the likelihood and consequences of accidents that could lead to release of radioactivity, or those that threaten worker safety:

- Electrical - Redundant electrical power sources, including backup emergency generator;
- Hoist - Robust waste package hoist system;
- Fire - Multiple options for fire suppression;
- Flooding - Extra pump capacity.

**It should be noted that there is no significant heat generation in the emplaced wastes**, and therefore there is no need for cooling systems. The design also includes features that, while not individually redundant, all contribute cumulatively to public and worker safety during operations. For example, minimizing use of combustible materials underground to reduce fire risk, and the installation of a blast-resistant closure plug when a panel has been filled.

**AND WHEREAS** OPG in its Information Request Response EIS-11-504 OPG was asked to provide a clear, concise and stand-alone definition of low, intermediate and high level waste and provided the following definition:

OPG Response:

CSA Standard N292.3-08 (CSA 2008) provides definitions of low-level waste, intermediate-level waste and high-level waste as follows:

- a. “Low-level radioactive waste (LLW) contains material with radionuclide content above established clearance levels and exemption quantities, but generally has limited amounts of long-lived activity. LLW requires isolation during handling and interim storage.”
- b. “Intermediate-level radioactive waste (ILW) typically exhibits levels of penetrating radiation sufficient to require shielding during handling and interim storage. ILW generally requires little or no heat dissipation during its handling, transportation, and long-term management. However, because of its total radioactivity level, ILW might require consideration of the implications of short-term heat generation. Because of its long-lived radionuclides, ILW generally requires a higher level of containment and isolation than can be provided in near surface repositories.”
- c. “High-level radioactive waste (HLW) is used (i.e., irradiated) nuclear fuel that has been declared as radioactive waste and/or is waste that generates significant heat (typically more than 2 kW/m<sup>3</sup>) via radioactive decay. Used nuclear fuel is associated with penetrating radiation; thus, shielding is required. Used nuclear fuel also contains significant quantities of long-lived radionuclides, necessitating long-term isolation. Waste forms derived from used nuclear fuel (e.g., nuclear fuel reprocessing wastes) can also exhibit similar characteristics and thus are considered HLW. Placement in deep, stable geological formations is recommended for the long-term management of HLW.”

**OPG considers that all its radioactive waste that is not used fuel is LLW or ILW.** OPG considers waste as LLW if the corresponding waste package has a dose rate of less than 10 mSv/h at 30 cm, and as ILW if the dose rate is greater than or equal to 10 mSv/h at 30 cm, or known to have a significant amount of long-lived radionuclides. The main purpose of distinguishing LLW from ILW at OPG's Western Waste Management Facility is to facilitate appropriate waste handling (from a worker dose perspective) and for putting the waste in an appropriate interim storage structure.

Radioactive waste generated during the refurbishment of nuclear generating stations can be either LLW or ILW. Refurbishment waste is a term used to distinguish the unique waste streams that can be generated during the refurbishment process. These are retube wastes (i.e., pressure tubes, end fittings, calandria tubes and calandria tube inserts) and steam generators. OPG (2010, Table 3.1) presents a breakdown of assumed refurbishment wastes into these individual components, where retube wastes are considered ILW and steam generator wastes are considered LLW. From Table 3.1 it can be calculated that 61% of the planned emplaced volume of 21,685 m<sup>3</sup> of refurbishment waste is ILW and 39% is LLW. HLW (i.e., used nuclear fuel) is not a component of refurbishment waste.

Refurbishment waste that is ILW (i.e., retube waste) is sized-reduced, as required, during the reactor retubing process and placed into robust steel and concrete containers to provide the required shielding. These robust waste packages are placed into interim storage and will be transferred to the DGR once it is in-service.

**AND WHEREAS** the Environmental Impact Statement for the DGR does not define what constitutes high level radioactive waste;

**AND WHEREAS** CNSC's definition of what constitutes high level radioactive waste being nuclear waste that generates significant heat is captured within OPG's definition of intermediate level waste;

**AND WHEREAS** IAEA's definition of what constitutes intermediate level waste being nuclear waste that consists of long lived radionuclides is captured within OPG's definition of intermediate level waste;

**AND WHEREAS** IAEA's definition of what constitutes high level waste being nuclear waste with levels of activity concentration high enough to generate significant quantities of heat by radioactive decay process or waste with long-lived radionuclides is also captured within OPG's definition of intermediate level waste;

**AND WHEREAS** OPG has not stated whether its definition of ILW includes waste that generates a significant amount of heat which is defined as high level waste by CNSC and OPG has refused to rule out the eventual storage of high level waste as defined by CNSC at the DGR.

**AND WHEREAS** OPG has not stated whether its definition of ILW includes waste that has long lived radionuclides and generates significant quantities of heat which is defined as either intermediate and high levels waste by IAEA and OPG has refused to rule out the eventual storage of intermediate level waste with long lived radionuclides and high level waste as defined by IAEA at the DGR;

**AND WHEREAS** neither OPG nor NWMO have publicly disclosed its long term management strategy for the disposal of high-level radioactive waste that is not used (irradiated) nuclear fuel but that generates a significant amount of heat and/or is consists of long-lived radionuclides;

**AND WHEREAS** the Supreme Court of Canada held in its decision of *MiningWatch Canada v. Canada (Fisheries and Oceans)* that:

It follows, then, that the scoping discretion under s. 15(2) and (3) acts as an exception to the general proposition that the level of assessment is determined solely based on the project as proposed by the proponent. The Act assumes that the proponent will represent the entirety of the proposed project in relation to a physical work. **However, as noted by the government, a proponent could engage in "project splitting" by representing part of a project as the whole, or proposing several parts of a project as independent projects in order to circumvent additional assessment obligations ... [emphasis added]**

**WE REQUEST THAT:**

1. The JRP order the Applicant to confirm, or otherwise, that the design for the DGR being proposed by OPG is not environmentally or economically suitable to accommodate high level waste as classified by the CNSC and IAEA; i.e. radioactive waste that is used (irradiated) nuclear fuel and/or waste that generates significant heat and/or has long lived radionuclides.
2. The JRP order the Applicant to confirm, or otherwise, that no such high level waste as classified by the CNSC and IAEA will ever be stored in the DGR and to undertake that no future application will be initiated to authorize storage in the DGR of such high level waste or in any other on-site DGR to be constructed.
3. If OPG confirms that the presently proposed DGR can accommodate high level waste as classified by the CNSC or the IAEA and OPG does not confirm and undertake that it will never be used for that purpose, the undersigned request that the JRP adjourn this proceeding and find that OPG's Environmental Impact Statement is deficient, incomplete and invalid and should be set aside.

**SUBMISSIONS IN SUPPORT OF REQUEST FOR RULING:**

It appears that OPG has carefully described the project in such a manner as to only include low and intermediate level waste. No definition is provided as to what constitutes intermediate level waste and whether or not it includes waste that generates significant heat so as to fall within CNSC's definition of high level waste.

The definitions of LLW and ILW being proposed in OPG's Environmental Impact Statement for the DGR are vague and incomplete and allows OPG to utilize the DGR facility for the disposal of high level waste as classified by the CNSC and IAEA, recognizing that this does not include irradiated fuel which is subject to a separate process being led by the NWMO. It appears that OPG has defined ILW in a manner that overlaps with CNSC's and IAEA's definitions of what constitutes HLW. OPG has defined ILW in such a manner so that it does not exclude heat generating wastes, in fact heat generating wastes are encompassed in OPG's definition of ILW.

OPG is intentionally circumventing the environmental assessment process by mischaracterizing the project. The project must be properly defined in a manner where the overall environmental impacts and cumulative effects can be properly assessed pursuant to the requirements of the *Canadian Environmental Assessment Act*. The disposal of high level waste that is not irradiated nuclear fuel but consists of long-lived radionuclides would be permitted at the DGR with the approval of OPG's Environmental Impact Statement. Absent a specific, detailed project description that consists of a defined, clear and cohesive waste stream, the ability of the JRP, agency reviewers, intervenors and the public to assess the project is undermined. OPG has failed to provide any clarity on whether there are technical, legal or other barriers to the emplacement of HLW in the DGR.

The JRP should not accept the lack of clarity contained in the EIS and technical documents submitted by OPG. OPG should be required to provide a detailed description of what would be emplaced in the DGR and an undertaking of what would not, now, and in the future, be deposited in the DGR along with technical documents in support of the waste proposed to be deposited in the DGR. Until such clarity and technical documentation is provided the JRP is not in a position to make a determination on the veracity of the EIS.

Further, the project as presented by OPG represents project splitting as defined by the Supreme Court of Canada in *MiningWatch Canada v. Canada (Fisheries and Oceans)*, 2010 SCC 2.

All of which is Respectfully Submitted by the following registered Oral Intervenors in this proceeding as of this 3<sup>rd</sup> day of October, 2013.

Algoma Manitoulin Nuclear Awareness, Edward Burt

Algonquin Eco Watch, Mike Wilton

Beyond Nuclear, Kevin Kamps

Bluewater Coalition, Cheryl Grace

Bruce Peninsula Environmental Group, Ziggy Kleinau

Canadian Coalition for Nuclear Responsibility, Gordon Edwards

Canadian Environmental Law Association, Theresa McClenaghan

Citizens Clearinghouse on Waste Management, John Jackson

Concerned Citizens of Renfrew County, Ole Hendrickson

Durham Nuclear Awareness, Janet McNeill  
Future Generations, Deborah Mihalicz  
Greenpeace Canada, Shawn-Patrick Stensil  
Huron-Grey-Bruce Citizens Committee on Nuclear Waste, Sharen Skelly  
International Institute of Concern for Public Health, Anna Tilman  
Inverhuron Committee, Marti McFadzean  
Justice and Global Issues Committee, South East Presbytery, Toronto Conference, United  
Church of Canada, Rev. Victoria Obedkoff  
Lake Erie Waterkeeper, Sandy Bihn  
Lawyers Committee on Nuclear Policy, Anabel Dwyer  
Michigan State Representative Sarah Roberts (Democrat - St. Clair)  
Michigan State Senator Hoon-Yung Hopgood (Democrat - Taylor)  
Northwatch, Brennain Lloyd  
Nuclear Free Great Lakes, Michael Keegan  
Nuclear Information and Resource Service, Diane DArrigo  
Ohio Sierra Club Nuclear Free, Patricia Marida  
Provincial Council of Women of Ontario, Gracia Janes  
Save our Saugeen Shores, Jill Taylor  
Sierra Club Canada, John Bennett  
Siskinds LLP, Paula Lombardi for Eugene Bourgeois  
Southampton Residents Association, Kenneth Robertson  
Stop the Great Lakes Dump, Beverly Fernandez  
Voice of Women for Peace, Lyn Adamson / Angela Bischoff  
WHEN, Dorothy Goldin Rosenberg  
ZeroWaste4ZeroBurning, Louis Bertrand