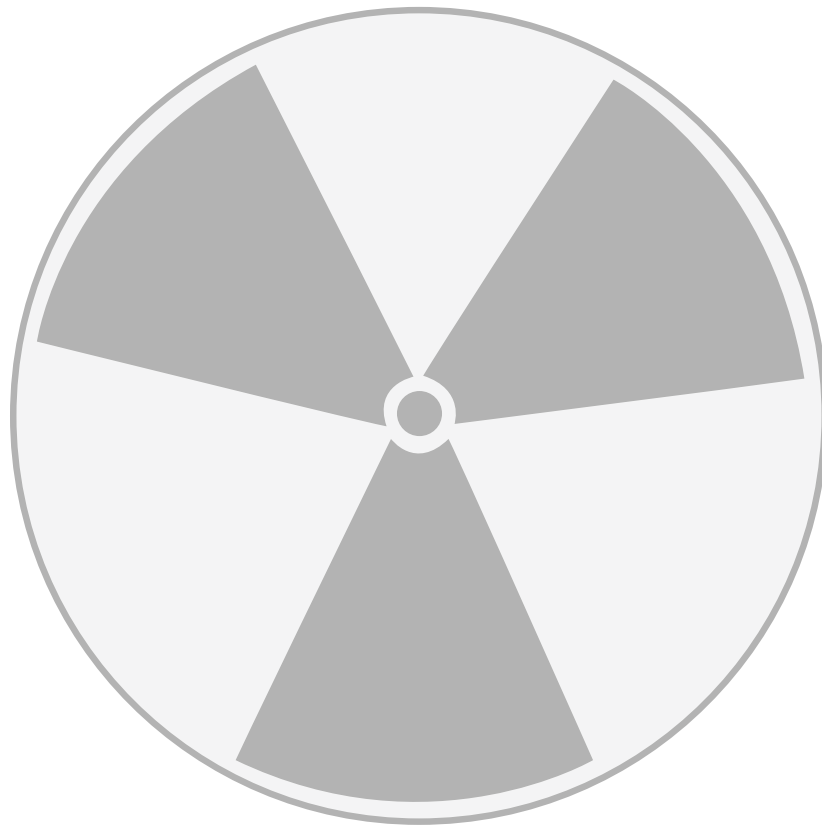


Always Changing, Forever Yours: Nuclear Fuel Wastes



Three Workshops for Faith Communities

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In-depth background for leading these workshops is provided in the accompanying *Leader's Guide*.

Introduction

... We live in God's world... We are called... to celebrate God's presence, to live with respect in Creation, to love and serve others, to seek justice...
"A New Creed"

Energy issues have risen to the top of the Canadian public agenda and in the lives of ordinary Canadians. Energy and its flow through ecosystems and human societies affect nearly every aspect of life on Earth. Over the years, the work of The United Church of Canada has engaged the whole range of interconnected aspects of energy justice in Canada and around the globe. It has taken economic, social, and environmental approaches, including reflection and action related to all kinds of energy sources.

This study guide for faith communities encourages reflection on the complex ethical issues related to nuclear fuel production and use. It is offered to support public participation in decision-making related to nuclear issues, particularly long-term management of nuclear fuel wastes. It shares The United Church of Canada's perspectives, policies and past work related to nuclear fuel production and use, from uranium mining to nuclear fuel wastes and military applications of radioactive materials.

It is intended

- to assist congregations and church courts in areas that may be considered as sites for long-term management of nuclear fuel wastes or for transportation corridors
- to awaken a responsibility in all congregations to participate in substantive discussions on nuclear power
- to help participants be aware of their own role in the complexity of energy issues
- to encourage action in solidarity with those who find themselves directly affected by nuclear issues

The involvement of the United Church in energy issues, including climate change, fossil fuels, conservation, renewable alternatives, and nuclear power, is founded on a policy framework that reflects

- respect for the Earth
- protection and repair of the environment
- solidarity with the poor
- social and economic justice
- a responsibility to future generations
- promotion of non-violence and human rights
- meaningful participation in decision-making
- accountability of those in positions of power

Therefore, while the overall focus of this study guide is on nuclear fuel wastes, broad discussion is encouraged within the activities. Along with global and ecumenical partners through KAIROS: Canadian Ecumenical Justice Initiatives, the United Church is engaged in the Re-energize campaign, working toward a major shift to a sustainable and just energy economy (see www.re-energize.org).

Reflecting on these issues and acting on our conclusions is also part of the church's pastoral and prophetic work of "living faithfully in the midst of empire." This is a time for courage, faithfulness, and hope in God's abundant grace, in the growing awareness of the international community, and in the fortitude of ordinary people who increasingly express willingness and commitment to work for a transformed energy future. It is our hope that the work of The United Church of Canada on energy, including this resource, will be a meaningful contribution to the necessary work of creating a new energy paradigm.

This study guide is presented in three workshops, each with background information, a suggested agenda, and support materials. While the sessions link to preceding units, each can be used alone. In-depth background detailing United Church policy positions, submissions to the Nuclear Waste Management Organization (NWMO) and the Seaborn Panel, and scientific underpinnings are found in the accompanying *Leader's Guide*. Leaders may wish to adapt this resource to better serve the group, recognizing that concerns, issues, and conflicts affect various regions in different ways. Some time should be allowed for participants to explore the church's policy framework in *One Earth Community*. As well, it is recommended that some form of group prayer be part of each workshop.

These topics are challenging and sometimes may seem discouraging; the perspectives brought to any discussion may be diverse or conflicting. Within the church there is a diversity of views about nuclear issues. This resource is based on United Church of Canada policy and approved submissions on nuclear fuel wastes. The perspective reflected may not necessarily be shared by all United Church members. Let us hold all Creation in our soul, all people in our heart, and all blessings in our mind, to approach this study with humility, openness, and gratitude.

We recognize the need for mutual accountability, for respect, trust, forgiveness and persistent love, and the need to be ever-conscious of the covenant we share with all those who share with us in God's covenant.

"Seeking to Understand 'Partnership' for God's Mission Today," a statement of The United Church of Canada approved by the 32nd General Council, 1988, and reaffirmed by the 37th General Council, 2000.

SESSION 1: SHARING THE ONE EARTH COMMUNITY

Objectives

1. To introduce an ethical and theological lens based on a combination of the ethical principles from the United Church policy statement *One Earth Community* and the *Earth Charter*.
2. To expose the group to different ways of reflecting on material, helping individuals to participate and helping the group to value different perspectives.

This workshop follows the United Church's Submission 2 to the Nuclear Waste Management Organization, "Commentary on a United Church of Canada Ethical Lens for Viewing the Problem of Nuclear Wastes" (2005), available at www.united-church.ca/ecology/energy.

Background

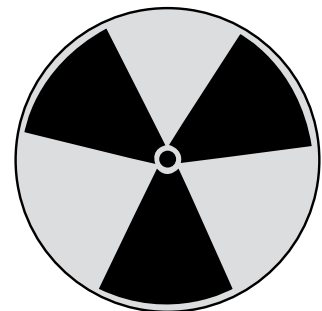
In its policies and work at General Council and Conference levels, the United Church views nuclear fuel waste within

- the complex of problems in nuclear fuel production and use
- the international problems of nuclear wastes, particularly with respect to Canadian exports
- the risks of proliferation of military applications of radioactive materials
- the question of the future of nuclear power

We live in God's world, in gratitude for the richness of Creation. We have a growing awareness of the complexity of life-sustaining systems, of our ability to do far-reaching damage, and of our humble place as one species among millions in this interdependent web of life. As a faith community, we are called to the transformative work of principle-based approaches to environment and development issues.

Before us are a number of nuclear fuel system issues, including refurbishments, consideration of new nuclear power plants, possible expansion of uranium mining, plans for the fabrication and use of enriched uranium, and a decision from the Minister of Natural Resources to move toward deep geological disposal as the long-term management option for nuclear fuel waste in Canada. The United Church views nuclear fuel waste as inseparable from all of these nuclear fuel system issues. It is also interconnected with many broader issues directly related to how we view the world and our place in it.

(For in-depth background, see *Leader's Guide*.)



Workshop Agenda

Materials

- Distribute handouts: “Opening Prayers,” page 9; “Ethical Lens,” page 10; “Action Prayer,” page 12; and United Church Submission 2 to the NWMO (available at www.united-church.ca/ecology/energy)
- Have available *Voices United* hymn books; glasses and water (encourage participants to bring their own cups)

Call to Workshop (15 minutes)

- Welcome and introductions
- Opening prayers (page 9)
- Why this topic of nuclear fuel wastes? Why now? Why us?
Facilitate a brief discussion on what has brought the participants to the workshop.

Changing Worldview (15 minutes)

- United Church of Canada policies: Present a brief overview of United Church policy reflecting a move from dominion to stewardship to interconnection (refer to *Leader’s Guide*, pages 5–8).
- Group sharing on worldview and values: Use a flipchart or other means to post the group input on worldview and values that they see as important to rebalance consumerism and globalization and counter the influence of dominion and empire. (This record should be kept to refer to and build on, as the sessions continue.)
- Ethical principles: Each participant takes a turn reading one of the 12 principles (as they are comfortable), leaving a moment for reflection in between (page 10).

Concerns Related to Nuclear Power (10 minutes)

Use a flipchart or other means to post the concerns raised within the group related to nuclear power. (The record of concerns should be kept to refer to as the sessions continue) (For background, see “Some of the Concerns” in *Leader’s Guide*, pages 12–16.)

Ethical Principles as a Guide, part 1 (15 minutes)

The ethical principles can be used to guide thinking on issues related to nuclear power. As you consider the 12 principles, a variety of approaches may prove helpful (page 10). Lead principle 1 with the whole group (see example, page 11). Then determine small groups and have each choose a different principle to explore.

—Break—

Ethical Principles as a Guide, part 2 (20 minutes)

Each group should have a copy of the sheet from United Church Submission 2 that corresponds to the principle that they have chosen.

Share reflections within the small group on the chosen principle using different approaches and if time permits move to any other principle.

Putting It Together (20 min)

- Come together for plenary.
- Action Prayer: “I Will Take Off My Sandals” (page 12)
- Share input from the small group reflections.
- Have the record of the previous group-sharing exercise available and add to it as the reflections are discussed.

Nuclear Energy and Climate Change (10 min)

The leader can give an overview of the policy statement *Energy in the One Earth Community* (www.united-church.ca/ecology/energy/oneearth), and relevant points from Session 1 background in the *Leader’s Guide*, with opportunities for group comment.

Closing (5 minutes)

A reminder of the topic of the next session: Considerations in the long-term management of nuclear fuel waste and the choice by the Minister of Natural Resources of a stepwise approach to deep geological disposal for nuclear fuel waste.

Who is aware of the NWMO, the process or their report “Choosing a Way Forward”? (available at www.nwmo.ca). Get names of those who participated in any engagement activities in the NWMO process and who would like to briefly share the key points of their experience in the next session.

Closing hymn: “I the Lord of Sea and Sky (Here I Am Lord)” (*Voices United* 509), verses 1, 2

Opening Prayers

Adapted from the liturgy “The Earth Is the Lord’s” commended to congregations by the 33rd General Council, 1990

Leader: God saw all that was made, and behold, it was very good.

**All: We live in God’s world; we are not alone.
We share this life with the heavens and Earth, with the waters, air, and land, with trees
and grass and fish and birds—with all the plants and animals, with all our brothers and
sisters; we share this life with other life of every form.**

Hymn: “All Things Bright and Beautiful” (*Voices United* 291)

Call to Confession

Leader: God’s Creation is being abused and violated.

**All: We often see ourselves as separate from Creation,
not woven into the web of life.**

(each person takes a turn to read, as they feel comfortable:)

The biblical reference to “dominion over the earth” is used to exploit and destroy the Earth.
As individuals and as societies, we can become dependent on a lifestyle of consumerism, a desire for
limitless economic growth.

We often fail to accept responsibility for the part that we play in destroying our environment.

We use more than our share of the Earth’s resources.

Some around us and millions in the world struggle for survival, in need of food, clean water, and
adequate housing.

We squander resources on technologies of destruction—bombs before bread.

We are responsible for massive pollution of land, water, and sky.

**All: We confess to God that we have not loved the Earth as sacred Creation
and we have not passed it on to future generations uninjured
in its life-giving capacity.**

Assurance of Pardon

Leader: God is love. God is with us as we struggle with these problems.

**All: God is with us as we repent and try to truly change our ways;
God is with us as we try to see ourselves as a precious part in a web of precious life and
sustaining systems;
God is with us as we ask for forgiveness from the Earth and from future generations
through actions in our personal choices, in our communities, in our industries, and in our
governments.
God is with us and God is in all of Creation. We live in God’s world.**

Hymn: “Touch the Earth Lightly” (*Voices United* 307)

Ethical Lens

Based on the ethical principles in *One Earth Community* (adopted by the 34th General Council, 1992) and in the *Earth Charter* (www.earthcharter.org) (endorsed by the 38th General Council, 2003).

An ethical response to the issues of nuclear wastes should

1. reflect a responsibility to the Earth in its wholeness
2. be founded on a just international order which is people-oriented, respects human rights, ensures the voice of the world's poor and is ecologically sound
3. promote change of lifestyle from high material consumption to greater equity and sustainability
4. promote humanity's understanding of its collective responsibility for environmental damage and repair and that environmental damage must stop
5. protect the rights of future generations
6. not threaten the sustaining capacity of the Earth
7. respect and protect the biodiversity of the Earth
8. not contribute to militarization but promote a culture of tolerance, non-violence and peace
9. ensure meaningful participation of individuals and groups in the decision-making processes
10. assure opportunities for learning and access to knowledge
11. be based on adequate environmental, social and cultural impact assessments
12. hold authorities and corporations responsible for their actions domestically and internationally and ensure that Canada accepts its global responsibility to prevent environmental damage

Using Ethical Principles as a Guide

As you consider the principles, a variety of approaches may prove helpful:

- Take a broad view on the guidance given by the principle.
- Relate the principle to specific topic(s) of concern.
- Find key words or phrases that may help you to include this principle in your everyday thinking.
- Ask yourself questions such as: What energy choices or lifestyle changes are supported by this principle? How does this principle relate to nuclear wastes and my view of nuclear power issues? How does it relate to my worldview and values?
- Read the excerpt under the principle from United Church Submission 2.
- Share a hymn or a prayer that captures some aspect of this principle for you.

Leading Reflection on the Ethical Lens (Principle 1)

1. “An ethical response to the issues of nuclear wastes should reflect a responsibility to the Earth in its wholeness.” This is a reminder of *One Earth Community* principle 1—“Human societies must bear a responsibility toward the Earth in its wholeness”—and *Earth Charter* principles 1 and 2:

1. *Respect Earth and life in all its diversity*

Recognise that all beings are interdependent and every form of life has value regardless of its worth to human beings. Affirm faith in the inherent dignity of all human beings and in the intellectual, artistic, ethical, and spiritual potential of humanity.

2. *Care for the community of life with understanding, compassion, and love*

Accept that with the right to own, manage, and use natural resources comes the duty to prevent environmental harm and to protect the rights of people. Affirm that with increased freedom, knowledge, and power comes increased responsibility to promote the common good.

Example of Different Approaches to Principle 1

Take a broad view on the guidance given by this principle

- Take responsibility to maintain and pass on the Earth’s sustaining systems uninjured in their life-giving capacity, e.g., water, carbon, and nitrogen cycles; ocean currents; weather systems; gene pools.
- Protect ecosystems as a whole. See Earth as one ecosystem.
- Respect aspects viewed as “inanimate,” e.g., water, air, soil, rock, non-renewable resources.

Relate the principle to specific topic(s) of concern

- *Uranium is a non-renewable resource:* We have a responsibility to move away from dependence on non-renewable resources, especially when there are associated serious environmental, health, and security risks or environmentally sound renewable options.
- *Nuclear fuel wastes are inherently hazardous indefinitely:* A United Church response to the production of chemically toxic, radioactive nuclear fuel wastes has been a call for a moratorium on new nuclear power plants and on refurbishment of existing plants, and a moratorium on new uranium mine development.

Find key words or phrases that may help you to include this principle in your everyday thinking

- “Planet Earth is a sacred place.”

Ask yourself questions such as:

- What energy choices or lifestyle changes are supported by this principle? How does this principle relate to nuclear wastes and my view of nuclear power issues? How does it relate to my worldview and values?

Read the excerpt under the principle from United Church Submission 2 to stimulate discussion

Share a hymn or a prayer that captures some aspect of this principle for you

- “Take, take, take off your shoes, you are standing on my holy ground,” chorus and verse 1 (available in *Seed Songs of Earth and Spirit* by Jim Manley, 1983; *All God’s Children Sing* 39, Wood Lake Books; or *Spirit of Singing* #69, Wood Lake Books)
- “Wellspring of Wisdom,” verses 1–3 (*Voices United* 287)

Action Prayer: I Will Take Off My Sandals

Leader: When the Lord saw that he had turned aside to see,
God called to him out of the bush, "Moses, Moses!"
And he said, "Here I am." Then God said, "Come no closer!
"Remove the sandals from your feet,
"for the place on which you are standing is holy ground." (Exodus 3:4–5)

All: *(with rhythm)* Every surface of the Earth,
all the high and the low land, from the poles to the tropics,
every brook and lake bottom, all the floors of the oceans,
all the depth of Earth's mantle, to the core of the planet,
hot to cold, wet to dry,
se-di-men-tar-y to granite!
(with conviction) The place on which we are standing is holy ground!

Each: I will take off my "sandals."

(Participants are invited to say this while removing their footwear, or while miming the action.)

Leader: Why remove "sandals" from our feet?

All: **Show respect; show respect for all Creation.**

Leader: There is suffering for those who walk with their "sandals" off.

All: **Feel the ground; feel connected to Creation.**

Leader: You have to be aware of where you are going and how you are getting there.

All: **Be comfortable; be one with Creation.**

Leader: You have to remember no matter where you are, your "sandals" are off.

All: **We are with God in each place, at each time;
each step is an opportunity to live humbly, with respect within Creation.**

SESSION 2: NUCLEAR FUEL WASTES IN THE ONE EARTH COMMUNITY

Objectives

- To share the United Church's work on nuclear energy and nuclear fuel wastes, and its engagement with the Nuclear Waste Management Organization (NWMO), including its assessment of the NWMO recommendations.
- To stimulate discussion of the issues, and inform Canadian communities that may be involved in future NWMO processes and the implementation of Adaptive Phased Management toward deep geological disposal of nuclear fuel wastes.

Depending upon issues in the community and your experience with nuclear issues, a group may desire a specific focus.

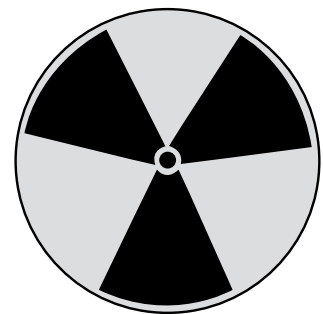
Background: The Nature of the Hazard

The radioactivity and the chemical composition of nuclear fuel waste will change with time. However, nuclear fuel waste will continue to be radioactive and chemically toxic at hazardous levels indefinitely.

How we package nuclear fuel waste, and how we and future generations manage the packaged waste will affect the risk of exposure to the inherent hazards of the waste. However, there is not at this time and may never be a management option that is capable of isolating the waste indefinitely or solving the problem of nuclear fuel waste's long-term inherent hazards.

The inclusion of ethical and social considerations, as well as environmental considerations, in decision-making about nuclear waste management is of vital importance.

(For in-depth background, see *Leader's Guide*.)



Workshop Agenda

Materials

- Distribute handouts: “Opening Prayers,” pages 16–17, “Reflecting on Nuclear Fuel Waste in Different Contexts,” page 18, and the “Ethical Lens” from Session 1 (page 10)
- Bring flipchart/sheets from Session 1 of worldviews, values, and concerns
- Have available *Voices United* hymn books; glasses and water

Before the session starts, identify those who would be willing to help present the mini-drama(s), and ensure that they have copies of their drama and know which part they are to read.

Call to Workshop (10 minutes)

- Welcome and introductions
- Opening prayers (pages 16–17)
- Briefly review worldviews, values, concerns, and other points from Session 1, with opportunity for those who were not in Session 1 to connect.

Overview of NWMO; United Church Involvement (15 minutes)

Who is aware of the Nuclear Waste Management Organization (NWMO), their study process, their reports, or United Church involvement? Give an opportunity for participants who have offered to share some points from their involvement in NWMO processes.

Give a brief statement of the NWMO structure, its tasks, and the three options for nuclear fuel waste management that were to be assessed. Briefly outline the types of United Church involvement in the process. (See *Leader's Guide*, pages 18–19.)

Adaptive Phased Management Approach (20 minutes)

Guide the group through discussion based on Session 2 *Leader's Guide* sections: “The Nature of the Hazard” (page 17–18), “Adaptive Phased Management” (page 21–22), and “No Solution” (page 23).

Nuclear Fuel Wastes in Context, part 1 (20 minutes)

In decision-making and implementation, ethical considerations are fundamentally important: the ethics of what is being done (substantive); the ethics of the way it is being done (procedural); and ethical considerations that arise from the context within which it is being done. This workshop asks you to focus on ethical considerations in the context of relevant issues.

Ethical Lens

Leader: Using the United Church of Canada policy base presented in Session 1, founded on the ethical principles presented in *One Earth Community* and the *Earth Charter*, the United Church has submitted the following guidance:

All: **Canada's approach to dealing with nuclear waste issues must...** (Each participant takes a turn to read one of the 12 principles in the ethical lens on page 10, as they are comfortable, leaving a moment for reflection in between.)

All: **Such a framework requires that nuclear fuel waste be viewed as an issue within the complex of problems in nuclear fuel production and use; within the international problem of nuclear wastes and related Canadian exports; within the risks of proliferation of military applications for radioactive materials; and within the question of the future of nuclear power.**

Ethical Reflection

Participants work individually with “Reflecting on Nuclear Fuel Waste in Different Contexts” (page 18). Which contexts have an influence for you? What influence do they have? Which have the biggest impacts for you? List other factors not on the sheet that are significant for you.

Participants come together and combine their results. Discussion will follow the break.

—Break—

Nuclear Fuel Wastes in Context, part 2 (30 minutes)

Three mini-dramas are included to stimulate discussion (pages 19–24). They touch on only a few issues. If possible, arrange with some participants to read a part in the plays. Make sufficient copies so that each reader has a copy of their play.

Following each play, discuss relevant contexts that the mini-drama presents or the group selected as important.

What issues arose in the mini-drama? What significant contexts were identified in “Reflecting on Nuclear Fuel Waste in Different Contexts.”

If you broke into small groups, come together to share a summary of each group's discussion.

Some Next Steps (10 minutes)

With these issues in mind, the leader can review the additional consultations that the United Church has urged, with opportunity for group comment. (See *Leader's Guide*, pages 25–26.)

Closing (5 minutes)

A reminder of the topic of the next session: Bringing the One Earth Community to the Consultation Table.

Has anyone an experience in consultations related to site selection or other implementation activities by NWMO, or other hearings recently held on a nuclear issue that they would be willing to share at the next session?

Closing hymn: “The Earth and All Who Breathe,” verses 1–3 (*Voices United* 295)

Opening Prayers

Adapted from the liturgy “The Earth Is the Lord’s” commended to congregations by the 33rd General Council, 1990

Reader: The earth is the Lord’s and all that is in it, the world, and those who live in it. (Psalm 24:1)

All: “A Prayer for the Care of Creation” (*Voices United* 311)

Hymn: “How Great Thou Art, verses 1, 2 (*Voices United* 238)

Call to Confession

Reader: We confess our part in hurting planet Earth.

All: **We are killing the land:** (*continue with people taking turns to read*)
As our agricultural land loses its fertility, is contaminated, is built over;
As we produce uranium and nuclear fuel wastes with inherent hazards that threaten life for millions of years to come;
As vast areas of the living surfaces of Earth are lost to resource extraction, development projects, sprawl;
As destruction, landmines, toxic chemicals, and radioactive hazards are a legacy of our relationships of conflict.

All: **We are killing the water:** (*continue with people taking turns to read*)
As groundwater is poisoned;
As toxic chemicals and human wastes are dumped in rivers, lakes and oceans;
As destructive fishing methods ruin habitats.

All: **We are killing the air:** (*continue with people taking turns to read*)
As pollutants poison the air;
As fossil fuel industries expand and greenhouse gas emissions increase;
As radioactive gas is released from mining, tailings, soils.

All: **We recognize that these problems will not be solved easily yet we walk toward the future with hope.**

cont.

Assurance of Hope

Reader: Let us express our thanks for signs of hope.

All: *(continue with people taking turns to read)*

We are thankful for the passion of those who push for recognition of the urgency of the environmental crisis.

We are thankful for the experience of those who have come to know that environmental abuse, social injustice, and economic inequity are parts of the same problem.

We are thankful for the wisdom of the aged who have lived in respect for Earth and remind us what it means to live in community with one another.

We are thankful for the inspiration of those who have already begun to live in ways that show a caring for the soil, water, air, and communities of life.

We are thankful for the insights of Aboriginal brothers and sisters who draw on their tradition and teach us about the sacredness of all Creation and how to live in kinship with it.

We are thankful for the efforts of those who pray and work for peace.

All: **We thank you God for all signs of hope that keep us from despairing and point us toward new ways of living.**

We commit ourselves anew to seeing the affliction of the Earth, to learning more about the changes that are needed and to embarking on that road toward life lived in harmony with all God's Creation.

Hymn: "Wellspring of Wisdom," verses 1–4 (*Voices United* 287)

Reflecting on Nuclear Fuel Waste in Different Contexts

Individually:

1. Check off those contexts that are relevant to you, keeping in mind an ethical perspective.
2. Beside the contexts you've checked off, note what influence they have.
3. Go back and mark with an asterisk those that you consider the most important.
4. Add other factors that are significant for you.

As a group:

1. Collate the results, using the most significant issues as a basis for subsequent discussion.

Contexts

- The nature of the inherent hazards:
persistent radiation, chemical toxicity at high level _____
- Risks and uncertainties in long-term nuclear waste management _____
- Problems associated with uranium mining, milling, and tailings _____
- The cost of the nuclear fuel production, use, and waste chain _____
- Aboriginal issues _____
- Global development issues _____

- Risk of nuclear weapons proliferation _____
- Depleted uranium use _____
- The inseparable aspects of civilian and military nuclear materials _____
- Canada's intention to enrich uranium _____
- Impact of deep-bombing developments
on level of safety assumed for buried waste _____

- Nuclear power's greenhouse gas emissions _____
- Fear of energy insufficiency _____
- Fear of job loss for self or others _____
- Lack of economic development in my area _____
- New nuclear power facilities _____

- Refurbishments _____
- Advertisement of nuclear power as clean, safe, and cheap _____
- Government assurance of safety in news releases on nuclear power issues _____
- Potential for sabotage to nuclear facility or radioactive materials in transport _____
- Theft of radioactive material _____

- CANDU clients' long-term nuclear waste management dilemma _____
- Level of control of the end use of Canadian uranium _____
- Level of control of the end use of Canadian nuclear technical services _____
- Possibility Canada will take back the radioactive wastes from all our uranium exports _____
- Transportation of fuel and used fuel and waste _____

- Other _____

Mini-drama 1: “One Step at a Time”

For three readers.

1st Team Member: OK, nuclear fuel waste management Evaluation Team, let's get some of our points together. The concept is a centralized facility for managing nuclear fuel waste from our present power plants. It doesn't matter at this point whether the centralized storage is above ground or below, or in a deep repository.

2nd Team Member: A single centralized facility limits exposure to hazards.

3rd Team Member: *If you assume nuclear power is going to be phased out.*

1st: What do you mean?

3rd: Without a phase-out, exposure risks would remain at multiple reactor sites. And a centralized storage facility introduces an additional site.

1st: OK. Long-term management off the reactor site will not eliminate on-site security risks as long as new sites are coming into production. And any risks associated with the on-site wet and dry storage of used nuclear fuel will continue for at least 30 years beyond the end of production at each facility.

3rd: And risks associated with the operation of nuclear power plants are ongoing. So are hazards related to decommissioning of plants and managing contaminated sites.

2nd: The point is that a centralized facility could limit exposure to hazards posed by *the existing* nuclear fuel waste.

3rd: A centralized facility adds transportation risks.

2nd: These transportation risks are for a limited time duration.

3rd: *Assuming nuclear power phase-out.*

1st: Right. Transportation of waste to a centralized storage facility will continue from every reactor site for at least 30 years after it stops production. If we keep refurbishing and start adding new nuclear power stations, there is an unpredictable amount of waste. And transportation of waste continues indefinitely—as long as waste continues to be generated, plus 30 years longer.

2nd: To move these discussions forward, I see that we will have to include a little something about that point. Still, it is clear that transportation will be for a limited time—let us just say the timeframe will be “final production plus 30 years.” Now remember we are to confine our assessment to waste produced by presently existing nuclear power facilities.

3rd: Each time we try to assess a management plan, we're required to limit the scope of the problem as a first step. Should we take a serious look at nuclear power phase-out as a necessary first step in a management plan?

Session 2: Nuclear Fuel Wastes in the One Earth Community

- 2nd: Once we decide on a management approach, it can be expanded. Or there can be multiple facilities to handle additional nuclear fuel waste. We are not getting into the debate on the future of nuclear power.
- 1st: We need to check on the technical feasibility of expansion of a centralized site or multiple sites.
- 3rd: Excuse me—I tried to make this point before. We are to exclude discussion of future nuclear waste from public consultations. If we produce a recommendation that says we consulted the public and we have an approach that can be expanded or multiplied to handle additional waste—what do you think that implies?
- 2nd: I got the point before. We want to present the report stating clearly that we are not promoting nuclear power. The future of nuclear power is a separate decision and our report has nothing to do with that decision.
- 1st: Yes, yes, we are not taking any stand: not for it, not against it.
- 3rd: Then should we take a good look at the impact of future production on all the assessment issues? Should we look at the impact if there is future production and if there is not?
- 2nd: Give us an example.
- 3rd: We were talking about impacts on transportation. So for example, when we consider social acceptability, we would want to know if there would be a different response from people if they knew that nuclear waste was to be trucked through their community for a fixed time during nuclear power phase-out, compared to an unpredictably longer time of transportation with the expansion of nuclear power.
- 1st: No, we are not getting into that. That sort of issue is for the implementation phase.
- 2nd: I don't think we should assume that it will be included in an implementation phase.
- 3rd: When will the impacts of additional nuclear fuel waste production be considered?
- 1st: Good question.

Mini-drama 2: “The Word on the Street”

For six readers (interviewer and five guests).

Interviewer: Here we are, out on the street for “Your Say on Today’s News.” We’ve got nuclear power in the news: “Natural Resources Canada says a nuclear future is clean, safe, and responsible.” The nuclear industry says nuclear power is clean, safe, and cheap. What do you say? I have here a citizen from Ontario:

Ont.: Nuclear power clean? Yeah, sure, nuclear power cleaned us right out—and there’s lots more to come with decommissioning, forever storage.... And who’s going to pay when there’s an accident or sabotage? It all comes down to one wallet—the taxpayers’ wallet. My wallet!

Int.: OK, thanks. Now we have a visitor from the United States. Nuclear power is in the news as clean, safe, and cheap.

U.S.: Well, just send us the cheap power from your new nuclear plants and have a good time taking care of those “clean, safe” radioactive, chemically toxic wastes. Oh, and if you have any accidents, I hope nothing drifts south. And when the containment of the waste breaks down, I hope the leakage won’t affect my offspring in the distant future.

Int.: Right. And here we have a resident of northern Saskatchewan.

Sask.: Hi, there!

Int.: Hi. Today we are asking your opinion on nuclear power, which the industry tells us is clean, safe, and cheap.

Sask.: We have enough “clean, safe” uranium tailings from getting the fuel for your nuclear power plants. When are they going to do something about that mess! And don’t be putting us on your list of sites for storing your “clean, safe” nuclear fuel wastes!

Int.: Whoa, now that person...yes, well...seemed so cheery at first. Now for our last interview I have—where are you from?

Last: Do I have to say?

Int.: No, that’s fine. What do you think of nuclear power?

Last: Is it safe?

Int.: Sorry, I should have told you that the government and industry tell us that it is clean and safe.

Last: Really? I thought that there was a big problem with radioactive wastes. I think the nuclear fuel waste is really toxic for a long time—like forever.

Session 2: Nuclear Fuel Wastes in the One Earth Community

Int.: Well, in the news Natural Resources Canada says that they made a decision on a way to look at managing those wastes. So they must have a safe solution.

Last: A decision doesn't mean they've determined safety. And looking at management doesn't equal a solution.

Int.: I think we're getting off-topic here. Thanks for your time. I'm told we can slip in one more interview. Yes, hello, how do you feel about clean, safe, and cheap nuclear power?

Really Last: It sounds good to me. I mean, think of the jobs. And I'm really worried about climate change and about all our oil going to the U.S. I'm afraid there won't be enough power here in Canada. I mean, think about not having enough energy. Why shouldn't we have as much of it as we like? It's a reality check, eh. What are we going to do for power? Do we really have any choice? I mean, if they are saying that nuclear power is clean and safe and cheap now, well that's it, eh!

Int.: Great, that wraps it up on the question of nuclear power.

Mini-Drama 3: “Safe Burial”

For three readers.

1st Team Member: OK, nuclear fuel waste management Evaluation Team. We are continuing our assessment of the deep geological disposal approach. Our task today is to consider a scenario for 175 years from now. That’s 7 times 25—see, that’s 7 generations from now, so that means we have inclusion of Aboriginal Traditional Knowledge in this process, right!

2nd Team Member: I want to remind the team that you are required to consider *only* the nuclear fuel waste that exists now or will be produced in the normal life of existing plants.

3rd Team Member: Here’s the scenario: The time is 175 years from now. The planet has ongoing nuclear capacity and the number of regions with nuclear power and nuclear weapons has crept up over the decades. Different regions have been on the brink of nuclear war several times. However, all-out nuclear war has been avoided so far. Terrorism and social instability are upon us as society teeters in some world regions.

1st: Clearly, this scenario tells us that we had better have today’s wastes safely buried before then. Let’s look at that timeframe for siting and transporting the wastes.

2nd: Well, we have the cool-down storage period at the reactor site of 30 years before any transport off the site. So we will have a lot ready to go when the consultations and site preparation is done. And the rest that will be produced for the life of existing plants will be ready to move soon after the transport of the older waste is done.

3rd: Hey look, in this scenario, there would be a lot of used nuclear fuel stored at each of those future nuclear power plants for the last 30 years of production. That’s all the wastes from 145 to 175 years from now at each plant.
And there would be a lot more plants than today.
And there would be millions of bundles in each of the various stages of transport and interim storage.
And there would be siting and construction of untold numbers of deep disposal sites... I wonder if there would be enough suitable sites.

1st: May I remind you that you are to ignore the nuclear fuel waste quantity building up over the years. And the various management phases that the different years of production would be in, and the multiple levels of waste considerations. You are to look only at the safety of *today’s* nuclear fuel wastes if they were sealed in the repository by 175 years from now!

3rd: In the scenario we’ve been given, the fact that the nuclear fuel bundles from the present era are now in a deep repository is less significant, compared to the volume of used nuclear fuel amassed over the intervening years.

2nd: Our task is limited to today’s nuclear fuel waste and there’s nothing insignificant about it.

Session 2: Nuclear Fuel Wastes in the One Earth Community

- 3rd: You missed my point. You're not using this scenario at all. You're making conclusions as if this scenario said there had been no more nuclear power plants built.
- 2nd: Nuclear fuel waste exists now and we have to take responsibility for it, whether more waste is produced or not. So future production is not relevant.
- 3rd: That statement has been used for years to try to legitimize excluding discussion of future waste production from the debate. But a decision on how to deal with present nuclear fuel waste is interconnected with the future of nuclear power.
- 1st: A decision to move toward doing something longer-term with the waste had been seen as necessary in order to promote new nuclear power plants. But I think it is not seen as so necessary now.
- 3rd: There are technical feasibility questions, social acceptability concerns, political connections, economic consequences. Come on! We are seeing that the potential impacts of future waste production keep coming up in our assessments.
- 2nd: We have our task to do. And we've been told to deal only with the present waste.
- 3rd: So, is it justifiable to isolate the present waste in this way? The impacts of future nuclear waste production on the waste management keep being brought up in public consultations. It's clear they factor into social acceptability. Is it ethical to exclude aspects that society sees as necessary in the discussion?
- 1st: Now let's not get waylaid by ethical considerations. Get on task. Where did we get on calculating the number of years for all the nuclear fuel waste to be transported to the disposal site?
- 3rd: If you are talking all the waste in this scenario, it is still being transported 175 years from now.
- 2nd: Just from existing plants!

SESSION 3: BRINGING THE ONE EARTH COMMUNITY TO THE TABLE

Objectives

- To help individuals and groups recognize that nuclear issues affect them, and to encourage them to bring their concerns and ethical considerations into public discussions.
- To reflect on nuclear power issues using the One Earth Community ethical principles.

This could be in preparation for participation in the NWMO implementation consultations or environmental impact assessment hearings on proposals related to nuclear power.

Background

You are not alone in your concerns about nuclear issues. The production and use of nuclear fuels are interconnected with a host of specific and inter-related concerns. Different groups will have different nuclear issues that challenge their communities and those with whom they are in solidarity. While some communities are affected more directly than others, these issues affect us all.

Aspects of nuclear wastes have a presence across Canada. Canadians pay large sums through their tax dollars to subsidize nuclear power. We are also exposed to the risks, including regulated exposures, background radiation, radioactive goods, contaminated food, and military applications of radioactive materials.

As a faith community, we can support one another in making consumer lifestyle decisions and energy choices. We can push for public debate on nuclear issues and speak to these issues in public consultations. It may seem intimidating, frustrating, and perhaps divisive to bring different perspectives forward within the church. Yet, it is through discussion about nuclear issues with humility, openness, and respect for one another that we come to understand different views and the considerations that need to be brought to public discussions.

(For in-depth background, see *Leader's Guide*.)

Workshop Agenda

Materials

- Distribute handout: “Opening Prayers,” page 28
- Bring flipchart/sheets from Session 1 of worldviews, values, and concerns; and summary sheet from Session 2
- Have available *Voices United* hymn books; glasses and water

Call to Workshop (15 minutes)

- Welcome and introductions
- Opening prayers (page 28)
- Present a very brief review of the main points by the group during workshops on Session 1 and Session 2, with opportunity for those who were not in previous sessions to connect.

Kitchen Table Talk (20 minutes)

True or false (page 29): Read a statement, and give everyone an opportunity to respond. When the group has decided if the statement is true or false, the leader reveals the answer with an explanation as needed.

Discuss points that arise during people’s responses.

Faith Community Dialogue (30 minutes)

Dialogue Starters: Within the church there is a diversity of views about nuclear issues. Be open and respectful of sharing as you consider some issues. (If needed, dialogue starter suggestions are provided on page 30).

If there is an aspect of nuclear fuel production and use that is a direct concern, divisive in the community, or in which the group has a particular interest, try to look at it from at least two perspectives. (See the list of some of the nuclear projects, activities, and issues that faced Canada recently on pages 30–31).

Break into groups small enough to allow everyone to enter the dialogue.

Record the main points. Then reflect on these main points using the experience of working with the One Earth Community through Sessions 1 and 2.

Come together to share and continue the discussion.

—Break—

Lessons Learned through Action (30 minutes)

Background

Present a brief overview of the valuable contributions that people of faith bring to public consultations. (See *Leader's Guide*, "Around the Table as a Faith Community," pages 31–33, and the opening of "At the Public Consultation Table," page 33.)

Lessons Learned from Partnerships and Actions in Solidarity

Offer the opportunity for participants to share their experiences and contacts for partnerships and action in solidarity.

Lessons Learned from Public Consultations

Present a brief summary of some points related to implementation and siting of long-term nuclear fuel waste management brought forward by the United Church at consultations. Describe questions raised by the United Church at public consultations and some sources of other points and questions that are relevant. (See *Leader's Guide*, "At the Public Consultation Table," pages 33–38, and "Frequently Asked Questions That Remain Relevant," pages 38–39.)

Take time for participants to share their experiences from consultations about siting nuclear facilities, implementation by NWMO of Adaptive Phased Management of nuclear fuel waste, or other recent consultations on nuclear issues.

Moving to Action (15 minutes)

- Two-minute silent prayer: listening to the Spirit
- Discuss action that members as individuals and the United Church (from congregations to General Council) could take on issues important to the group. Consider these:
 - continue a dialogue to bring divisive issues into prayerful, respectful discussion
 - prepare a resolution on new or revised United Church policy
 - offer support (prayer, people, specific resources) to a community struggling with radioactive waste issues
 - let other United Church congregations know your community's struggles with nuclear issues and ask for support (specify what kind)
 - contact General Council for help with leadership and resources on the issues
 - participate in the Re-energize campaign with a local KAIROS group
 - form a task group on the issues of concern to ask for and participate in public consultations at local, regional, and national levels
 - let local government, MLA, MP, NWMO, CNSC, Natural Resources Canada, Health Canada, Environment Canada, Transport Canada and others know that you have an interest or concern about specific issues
- Decide on some specific action as individuals and/or as a group. If it is a group action, collect names and contact information of those interested; decide on a follow-up meeting date, time, and place; and have someone commit to organize it.

Closing hymn: "What Does the Lord Require of You" (*Voices United* 701)

Opening Prayers

Psalm 100, “Make a Joyful Noise” (*Voices United* pages 820–821)

Leader: Refrain

All: (*respond with verse 3*)

Hymn: “In the Bulb There Is a Flower” (*Voices United* 703)

Call to Confession

Reader: We confess that often we have approached a table of dialogue without love for all others at the table and without hope for a better tomorrow. We confess that often we have failed to be people of Faith.

All: In times of fear, in times of insecurity,
when words fail and thoughts are unclear;
In times of frustration, in times of intimidation,
when words are hurled and thoughts crush upon us;
So many times we have forgotten that You, O God, are always with us,
that all people are equal, all Creation is Yours,
that with You, in You, through You is the way
for discernment, understanding, and strength,
to bring peace, safety, justice, and sufficiency for all.
Help us, O God, to work toward healing our troubled selves
and our troubled world.

Assurance of Forgiveness

Leader: There is strength in our faithfulness and power that is love.
Let us read together:

All: (read Psalm 31, part 1, *Voices United* page 758)

Hymn: Psalm 91, refrain: “And I will raise you up on eagle’s wings” (*Voices United* page 807)

Leader: Let us join together in an alternate version of the Prayer of Jesus:

All: (read “A Paraphrase (Eternal Spirit...),” *Voices United* page 916)

Closing hymn: “Wellspring of Wisdom” (*Voices United* 287)

Kitchen Table Talk: True or False

1. In Canada, we are exposed to only a natural background of ionizing radiation. **[false]**

Human-made and human-released background radiation bring the average total exposure in Canada to almost double that of natural sources. (*Leader's Guide*, Session 3, Background Radiation, page 28)

2. Low-level radioactive metal from nuclear facilities is being mixed with regular scrap metal and entering the international metal market. **[true]**

Radioactive contaminated metals could become part of our everyday use, adding to our exposure to chronic low levels of ionizing radiation. (*Leader's Guide*, Session 3, Radioactive Goods, page 29)

3. When nuclear fuel waste reaches the radioactivity of uranium ore, it is still so hazardous that it requires containment and isolation. **[true]**

While the radioactivity of nuclear waste decreases over time, it persists indefinitely. Relating nuclear fuel waste to uranium ore gives a comparison to a known substance, not to a level of safety. (*Leader's Guide*, Session 2, Nature of the Hazard, page 17)

4. If there is a nuclear accident that affects another country, Canada would be required to accept imports of food with radioactive contamination from that country, up to a maximum level of contamination set by regulations for nuclear emergency situations. **[true]**

There is no completely safe level of contamination of food and water with radioactive elements, so the decisions made by regulators are a balance of risks and costs. (*Leader's Guide*, Session 3, Contaminated Food, page 39)

5. Every province and territory of Canada has some activity related to nuclear fuel production or use. **[true]**

This includes uranium mining and milling, fuel fabrication, nuclear power stations, use of power from a nuclear station in another province, research reactors, and presence of uranium deposits in which there is renewed mining interest. (*Leader's Guide*, Session 3, By Location, page 27)

6. The nuclear industry is not allowed to release any radioactive waste into the air, soil, or water. **[false]**

Regulations set guidelines for releases based on an associated risk of human fatal cancers or serious genetic effects deemed acceptable by the regulator. (*Leader's Guide*, Session 3, Regulated Exposures, Background Radiation, pages 28–29)

7. We, the Canadian taxpayers, are responsible for financial support of the corporation Atomic Energy Canada Limited, which has cost billions to date. **[true]**

Canadians pay large sums through their tax dollars to subsidize nuclear power. (*Leader's Guide*, Session 3, By Cost, page 27)

8. The Nuclear Liability Act protects the operators of nuclear facilities and transfers most of the liability for a nuclear accident to the Canadian taxpayers. **[true]**

Given the potential consequences of a nuclear accident, this Act leaves the taxpayer carrying huge liability. (*Leader's Guide*, Session 3, By Cost, page 27)

9. As long as an additional exposure to radiation is less than the background radiation, it is safe. **[false]**

Any additional exposure to ionizing radiation carries an additional risk of damage. (*Leader's Guide*, Session 3, Background Radiation, page 28)

10. You cannot detect radioactivity or other forms of ionizing radiation with your senses. **[true]**

It has no perceptible taste, smell, sound, or feel. (*Leader's Guide*, Session 3, Background Radiation, page 28)

Dialogue Starters

If needed, two pairs of statements are offered as suggestions to focus group discussion on seeing issues from different perspectives:

- 1a. It is our responsibility to take care of the nuclear fuel waste, once and for all, and deep geological disposal is the closest we can get to meeting that responsibility. If we do the best we can, then it is responsible to keep using nuclear power.
- 1b. That responsibility is beyond our ability, and disposal is an approach with its own set of burdens and risks for future generations. The first step should be to stop producing the waste so we limit the burden.
- 2a. They tell us it's safe; they tell us there are jobs—we need jobs. They tell us it will bring money into the community—look at this community, we need the money! And they tell us we have some time to check things out, and then whether or not to offer to host the nuclear fuel waste facility will be decided by a local process.
- 2b. What are the real number of long-term local jobs, the total losses and real benefits, and how is the decision going to be made and by whom? Don't be fooled by the word “host”; these nuclear fuel wastes are not guests that are going away. These wastes will change over time, but they remain a hazard with us and all future generations—and they cannot be contained and isolated in a disposal area indefinitely.

Some recent nuclear projects, activities, and issues in Canada:

- Bruce Power Inc. proposal to construct and operate up to four nuclear power generating stations in Kincardine, Ontario
- Application for potential construction of new nuclear reactors on land adjacent to Lac Cardinal, near town of Peace River, Alberta
- Adapted Phased Management selected by the Minister of Natural Resources Canada as the long-term management approach for nuclear fuel waste
- Refurbishment at Point Lepreau, New Brunswick, and discussions on Point Lepreau II for export of power to U.S.
- Refurbishment of Pickering B reactors, Ontario
- Gentilly-3 expansion of radioactive waste storage capacity and potential refurbishment, Quebec
- Long-term low-level radioactive waste management project, Port Hope, Ontario
- Proposal for deep geological repository within Bruce Nuclear Site, Kincardine
- Zircotec Precision Industries Inc. proposal for SEU (slightly enriched uranium) CANDU fuel production at its facility in Port Hope (1% U-235)
- First Nations blockade to protect Algonquin First Nations' territory at Sharbot Lake in Eastern Ontario from prospecting and potential uranium mining
- AREVA Resources Canada Inc. proposal to mine a uranium ore deposit as an open pit mine at its Midwest location; to expand its McClean Lake mill; to mine uranium ore deposit in northern Saskatchewan

Session 3: Bringing the One Earth Community to the Table

- Drafting of regulatory document “Site Evaluation for New Nuclear Power Plants”
- Drafting of regulatory guide “Guidelines for Testing Emergency Measures”
- Formulation of regulations with respect to “Control of the Export and Import of Risk-Significant Sealed Sources” (i.e. radioactive elements)
- Acceptance of or amendments to financial guarantees related to nuclear facilities
- Decommissioning, construction, new licence, and other activities, including the shutdown of production of radioactive isotopes at Chalk River
- The controversial firing of the Chair of the Canadian Nuclear Safety Commission by the Minister of Natural Resources
- Renewals, amendments, and suspension of various operating licences

The Canadian Nuclear Safety Commission provides information on many of these and other related issues. See www.nuclearsafety.gc.ca

Further Resources

Assembly of First Nations (www.afn.ca)

Information on environmental stewardship from First Nations' perspective; specific information on nuclear waste dialogue at www.afn.ca/article.asp?id=2395

BEIR Reports (<http://books.nap.edu>)

National Research Council (Committee on Biological Effects of Ionizing Radiation and other committees) on health risks from low-level radiation [BEIR V(1990) and BEIR VII(2006)] and on health risks from radon [BEIR IV(1988) and BEIR VI (1999)].

Canadian Coalition for Nuclear Responsibility (CCNR) (www.ccnr.org)

Articles on uranium, nuclear reactors, radioactive wastes, radioactive weapons, and more.

Canadian Environmental Assessment Agency (CEAA) (www.ceaa.gc.ca)

Source for reports from past assessments and information on present proposals.

Canadian Nuclear Safety Commission (CNSC) (www.nuclearsafety.gc.ca)

Information on nuclear energy and radioactive materials issues under consideration, e.g., public hearings, proposal screening, licensing, regulatory documents. Subscription available for notices.

CARL (www.carl-research.org)

Social science project concluding report and 6 thematic reports are expected in 2008: effects of stakeholders' involvement on decision-making in nuclear waste management.

Climate Action Network–Réseau Action Climat Canada (www.climateactionnetwork.ca; www.reseauactionclimat.ca/f/)

Source of information on member groups' positions, programs and current campaigns on energy and climate change subjects.

Community Coalition Against Mining Uranium (CCAMU) (www.ccamu.ca)

Information, community effort, and Grandma Donna put the human face on the issues.

Conservation Council of New Brunswick Inc. (<http://conservationcouncil.ca>)

Source of information specific to N.B. and general information such as http://conservationcouncil.ca/archives/2007/pdf/Uranium_backgrounder.pdf

David Suzuki Foundation (www.davidsuzuki.org)

Information on climate change and energy issues, including nuclear power.

Energy Probe (<http://energyprobe.org>)

Relevant information throughout the website as well as "Nuclear Power" section.

European Committee on Radioactive Risk (ECRR) (www.euradcom.org)

Free reports Chernobyl: 20 Years On and Criteria for Clearance: Controlling the Release of Solid Materials of Very Low Average Activity for Re-use, Recycling and Disposal.

Greenpeace Canada (www.greenpeace.org)

Articles, actions, and a short history of nuclear power on video.

Health Canada (www.healthcanada.gc.ca)

Source of information on the guidelines for radionuclides in food and water. Updates on guidelines for drinking water quality are at www.healthcanada.gc.ca/waterquality

Heinrich-Böll Foundation (www.boell.de/nuclear)

Relevant publications, including Nuclear Power-Myth and Reality Series as free download at http://ibt.afrihost.com/boellor/files/nuclearpower_mythandreality.pdf

Inter-Church Uranium Committee Educational Co-operative (ICUCEC) (www.icucec.org)

Information on many aspects of nuclear fuel production and use. Popular educational resources.

International Atomic Energy Agency (IAEA) (www.iaea.org)

Information on their work promoting the uses of nuclear science and technology, safeguards, and security. Extensive list of publications.

International Institute of Concern for Public Health (IICPH) (www.iicph.org)

Free access to reports and books on ionizing radiation issues; use “Find...” Offers a collection of material by Dr. Rosalie Bertell, including a large excerpt from No Immediate Danger: Prognosis for a Radioactive Earth.

KAIROS: Canadian Ecumenical Justice Initiatives (www.kairoscanada.org)

Policies, educational, and background materials for the ecumenical Re-energize campaign.

MiningWatch Canada (www.miningwatch.ca)

Information on specific situations and history of uranium mining in Canada at www.miningwatch.ca/index.php?/?/Uranium

National Council on Radiation Protection and Measurement (NCRP) (www.ncrponline.org)

Only executive summary and table of contents are freely accessible for most publications; example: NCRP Report No. 141 (2002) Managing Potentially Radioactive Scrap Metal

Natural Resources Canada (NRCan) (www.nrcan.gc.ca)

Responsibilities include mining, energy, Atomic Energy Canada Ltd; legislation and documents related to nuclear fuel waste are under Nuclear Fuel Waste Bureau (www.nfwbureau.gc.ca/English/View.asp?x=625)

Northwatch (www.web.ca/~nwatch)

Environmental and social justice issues with the focus on Northern Ontario; nuclear waste issues at www.web.ca/~nwatch/nuclear_waste

Nuclear Energy Agency (NEA) (www.nea.fr)

Information on the scientific, technological and legal bases for the use of nuclear energy; an agency of the Organisation for Economic Co-operation and Development (OECD).

Nuclear Waste Management in Sweden Document Archive (www.nuwinfo.se)

Extensive accessible collection. Documentation from 2007 Conference “Coping with Nuclear Waste” at www.nuwinfo.se/waste2007documentation

Nuclear Waste Management Organization (NWMO) (www.nwmo.ca)

Extensive material; Submissions Library has all submissions by the United Church. As this resource went to production, new NWMO paper, Preparing for Implementation, was posted at www.nwmo.ca/Default.aspx?DN=1616,1554,1,Documents

Oxford Research Group (ORG) (www.oxfordresearchgroup.org.uk)

Information toward a more sustainable approach to security; publications listed under “Secure Energy” address nuclear issues at www.oxfordresearchgroup.org.uk/work/global_security/energy.php

Pembina Institute (www.pembina.org)

Series of uranium and nuclear power publications available including full report: Nuclear Power in Canada: An Examination of Risks, Impacts and Sustainability at www.pembina.org/pub/1346

Port Hope Community Health Concerns Committee (www.porthopehealthconcerns.com)

Information on the reality of living with the industries’ radioactive wastes. Information on the revealing book, *Port Hope Canada’s Nuclear Wasteland* by Pat McNamara.

Seaborn Panel: Oral presentations to the panel (www.ceaa.gc.ca/010/0001/0001/0012/0002/transcripts_e.htm)

The transcripts of proceedings of the Public Hearings are accessible, however, the collection of written submissions are not posted.

Sierra Club of Canada (www.sierraclub.ca)

Many articles on nuclear issues, most on nuclear-free Canada at www.sierraclub.ca/national/programs/atmosphere-energy/nuclear-free/index.shtml

Sustainable Development Commission UK (SDC) (www.sd-commission.org.uk)

Several publications on nuclear power, notably *The Role of Nuclear Power in a Low Carbon Economy* and eight supporting research papers at www.sd-commission.org.uk/pages/nuclear.html

Swedish National Council for Nuclear Waste (KASAM) (www.sou.gov.se/kasam/inenglish/)

A selection of translated reports including *Nuclear Waste State-of-the-art report 2007: Responsibility of Current Generation, Freedom of Future Generations* (companion in-depth reports available in 2008): www.sou.gov.se/kasam/reports

The Lean Economy Connection (www.theleanconomyconnection.net)

Free downloads of their publications including David Fleming’s *Energy and the Common Purpose* and *The Lean Guide to Nuclear Energy: A Life Cycle in Trouble*.

The United Church of Canada. (www.united-church.ca)

Website will be updated with relevant policies and reports, and links to Conference websites. Also find related guidance such as: *Advocacy and Action: Lobbying Your Member of Parliament* at www.united-church.ca/getinvolved/takeaction/#studies

United Nations Framework Convention on Climate Change (www.unfccc.org)

All documents related to the Convention and to the Kyoto Protocol, as well as reports from all UN climate change conferences, including the Bali Roadmap, as well as the Assessment Reports of the Intergovernmental Panel on Climate Change are available on this website.

World Council of Churches (www.oikoumene.org)

Website contains policies, statements, reports on ecumenical involvement in ecological issues, including nuclear energy and climate change.