The Ethics of Innovations in Alternative Service Delivery:

The Case of the Management of Canada's Irradiated Nuclear Fuel

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Normative or ethical approaches to the analysis of government are under-represented in the innovation literature and, more generally, in the public policy and public administration literature. Yet, in the contemporary world, there is a growing imperative to investigate and evaluate the values underlying and operating within our public bodies. More and more, governments are making and implementing policy to regulate aspects of science, technology, and the environment that will affect the well-being of both existing and future generations. Related policy decisions are based often on the scientific knowledge provided by the elites of these fields and the interests of representatives of associated industries and officials from relevant government departments. Such decisions are made often to the exclusion of a broader set of interested parties. The institutions established by policy to manage public goods and deliver public services specific to these areas, moreover, increasingly operate beyond the purview of adequate means of public oversight. Policy in areas such as nuclear waste management can affect the lives of so many in ways unimaginable 100 years ago; yet such policy is formulated and implemented in processes that exclude the values and interests of many stakeholders. There is a certain imperative to investigate and evaluate the normative basis of this kind of public policy if we are concerned about its ramifications on our well-being and the well-being of our posterity– if, in other words, we are concerned with its ethical implications.

In this paper, I examine the normative foundations of Canada's used nuclear fuel management policy,[1] with specific reference to the future waste management organization (WMO) that will be charged with responsibility of policy implementation. This case exemplifies the ethical imperative to investigate and evaluate the normative basis of public policy that establishes innovative service delivery organizations designed to increase the economy and efficiency of government. Indeed, Canada's policy on high-level radioactive waste management is typical of recent efforts aimed at streamlining the operations of government in that it embodies a tension between what are sometimes competing sets of values– i.e., those of business and those of justice. The division of responsibilities between the government and the future WMO articulated in this policy can be conceptualized as representative of the "policy-operations" divide that characterizes many new public management reforms. This divide is designed, in part, to cut the costs of service delivery. To be sure, this is a positive aim. However, a consequence of this divide is that it raises difficult questions about the transparency and accountability of the alternative service delivery model. It serves in establishing a private corporation that will be charged with the responsibility of a public service– i.e., managing used nuclear fuels in a way

[1] Canada's policy, in its basic form, is composed of three statements: The federal Policy Framework for Radioactive Waste of 1996, the Federal Government Response of 1998 to the Recommendations of the Nuclear Fuel Waste Management and Disposal Concept Environmental Assessment Panel (Seaborn Panel), and the proposed Nuclear Fuel Waste Act (Bill C-27), which

that does not, directly or indirectly, pose undue burdens upon ourselves or our posterity– but that will operate beyond the spectrum of established means of public oversight.

Members of the policy community around nuclear waste management voice often incommensurate perspectives on these institutional arrangements. I investigate some of these voices, heard in policy statements, discussion papers, public submissions, and one-on-one interviews, to come to a better understanding about the relationship, entrenched in the normative foundations of the future WMO, between the values of business– i.e., economy and efficiency– and the values of distributive justice– i.e. values about the distribution of the benefits and burdens of social cooperation in a way that does not unduly violate the equal rights of persons to primary social, economic, and environmental goods. As I understand them, values of distributive justice can be understood to include those of accountability and transparency. These are instrumental values in that they are means to ensuring that rights to the basic primary social, economic, and environmental goods are upheld or, at least, not violated. For John Rawls, primary social goods are those basic rights and liberties that provide the individual with the requirements for political is currently awaiting its third reading in the Lower House.

Canada has been producing nuclear energy and, by extension, high-level radioactive waste since 1962. Currently, approximately 13% of energy generated in Canada is nuclear. Forty-three percent of the electricity needs of the Province of Ontario is met by nuclear generation. New Brunswick generates 21% of its electricity from nuclear fission, while Quebec generates 3% from this source. The electric utilities, Ontario Power Generation Incorporation (OPG), New Brunswick Power Corporation (NBP), and Hydro-Québec (HQ), own the CANDU (Canadian Deuterium Uranium) reactors, as well as the radioactive waste materials produced by these reactors, in their respective provinces. The 20 reactors in Ontario have produced about 90% of Canada's used nuclear fuel, while the reactor in New Brunswick and the reactor in Quebec have produced about 8 percent. Two percent of Canada's nuclear fuel waste has come from prototype and research reactors owned by Atomic Energy of Canada Limited (AECL). About 1.3 million bundles of nuclear fuel waste have been produced to date by all 22 CANDU reactors in Canada. Tightly stacked, these would fill 3 hockey rinks up to the top of the boards. See NRCan, *Quarterly Report on Canadian Nuclear Power Program* (Ottawa: Government of Canada, March 1999). autonomy.[2] These goods, which have a use, "whatever a person's rational plan of life," include rights and liberties, powers and opportunities, income and wealth, and, ultimately, the basis of self-respect.[3] Others have extended the category of primary social goods to include basic environmental goods. Thus, Brian Barry bases, in part, his argument for distributive justice across time on the vital necessities of human life including "adequate nutrition, clean drinking-water, clothing and housing, health care and education, [and] the possibility of living in a world in which nature is not utterly subordinated to the pursuit of consumer satisfaction."[4] David Miller, arguing that theories of justice among contemporaries

[2] Rawls, *A Theory of Justice* (Oxford: Oxford University Press, 1972).

[3] Ibid., 62.

[4] Barry, "Sustainability and Intergenerational Justice," *Fairness and Futurity: Essays on Environmental Sustainability and Social Justice*, ed. Andrew Dobson (Oxford: Oxford University Press, 1999), 105.

have largely ignored environmental issues, seeks to integrate environmental values into the theory of social justice as it applies for both contemporaries and future peoples.[5] According to Miller, environmental goods, are to be understood in as "wide and loose a sense as possible to include any aspect of the environment to which a positive value may be attached, whether a natural feature, a species of animal, a habitat, an ecosystem, or whatever."[6] He argues that we should incorporate environmental goods into the distributive calculus for the "creation of environmental goods and bads may disturb the fair assignment of resources or other primary goods, as when the pollution you generate lowers the value of my land..."[7]

For Rawls and others working within the distributive paradigm, primary social goods are distributed by the basic institutions of society. Principles of justice entrenched in our institutions are designed to reduce conflict around these social goods and to achieve, at a minimum, political stability. Ideally, such principles assign rights and duties in a way that enables individuals in any situation, present or future, to apprehend clearly and either to exercise or fulfill their respective entitlements and requirements. By clearly laying out the basis for either the fair, impartial, or equitable distribution of rights and obligations, a theory of justice provides stable access to the social goods needed for individuals to advance on their chosen life paths. For Rawls and others, a conception of justice should provide the means toward not only a just society for today, but also for tomorrow.[7] The transparency and accountability of the institutions delivering our public services enable us to see if principles of justice, and corresponding rights and obligations, are being upheld in the activities of government, including both the formulation and implementation of public policy, as well as the delivery of public services.

The basic ethical assumption of this paper is that public sector innovations based on values of business ought to be coupled with legislative or regulatory assurances that values of distributive justice will be upheld in the delivery of public services. Where the responsibility for the delivery of a public service is assigned to a private corporation, it should be required by law that the corporation is subject to public oversight. Where an entity is charged by government with the responsibility of delivering a public service, it should have institutionalized means of ensuring that the public is able to see how it is fulfilling its responsibilities. These assurances ought to be expressed in terms of guarantees of transparency and accountability entrenched in law. Drawing from numerous materials, including recent interviews with selected stakeholders, submissions to Natural Resources Canada (NRCan) on the options for federal oversight for the long-term management of nuclear fuel waste in Canada, and transcripts of hearings held by the federal Parliamentary Committee for Aboriginal Affairs, Northern Development, and Natural Resources on Bill C-27, that is, the proposed Nuclear Fuel Act, I trace the concerns raised regarding the transparency and accountability of the future WMO. While forceful responses to

[5] Miller, "Social Justice and Environmental Goods," *Fairness and Futurity*, op. cit., 151172.
[6] Ibid., 152. [7]Ibid., 159.
[7] Rawls, op. cit., 284-293. See also, Barry, "Circumstances of Justice and Future Generations," *Obligations to Future Generations*, eds. Richard Sikora and Brian Barry (Philadelphia: Temple University Press, 1978); Idem, "Sustainability and Intergenerational Justice," op. cit.; and Avner de Shalit, *Why Posterity Matters: Environmental Policies and Future Generations* (London: Routledge, 1995).

these concerns are voiced, they do not speak to the imperative that, where a public service is delivered, the entity delivering the service ought to be open and accountable to the public. The priority of business values underlying this policy is thus difficult to defend from an ethical perspective.

Bill C-27 can be understood as the culmination of many years of scientific research and development, public environmental assessment hearings, and political negotiations among government and nuclear industry representatives. In 1977, the Federal Department of Energy, Mines, and Resources released a report entitled "The Management of Canada's Nuclear Wastes."[8] This report was intended as a contribution to the development of high-level radioactive waste management policy, "and in particular, as a means of ensuring the input of advice and opinion from the private sector and the general public."[9] Its mandate was to describe alternative disposal options for these wastes, to examine public concerns regarding waste management, and to recommend the appropriate option to be pursued by Canada. Having surveyed various disposal options, including disposal in ice sheets, outer space, ocean plains, and geological formations, the report concluded that deep geological disposal was the most promising for detailed investigation.[10] The following year, the governments of Canada and Ontario formally accepted the report's recommendations, and directed AECL and Ontario Hydro to develop a concept for deep geological disposal.

After more than 10 years of research and development, AECL's concept of deep geological disposal was put to a public environmental assessment. In October of 1989, the federal Minister of Environment appointed an independent environmental assessment panel, chaired by Blair Seaborn, to conduct a public review of the concept. The mandate of the panel was to conduct a public review of AECL's concept in order to make recommendations "to assist the governments of Canada and Ontario in reaching decisions on the acceptability of the disposal concept and on the steps that must be taken to ensure the safe long-term management of nuclear fuel wastes in Canada."[11] The Panel held public scoping meetings to develop guidelines for AECL's environmental impact statement (EIS) in the autumn of 1990 in the provinces of Ontario, New Brunswick, Quebec, Saskatchewan, and Manitoba– that is, in the provinces that have constituents with interests in some aspect of the nuclear fuel cycle (e.g., uranium mining, uranium processing, fuel fabrication, or the nuclear generation of energy). The Panel finalized the guideline and issued them to AECL in March of 1992. In October 1994, AECL submitted its

[8] A. M. Aikin, J. M. Harrison, and F. K. Hare, *The Management of Canada's Nuclear Wastes: Report of a study prepared under contract for the Minister of Energy, Mines and Resources Canada*, Ottawa: Government of Canada, August 1977.
[9] Ibid, 1.
[10] Ibid., 6.
[11] Canadian Environmental Assessment Agency (CEAA), *Nuclear Fuel Waste Management and Disposal Concept: Report of the Nuclear Fuel Waste Management and Disposal Concept* (Ottawa: Minister of Public Works and Government Services Canada, February, 1998), 84.

EIS,[12] along with nine primary reference documents, to the Seaborn Panel. The public hearings themselves took place in 1996-97.

During these hearings, the Minister of Natural Resources Canada received and acted upon cabinet authority to develop a framework for all forthcoming policy on radioactive waste management. NRCan thus launched its own consultations with a group of selected stakeholders. In 1995, NRCan released a discussion paper on the development of a federal policy framework for the disposal of radioactive wastes in Canada to what it identified as the major stakeholders. These were representatives of governmental departments and agencies in the five provinces that have interests in aspects of the nuclear fuel cycle, the three nuclear utilities, uranium mining companies, nuclear fuel processing and fabrication companies, and nuclear interests groups. Of the 77 stakeholders consulted, the vast majority were representatives of government agencies and departments, 20 were representatives of the nuclear industry, and two were academics.[13] These consultations would provide the foundations for the Policy Framework for Radioactive Waste Management of July 1996. The Framework's basic financial and institutional principles would heavily inform future nuclear fuel waste management policy, including the Government Response to the Seaborn Panel Report of 1998 and the proposed Nuclear Fuel Waste Act of the 37th Parliament.

The Policy Framework's three basic principles are typical of the new public management genre. They are based on the assumption that the most effective way to secure economy, efficiency, and service quality in public sector management is to ensure that those primarily involved in the operational tasks of government are assigned explicit responsibilities and granted the necessary authority to fulfil these responsibilities. The Framework thus establishes the overarching policy objective of ensuring that radioactive waste disposal is carried out in a safe, environmentally sound, comprehensive, cost-effective and integrated manner.[14] It then goes on to outline the division of responsibilities between the government and the waste producers and owners. It holds that the federal government has the responsibility to develop policy, to regulate, and to oversee the activities of waste producers and owners, while the waste producers and owners are responsible for the funding, organization, management, and operation of a waste facility. Put more simply, the federal government is responsible for policy, while the waste producers and owners are responsible for operations.

What the Framework accomplishes is a balance between demonstrating federal leadership in a socially and politically sensitive policy area, and minimizing its direct responsibility for the management of a long-term solution to nuclear waste. The Framework sets federal policy objectives, while holding the producers and owners directly responsible for the management of

[12] AECL, *Environmental Impact Statement on the Concept for Disposal of Canada's Nuclear Fuel Waste* (Chalk River, ON: AECL, September 1994).

[13] See Appendix of NRCan, "The Development of a Federal Policy Framework for the Disposal of Radioactive Wastes in Canada: The Results of Consultations with Major Stakeholders," (October 1995) for a list of stakeholders consulted on the development of the Policy Framework.

[14] NRCan, "Backgrounder: Policy Framework for Radioactive Waste," www.nrcan.gc.ca/css/imb/hqlib/9894b.htm (Ottawa: Government of Canada, 1998).

their nuclear waste and, by extension, associated financial liabilities. Without an articulation of its policy objectives, the government would be limited in its role to the regulation by the Canadian Nuclear Safety Commission (CNSC) of the health and safety aspects of the future WMO's activities. Moreover, this regulation would be effective only after the WMO became a licensee of the CNSC, i.e., only after it had conducted a study of options for waste management, chosen an option, chosen an implementing time frame, and applied and received a license with which to implement its chosen option. In other words, the WMO would be left to make fundamental policy decisions about the preferred option for used nuclear fuels and about the timing of the implementation of this option. Articulating policy objectives, the government asserts a leadership role in the area of used nuclear fuel management.

Beyond this leadership role, however, the division of responsibilities within the Framework curtails the responsibilities of the federal government. While entrenching the federal government's responsibilities for the development of policy, and for the regulation of health and safety and for the policy oversight of a waste management entity, it also ensures that the government will not be directly responsible for any combination of siting, designing, constructing, and operating Canada's facilities for nuclear fuel wastes. The division of responsibilities implies that waste producers and owners will be responsible for these tasks. This division serves to minimize the risk of the federal government having to assume financial liability for any mishap in the management of these wastes.[15] According to the results of consultations with major stakeholders on the development of the Policy Framework, there was consensus that federal liabilities could "only be minimized by ensuring that a comprehensive disposal policy framework is established within which the roles and responsibilities of producers and owners are clearly stated."[16] As one representative of a waste-producing and waste-owning corporation put it, the analogy is letting a contract to a construction firm.[17] If one provides the firm not with the detailed specifications of the building under contract, but with basic requirements that it must meet, one will not be held responsible for any faults in the building's specific design. If the firm designs it, and its designs are faulty, then it bears the financial responsibility for these faults. Establishing a division of responsibilities between the federal government and the waste producers and waste owners, and granting the latter the responsibility of implementing options, the Policy Framework serves in establishing a relationship in which the federal government will not be held financially responsible for any liability that may occur in the management of used nuclear fuels.

Similarly, the financial responsibilities outlined in the Policy Framework provide the basis for assurances that the waste producers and owners do not by default transfer their liabilities to the federal government. The CNSC's regulatory authority to require a fund to finance fully all operations of the WMO is effective, again, only after the WMO applies and receives a licence. Thus, prior to it becoming a licensee, the future WMO would be under no obligation to set aside money for future waste management activities. The Policy Framework

[15] Interview 050, 20 August 2001.
[16] NRCan, "The Development of a Federal Policy Framework for the Disposal of Radioactive Wastes in Canada: The Results of Consultations with Major Stakeholders," (October 1995), 7.
[17] Interview 043, 14 August 2001.

clearly establishes the responsibility of the waste producers and owners to fund waste management and/or disposal activities, in accordance with the "polluter pays" principle.[18] As Peter Brown of NRCan states, "From a policy point of view, we feel that we want to make sure that those monies are indeed put away appropriately so that when disposal occurs...there are indeed funds available to do so."[19] He goes on: "What we are trying to avoid is the tax-payer having to pick up the tab because somebody goes bankrupt and all of a sudden there is a waste problem."[20] Thus, in two ways– i.e., one, by ensuring that the government is not responsible for the organization, management, and operation of disposal facilities and, two, by ensuring that the government is not responsible for funding these facilities– the Policy Framework serves in minimizing financial liabilities defaulting to the federal government.

The division of responsibility may also be understood as an effort to provide for the most cost-efficient way of managing high-level wastes by delegating management responsibility to a private, industry-formed and funded, organization. With efficiency in mind, certain stakeholders point to international experiences with institutional and financial arrangements for waste management. They point, for example, to the mismanagement by the Federal Department of Environment (DOE) of funds for waste management and decommissioning in the U.S. The U.S. Nuclear Waste Policy Act of 1982 deems the DOE the department responsible for the management of radioactive waste, from national weapons-production facilities and from U.S. commercial facilities, using funds from general revenues. This institutional arrangement is seen as inefficient by certain stakeholders. As one employee of a Canadian nuclear utility put it, for examples of inefficiency, "you don't have to look very far. Just south of the border, you've got a government agency who is spending massive amounts of money [on waste management]."[21] According to Colin Hunt, the director of policy for the Canadian Nuclear Association, the basic problem in the U.S. is that "the people paying for waste disposal are not the ones charged with doing it."[22] As per the results of consultations with selected stakeholders on the development of the Policy Framework, a majority of core stakeholders held that there are "existing private sector organizations with the knowledge and experience that could provide the services to the federal government, and there was little support for the suggestion that the federal government be involved in organizing and managing disposal facilities."[23] It is thus arguable that the division of responsibility embodied in the Policy Framework is based, in part, on the belief that "the waste owners have a vested interest in [managing their wastes] efficiently."[24]

The assumptions of new public management are carried from the Policy Framework over into ensuing policy statements on high-level radioactive waste management and disposal in

[18] NRCan, "McLellan Announces Policy Framework for Radioactive Waste," Press Release of 10 July 1996 (http://nrn1.nrcan.gc.ca/css/imb/hqlib/9679.htm).

[19] Presentation to Nuclear Fuel Waste Management and Disposal Concept Environmental Assessment Panel, (Toronto: 21 November 1996).

[20] Ibid.

[21] Interview 054, 5 September 2001.

[22] Interview 046, 15 August 2001.

[23] NRCan, "The Results of Consultations with Major Stakeholders," op. cit., 5.

[24] Interview 054, op. cit.

Canada. Echoing the Framework, the Government Response to the Seaborn Panel holds that the federal government's objective is to "ensure that the preferred approach for the long-term management, including disposal, of nuclear fuel waste is carried out in a comprehensive, cost-effective and integrated manner."[25] In addition, it lays out expectations that the future WMO will "report to the Government of Canada setting out its preferred approach for the long-term management, including disposal, of nuclear fuel waste, with justification."[26] Also echoing the Framework the proposed bill states that the "purpose of this Act is to provide a framework to enable the Governor in Council to make, from the proposals of the waste management organization, a decision on the management of nuclear fuel waste that is based on a comprehensive, integrated and economically sound approach for Canada."[27] The bill then outlines these policy objectives in more specific terms with reference to the financing of the WMO and its activities, the study by the WMO of waste management options to be proposed to government, and the reporting of the WMO on its study's findings, and on its finances and operations. If the future WMO fails to fulfill these objectives, it stands to be punished. Thus, in sections 27 through 31, the bill lays out the details of the offences and punishment for falling short of these policy objectives.

With reference to the division of responsibilities in the Framework, the Government Response holds that the future WMO will be formed not as an agent of the Crown, nor at arm's length from the nuclear utilities,[28] as recommended by the Seaborn Panel.[29] It will instead be formed by the utilities, as a private entity, likely under general corporations law. And, as per the proposed bill, "the waste management organization is not an agent of Her Majesty in right of Canada."[30] With reference to financial responsibilities, furthermore, detailed requirements are put forth in sections 9 through 11 of the Bill C-27. For example, section 10 states that the nuclear energy corporations and AECL will deposit, "no later than 10 days after the day on which this Act comes into force," specific amounts in the waste management fund. The Government Response to the Seaborn Panel also holds that the waste management organization will be responsible for the appointing of its Board of Directors and its Advisory Council, which is contrary to what was recommended by the Panel. Not surprisingly, the bill is silent on the Board, and puts forth only minimal requirements for the WMO's Advisory Council.[31] Thus, echoing the Policy Framework, the Government Response and Bill C-27 are based on assumptions specific to new public management.

In addition to the policy-operations divide, the policy statements are characterized by a further quality common among reforms aimed at increasing the economy and efficiency of service delivery and the management of public goods. The quality is flexibility. Indeed, these policy statements provide the WMO with flexibility in terms of how their objectives are to be

[25] NRCan, "Government Response," op. cit., 5.
[26] Ibid.
[27] Bill C-27, 37th Parliament, S. 3.
[28] NRCan, "Government Response," op. cit., 7.
[29] CEAA, op. cit., 66-68.
[30] Bill C-27, op. cit., S. 6(3).
[31] See S. 8 of Bill C-27, op. cit.

met. As Grand Chief Matthew Coon Come of the Assembly of First Nations (AFN) remarks "'comprehensive, integrated, and economically sound,' can be interpreted in many ways."[32] He goes on: "The phrase is sufficiently broad and general to mean all things to all people, depending on the perspective one brings to the issue."[33] First nations, for example, might understand comprehensive and integrated to refer to the impact on "societies, cultures, and human health, the potential disruption of animal habitat" such that an approach to waste management is "holistic, environmentally sound, and sustainable."[34] Senior management officials of the future WMO might not interpret these objectives in this holistic way, and might thus put forth different waste management and disposal options.

Beyond providing flexibility to the future WMO in terms of interpreting policy objectives, the bill provides flexibility with respect to many of the waste management organization's responsibilities. The bill, while heavily prescriptive on issues relating to the finances of the future WMO, provides for few prescriptions regarding how the study of waste management and disposal options is to be conducted. It does specify that each proposed approach to either waste management or disposal "must include a comparison of the benefits, risks and costs of that approach with those of the other approaches, taking into account the economic region in which that approach would be implemented, as well as ethical, social and economic considerations associated with that approach."[35] But, it does not specify either the technical or the social and ethical requirements to be met by these approaches. Establishing the technical comparison criteria, formulating a social and ethical framework, and designing a public consultation plan, for example, are left to the responsibility of the future WMO. As stated in a secret memorandum to the cabinet from the Minister of Natural Resources, leaked to the press in late-1998, the more detailed and prescriptive the legislation, the higher the risk of federal financial liabilities.[36] Again, in line with assumptions associated with new public management, the current policy on used nuclear fuel waste establishes broad policy objectives, but is flexible on ways to meeting these objectives. A by-product of this flexibility is that it tends to blur the policy-operations divide.

What is established by the Policy Framework, the Response to the Seaborn Panel, and, if passed as is, the Nuclear Fuel Waste Act is an innovative entity that is charged with the responsibility of delivering a public service– i.e., delivering a safe and acceptable option for the long-term management of irradiated fuel– and managing a public good– i.e., managing used nuclear fuel in a way that does not pose undue burdens on existing and future generations– but that is a private company. It is a private, non-commercial, corporation that is formed, funded, and staffed by the nuclear utilities that is to interpret and meet broad policy objectives set by the

[32] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 November 2001 on Bill C-27 of the 37th Parliament (www.parl.gc.ca/InfoComDoc/37/1/AANR/Meetings/Evidence/aanre28-e.htm).
[33] Ibid.
[34] Ibid.
[35] Bill C-27, op. cit., S. 12(4).
[36] NRCan, "Memorandum to Cabinet: Response to the Federal Environmental Assessment Panel on the Nuclear Fuel Waste Management and Disposal Concept," (Ottawa: October 1998), 45.

federal government. While innovative, this model is potentially ethically problematic. The priority of the business values of economy and efficiency, upon which it is based, serves in pushing the operations of a used nuclear fuel facility and the delivery of management services beyond the realms of government. Although not necessarily doing so, this arrangement can raise questions about the transparency and accountability of the future entity. The problem with the current institutional arrangements for the future WMO, as per Bill C-27, is that it is not legislatively required to submit to adequate means of public oversight, nor is it directly accountable to a minister or Parliament. In the management of high-level radioactive waste, the values of economy and efficiency could thus trump the values of distributive justice.

Indeed, the activities and inactivities of the future WMO will have implications that could run counter to the just distribution of rights to basic primary goods. As an implementing organization, the future WMO will play a role in distributing benefits and burdens associated with nuclear energy and its irradiated fuel. It is conceivable that the WMO could implement policy in a way that effectively unjustly burdens certain people, extant or not yet extant. For example, the basic concern of mayors of communities currently hosting nuclear facilities is that the socioeconomic well-being of host communities could be affected unjustly by waste management decisions made without their involvement.[37] Hosting a nuclear facility involves costs of developing and having in place an emergency plan, maintaining a well-trained emergency response team and emergency measures office, as well as costs associated with the devaluation of property and the subsequent decrease in revenues from property taxes. Although Ontario Hydro and, more recently, OPG have compensated and continue to compensate them, host municipalities are at "a socio-economic and financial disadvantage."[38] If the future WMO decides to recommend to the federal government continued on-site storage of high-level radioactive waste, depending on how this decision is made, it could serve in effectively unjustly saddling the host municipalities with additional burdens. As Wayne Arthurs, Mayor of Pickering, ON, states:

> For as long as 40 years, the municipalities [of Clarington and Kincardine, and the City of Pickering] have served as so-called interim storage sites. With the legislation currently before us, there's every likelihood we would continue to serve as stop-gap storage sites for decades more. In effect, we would become the *de facto* permanent storage sites for nuclear waste without adequate scrutiny, consideration, or preparation for what that means in the longer term.[39]

While the proposed bill provides for policy oversight, i.e., oversight to ensure that the WMO meets broad policy objectives, and while the CNSC will provide regulatory oversight with reference to health and safety requirements once the WMO is a licensee of the Commission, this policy provides for little direct public oversight to provide some assurance that the activities of

[37] Interview 061, 17 January 2002, interview 062, 18 January 2002, and 1 February 2002.
[38] Wayne Arthurs quoted from transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 8 November 2001 on Bill C-27 of the 37th Parliament (www.parl.gc.ca/InfoComDoc/37/1/AANR/Meetings/Evidence/aanre28-e.htm).
[39] Ibid.

the future WMO do not have implications that run counter to principles of distributive justice. Indeed, many stakeholders express the concern that the future WMO, as per Bill C-27, is not sufficiently transparent, nor clearly accountable to the Canadian public. Again, these mechanisms of public oversight will not necessarily ensure that the formation and implementation of policy will be just; but, they would provide us some ability to see if these processes of policy are just.

The major concerns expressed by the Assembly of First Nations (AFN), the Sierra Club of Canada, the Association of Nuclear Host Communities (ANHC), and federal opposition MPs, among others, bear upon the lack of transparency and accountability of the future WMO as required by Bill C-27. Some hold that these lapses could have been addressed by establishing the waste management entity as an agent of the Crown instead of as a private company formed by the nuclear energy corporations. Participants in the public consultations on the federal oversight options for the WMO, which took place in February 1999, argued that oversight objectives would be most effectively met if the government were to establish a Canadian Waste management Agency as a federal Crown corporation.[40] The general sentiment was that the "Crown Corporation would be responsible for managing nuclear fuel waste activities in an independent and impartial manner, would provide a vehicle for the management of other radioactive wastes, and would help to preserve and build on the assets that remain from the Canadian Nuclear Fuel Waste Management Program."[41] It would be a public body, existing to serve in the public good. It would report either directly to Parliament or indirectly to Parliament through a designated minister. As Grand Chief Coon Come voiced to the Parliamentary Committee reviewing Bill C-27, "we need to have some kind of public body, a public agency...because they're not representing an industry, they're not there to maximize the return on investment, they're not there to represent their shareholders, they're there to represent the public as a whole."[42]

Other stakeholders argue in concert with the recommendations of the Seaborn Panel that the future WMO should be, if not a Crown corporation, a corporation existing at arm's length from the utilities. The argument here is similar to that in favor of a Crown corporation: An independent agency would better serve the public interest. The nuclear utilities and AECL have a history of secrecy and have historically sought to advance narrowly defined interests, so the argument goes.[43] Thus, Lois Wilson, who was a member of the Seaborn Panel, highlights in her submission to the Standing Committee the Panel's reason for recommending an arm's length agency:

> The reason we made this strong recommendation– and there was unanimity about this– was that after a decade of hearings it became obvious to us that neither the

[40] NRCan, "Synopsis of Views on Options for Federal Oversight," Winnipeg Public Session (10 February 1999).
[41] Ibid.
[42] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 November 2001, op. cit.
[43] Interview 050, op. cit. and interview 056, 11 September 2001.

> utilities nor AECL enjoyed public confidence... We felt a higher degree of trust is necessary for any agency charged with a management function, and we felt the utilities and AECL had not had it. They received criticism for a lack of openness and transparency, insensitivity to a wide range of stakeholders, and failure to ensure adequate public participation in the process. ... We recommended that a fresh start be made in the form of a new agency, and Bill C-2 does not do that.[44]

And, with the Seaborn Panel Report, Brennain Lloyd of Northwatch argues that the industry-based WMO likely established by Bill C-27 "can only be problematic, in terms of...the ability to look more broadly at the issues, and the ability to engender public trust and engagement."[45] She argues that the waste management entity "must be an independent agency, and not an industry-only agency."[46]

Stakeholders voice more specific concerns regarding the lack of legislative requirements in Bill C-27 to ensure the institutional transparency and public accountability of the WMO. Thus, concerns are expressed about the discretion that the waste management organization will have in appointing both its Board of Directors and its Advisory Council. Although the Seaborn Panel recommended that these bodies be appointed by the federal government, as per the Policy Framework, the Government Response to the Seaborn Panel, and Bill C-27, they are to be appointed by the shareholders, i.e., the nuclear energy corporations. At all of the public consultations on options for federal oversight, held during 1999, such concerns were raised. According to an NRCan document, entitled "Synopsis of Views on Options for Federal Oversight," participants "felt strongly that the Board of Directors of the waste management organization should be expanded to include the public in order to ensure transparency in decisionmaking and help to foster public trust."[47] "This point," it states, "was made at all of the other public sessions."[48] During the Parliamentary Committee hearings on Bill C-27, moreover, all federal opposition critics articulated concerns in these regards. They claimed that, without legislative requirements, the nuclear energy corporations would not necessarily appoint a wide range of representatives to sit on these bodies, but would appoint mainly those sympathetic to their interests.[49] David Chatters, MP for the Canadian Alliance, thus noted it would only "seem reasonable, that if the producers of the waste are establishing an advisory council, they would

[44] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 November 2001, op. cit.
[45] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 8 November 2001, op. cit.
[46] Ibid.
[47] St. John Public Session (15 February 1999).
[48] Ibid.
[49] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 20 November 2001 on Bill C-27 of the 37th Parliament (www.parl.gc.ca/InfoComDoc/37/1/AANR/Meetings/Evidence/aanre28-e.htm).

appoint people with the right expertise, but also people who would have some sympathy for the position of the industry."[50]

Such concerns were also expressed during these hearings by the AFN, the ANHC, Northwatch, and the Sierra Club. For example, in his submission to the Committee, Mayor Arthurs noted that the bill allows the WMO to have a board composed of "representatives exclusively from the nuclear industry."[51] He noted that there are no provisions requiring that seats be allocated to third parties such as municipalities presently hosting nuclear waste. Thus, he argued, "...we are directly representative of our constituency, [and] it's important in the public interest that there be representation at the highest possible level in an organization this complex and with such profound implications for our communities."[52] One of the key responsibilities of the future WMO will be to recommend to government one of three approaches to waste management. Continued storage at reactor sites in the municipalities of Clarington and Kincardine, and in the City of Pickering, is an option that could be recommended. Indeed, it may be the most economically and politically efficient of all three options to be studied. This recommendation could heavily influence the government's ultimate decision as to the option to be implemented. It could thus result in further socio-economic impacts on these host communities. Arthurs goes on: "It's very important for those who are so directly impacted to be able to influence a process and bring their point of view as close to the decision-making as possible." As more generally summed up by Gerald Keddy, MP for PC/DR, there are "some general concerns, certainly, on this side of the committee table, as to the municipalities, the regions, and the aboriginal communities– and the bill pays a certain amount of lip service to them– but there's absolutely nothing in the bill to ensure that they have some input..."[53] He states that there is "way too much corporate [and] ministerial power involved in this piece of legislation."[54]

A response to such claims is that the bill does not preclude a wide representation of interests on both the Board and the Advisory Council.[55] The nuclear energy corporations are well aware of the fact that, if the future WMO is going to be successful in implementing a chosen waste management option, it will have to be just and seen to be just. This, they hold, would involve representation in the future WMO. Moreover, it is noted that, in the Government Response to the Seaborn Panel, prescriptions are made with reference to the representation of the Advisory Council. Members of the nuclear industry note that the government expects there to be representation of affected interests in the WMO, and they suggest that these expectations will be

[50] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 1 November 2001 on Bill C-27 of the 37th Parliament (www.parl.gc.ca/InfoComDoc/37/1/AANR/Meetings/Evidence/aanre28-e.htm).

[51] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 8 November 2001, op. cit.

[52] Ibid.

[53] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 20 November 2001, op. cit.

[54] Ibid.

[55] Interview, 059, 5 November 2001.

met.[56] Finally, it is asserted that the shareholders of the future WMO should have the discretion to make its appointments. As a private company, it has a moral and legal right to do so. In addition, it makes good business to do so. Doing so ensures the accountability of the WMO to the shareholders who will be financing it. Indeed, a participant in the public consultations on the oversight role of the federal government argued that a wide representation of interests in the WMO would introduce "politics" into the activities of implementation.[57] In this view, "anti-nuclear advocacy groups should not be represented since their presence is inherently political and the purpose of the [WMO] will be to implement, not debate... To bring them into implementation would...present an unworkable situation for the implementation group."[58]

Concerns about institutional transparency and public accountability extend beyond the appointment of the Board of Directors and the Advisory Council. Many concerns are voiced about the insufficiency of public consultations and the lack of public participation required by Bill C-27 of the future WMO. As it stands now, the bill requires the waste management organization to consult the general public on each of its proposed approaches to nuclear fuel waste.[59] However, it does not require on-going consultations once the option for waste management has been selected and is being implemented. Moreover, while the Seaborn Report held that there should be "thorough public participation in all aspects of managing nuclear fuel wastes,"[60] the Bill is silent on the role of public participation. Other concerns bear upon the future WMO not being subject to the federal Access to Information Act (ATIA). Indeed, several participants in the public consultations on federal oversight options argued that the WMO should be subject to the ATIA.[61] As Wilson noted in her submission to the Standing Committee on Aboriginal Affairs, Northern Development, and Natural Resources, "We're also a little upset that the agency will not be open to federal access to information... ...the main problem we met in all our hearings was the secrecy surrounding this subject and the problem of getting accurate information from both the opponents and the proponents."[62] Still other concerns related to the WMO not being subject to the reporting of the Auditor General.[63] Joe Comartin of the NDP put forth an amendment to Bill C-27 to ensure that the WMO would be audited by the Auditor General. He stated:

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[56] NRCan, "Government Response," op. cit., 8.
[57] NRCan, "Synopsis of Views on Options for Federal Oversight," Saskatoon Public Session, op. cit.
[58] Ibid.
[59] Bill C-27, op. cit., S.7.
[60] CEAA, op. cit., 70.
[61] NRCan, "Synopsis of Views on Options for Federal Oversight," St. John Public Session, op. cit. and "Synopsis of Views on Options for Federal Oversight," Ottawa Public Session (17 February 1999).
[62] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 November 2001, op. cit.
[63] NRCan, "Synopsis of Views on Options for Federal Oversight," Saskatoon Public Session (9 February 1999); Idem, "Synopsis of Views on Options for Federal Oversight," Thunder Bay Public Session (11 February 1999); and, idem, "Synopsis of Views on Options for Federal Oversight," Ottawa Public Session, op. cit.

> ...the purpose of adding this amendment...is to have the Auditor General, who...is the person who traditionally would conduct these types of audits...
>
> Perhaps it goes back to what our responsibility is, so we know what's happening. It would give us one aspect of knowledge that this bill as it is now is lacking, because we don't get any particular information on how the trust fund is being managed..."[64]

It is argued, in response to these claims, that the ATIA and the Auditor General are neither the only means, nor the most effective means, of public oversight. As one individual employed by a utility put it, the WMO could opt for any number of auditing procedures.[65] She notes that many companies the management of which believes in being ethical and subscribes to ethical principles of environmental and social responsibility are developing processes of social auditing. These processes are said to be traceable and open. She asserts that there are "many different ways that a company can chose to operate if it wants to be perceived and to be ethical, open, and honest."[66] Other responses to such claims include the argument that the WMO will be subject to more stringent oversight mechanisms than that provided by the ATIA and the Auditor General. As put by Richard Dicerni of OPG in his submission to the Parliamentary Committee on Bill C-27, the Bill includes several mechanisms which will ensure transparency in the development and selection of a plan.[67] Thus he notes the following:

> First, the Bill requires the WMO to carry out public consultations before formulating a plan. Second, the WMO must also establish an Advisory Council, whose comments on the WMO's study and triennial reports are to be made public. Third, upon receipt of the WMO report, the Minister of Natural Resources may also undertake consultations. Fourth, the WMO's study and reports to the Minister must also be made public. Fifth, the option for managing used fuel waste selected by the Governor in Council will be subject to a federal environmental assessment required by the Canadian
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> Environmental Assessment Act. The EA will involve public consultations. And, sixth, if the EA is accepted, then the waste management plan will require construction and operating licenses under the Nuclear Safety and Control Act. This process will also involve public consultations.[68]

However, some stakeholders put forth additional concerns relating to the institutional transparency and public accountability of the future WMO, as per Bill C-27. These have to do with the reporting relationship between the organization and the federal government. As noted above, the waste management organization is required by the bill to report to the Minister of

[64] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 20 November 2001, op. cit.
[65] Interview, 059, op. cit.
[66] Ibid.
[67] Ibid.
[68] Ibid.

Natural Resources once a year on financial matters and once every three years on operational plans. Stakeholders claim that this reporting relationship may be insufficient to ensure adequate public oversight. Indeed, according to NRCan, many participants in the public consultations on federal oversight options "suggested that annual reports of the waste management organization be reviewed by Parliament and the public."[69] During the hearings of the Standing Committee on Bill C-27, moreover, the AFN, the ANHC, the Sierra Club, and Northwatch argued that the WMO should report to Parliament.[70] As Senator Louis Wilson remarked in her submission to the Standing Committee: "I've been in the Senate long enough to know that is not an adequate way to review anything. You get a statement by the minister, and maybe there are some questions. It needs to go to committees...for careful study."[71] All of the opposition members of the Committee put forth amendments in these regards.[72] As Keddy proposed: "Instead of everything being under ministerial control, the minister would certainly have the same access to it that he should have as minister in charge of the natural resources department, but parliamentarians actually would have access to it, too."[73] The WMO, he continued, "would table in both houses of Parliament a report of its activities, ensuring that we get the information. "[74] According to Keddy, the intent is

> that not just the minister should be allowed access to the report. Parliament should be allowed access to the report. This will therefore ensure that the public has access to the report, because there's absolutely no provision that the minister does or does not have to make a report on this. There is some question, at least in my mind, as to how soon– or even if– the minister would have to report to Parliament. If the waste management organization reports to Parliament, it's done.[75]

In response to these kinds of arguments, at least two points are made. On the one hand, it is held that the future WMO will be committed to and responsible for specific outcomes– i.e., the studying of high-level radioactive waste management options and the implementing of the chosen option– and that, as such, it will not be in its interest to be secretive. Thus, Dicerni states,

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[69] "Synopsis of Views on Options for Federal Oversight," Ottawa Public Session, op. cit. See also, NRCan, "Synopsis of Views on Options for Federal Oversight," St. John Public Session, op. cit.; Idem, "Synopsis of Views on Options for Federal Oversight," Thunder Bay Public Session, op. cit.; Idem, "Synopsis of Views on Options for Federal Oversight," Winnipeg Public Session, op. cit.; and, idem, "Synopsis of Views on Options for Federal Oversight," Saskatoon Public Session, op. cit.

[70] See transcripts of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 and 8 November 2001, op. cit.

[71] Transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 6 November 2001, op. cit.

[72] See transcript of Standing Committee on Aboriginal Affairs, Northern Development and Natural Resources hearing of 20 November 2001, op. cit.

[73] Ibid.

[74] Ibid.

[75] Ibid.

"We have no problem with providing reports to the minister, to the government, and keeping the public informed. If we don't do that, we will not get there [i.e., to our intended outcome]."[76] "On the other hand," he asserts, "some people have to be accountable for getting there, for achieving results, partially because...we're spending $100 million a year on this."[77] He goes on:

> If you do annual reports on a process for which other countries take seven, ten, fifteen years, these reports become sitting targets for charges of not enough consultation, inadequate involvement, superficiality, and you spend three months out of the 12 months writing a report and another three months defending it.[78]

Thus, according to this perspective, the values of business and of justice do not collide. The former should take priority over the values of transparency.

This survey of voices from the policy community around long-term nuclear fuel waste management reveals at play the sometimes competing values of business and of justice. Canada's current policy tends to be based on new public management principles, which are in line with values of business. Indeed, it seeks to establish a waste management organization that is based on principles of economy and efficiency. It thus seeks to minimize the risk of federal liabilities defaulting to the federal government, and it seeks to ensure that those with vested interests in the long-term management of high-level radioactive wastes are granted management responsibilities. To these ends, it serves in laying the institutional foundations for an entity that will operate beyond the purview of established means of public oversight. The future WMO, as per Bill C-27, will be subject to neither the Access to Information Act nor to the Report of the Auditor General. Not subject to these means of oversight, stakeholders will be less able to see directly whether or not the activities of the future WMO uphold the requirements of distributive justice.

Also in the concerns about transparency and accountability of the future WMO, we see competing conceptions of the values of justice. A set of voices understands transparency to be facilitated by direct democratic means– i.e., by means that enable the public to get involved in waste management decisions and to access all information pertaining to waste management. Another set understands transparency to be facilitated by representative democratic means– i.e., by means that enable the minister and members of cabinet to establish policy objectives and to oversee waste management activities. Similarly, the former understands accountability in terms of the relationship between the stakeholders or, in this case, the public, and the future WMO. The future WMO should act in the public interest and should be accountable to the public. Thus, the WMO should report to Parliament. The latter conceptualizes accountability in terms of the shareholders and the future management organization. The WMO should act in the interest of shareholders and should be accountable to those funding it. Thus, the shareholders should appoint the Board of Directors and the Advisory Council, both of which will be accountable to them.

[76] Ibid.
[77] Ibid.
[78] Ibid.

The argument in this paper is that where the responsibility for the delivery of a public service is delegated to a private sector organization, it should be legislatively required that the organization submit to public oversight. This is especially the case where the activities of the organization could have implications for distributive justice among contemporaries and among future generations. Although forceful are the responses to concerns about the lack of the transparency and accountability of the future WMO, they do not speak directly to the ethical imperatives associated with the responsibility of delivering a public service that bears the burdens of risk and uncertainty for both existing and future people. Where a public service with implications for the well-being of existing and future people is delivered, it should be assured that its delivery is accessible and accountable to the public. It is not contested that the future WMO will be delivering a public service. As one representative stated, it is "the view of our industry that appropriate management and disposal of Canada's nuclear waste is to the general advantage of all Canadians, just as the availability of nuclear technology is an advantage to all Canadians."[79] What is contested in this case is the relationship between the values of business and those of justice as expressed in the current Bill C-27. In Canadian nuclear waste management policy, there tends to be a priority of business values over values of justice. From an ethical perspective, this priority is difficult to defend.

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[79] Submission to NRCan on federal oversight options (31 March 1999).