



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Cameco Corporation

Subject Application to Renew its Nuclear Fuel Facility
Operating Licence for Blind River Refinery

Public Hearing
Dates November 3, 2011 and January 19, 2012

RECORD OF PROCEEDINGS

Applicant: Cameco Corporation

Address/Location: 2121-11th Street West, Saskatoon, Saskatchewan S7M 1J3

Purpose: Application to renew the Nuclear Fuel Facility Operating Licence for Blind River Refinery

Application received: April 15, 2011

Dates of public hearings: November 3, 2011 (Day 1) and January 19, 2012 (Day 2)

Location: Day 1: Canadian Nuclear Safety Commission (CNSC) Public Hearing Room, 280 Slater St., 14th. Floor, Ottawa, Ontario
Day 2: Town Park Recreation Centre, 62 McCaul Street, Port Hope, Ontario

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M. J. McDill A. Harvey
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Secretary: M.A. Leblanc
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Intervenors			
See appendix A			

Licence: Renewed

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Introduction

1. Cameco Corporation (Cameco) has applied to the Canadian Nuclear Safety Commission¹ for the renewal of the fuel facility operating licence for its uranium refinery in Blind River, Ontario. The current operating licence, FFOL-3632.2/2012, expires on February 29, 2012.
2. The Blind River facility refines various milled uranium concentrates (yellowcake) received from various sources to produce uranium trioxide powder (UO₃). The primary recipients of the product are Cameco's Port Hope Conversion Facility and Springfields Fuel Ltd. located in the United Kingdom.
3. The Blind River facility is currently licensed to produce up to 18 000 tonnes of uranium as uranium trioxide during any calendar year. Cameco has applied for the renewal of this licence for a period of 10 years and for the Commission's authorization to increase the annual production capacity from 18 000 to 24 000 tonnes of uranium as uranium trioxide.

Issue

4. In considering the application, the Commission was required to decide, pursuant to subsection 24(4) of the *Nuclear Safety and Control Act*² (NSCA):
 - a) if Cameco is qualified to carry on the activity that the licence would authorize; and
 - b) if, in carrying on that activity, Cameco would make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

Public Hearing

5. The Commission, in making its decision, considered information presented for a public hearing held on November 3, 2011 in Ottawa, Ontario and on January 19, 2012 in Port Hope, Ontario. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*³. During the public hearing, the Commission considered written submissions and heard oral presentations from CNSC staff (CMD 11-H18, CMD 11-H18.A) and Cameco (CMD 11-H18.1, CMD 11-H18.1A, CMD 11-H18.1B, CMD 11-H18.1C). The Commission also considered oral and written submissions from 38 intervenors (see Appendix A for a detailed list of interventions). Representatives from the Ontario Ministry of the Environment were also available for questions.

¹ The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

² Statutes of Canada, S.C. 1997, c. 9.

³ Statutory Orders and Regulations, S.O.R./2000-211.

Decision

6. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*, the Commission concludes that Cameco is qualified to carry on the activity that the licence will authorize. The Commission is of the opinion that Cameco, in carrying on that activity, will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, renews Cameco Corporation's Fuel Facility Operating Licence for its uranium refinery in Blind River, Ontario. The renewed licence, FFOL-3632.00/2022, is valid from March 1, 2012 to February 28, 2022.

7. The Commission accepts Cameco's application to increase the annual production capacity.
8. The Commission includes in the licence the conditions as recommended by CNSC staff and set out in the draft licence attached to CMD 11-H18, with the following modification:
 - Licence condition 4.4 is removed from the draft licence attached to CMD 11-H18.
9. The Commission delegates approval authority as described in the draft Licence Conditions Handbook that was submitted as attachment to CMD 11-H18.
10. With this decision, the Commission directs Cameco to prepare a status report on the safety performance of its facility approximately at the midpoint of the 10-year licence term. The Commission requests that CNSC staff also prepare a report on the results of compliance activities carried out during the first half of the licence term and on the licensee's performance during that period. Cameco and CNSC staff shall present their reports at a public proceeding of the Commission. In addition, the Commission directs CNSC staff to provide annual industry reports on the performance of this and other nuclear fuel facilities and to present these in public proceedings of the Commission.

Issues and Commission Findings

11. In making its licensing decision, the Commission considered a number of issues relating to Cameco's qualification to carry out the proposed activities and the adequacy of the proposed measures for protecting the environment, the health and safety of persons, national security and international obligations to which Canada has agreed.

12. CNSC staff informed the Commission that they have reviewed Cameco's licence renewal application and found that the submitted application was complete and had met the CNSC regulatory requirements.

Management

13. The Commission considered issues related to the program areas of Management System, Human Performance Management and Operating Performance in order to assess the adequacy of the programs and effectiveness of their implementation.

Management System

14. Cameco representatives informed the Commission that the Fuel Services Division had been established in 2007 as a link between Cameco Corporation and its Ontario operations to ensure better oversight and sharing of best practices amongst the facilities. The division is comprised of three CNSC licensed facilities: the Blind River Refinery, the Port Hope Conversion Facility and Cameco Fuel Manufacturing in Port Hope. It also comprises two non-licensed facilities: the Cameco Fuel Manufacturing in Cobourg and the Divisional Headquarters located in Port Hope.
15. Cameco representatives further informed the Commission about their management structure and initiatives in regulatory and government relations, environmental protection, public consultation, hydrogeology, fire protection and in other areas, to ensure the achievement of safe, clean and reliable production.
16. Cameco representatives added that they have a number of different systems in place to support their overall management system. They said that during the current licensing period, Cameco had developed a new corrective action program to improve the quality of accident and incident investigations, as well as a new electronic database to standardize the documentation of these events and subsequent corrective actions.
17. CNSC staff reported that Cameco has a management system program described in their "Operations Quality Assurance Program Manual" that provides adequate management controls to ensure all licensed activities and processes are conducted in a safe manner and in compliance with the CNSC regulatory requirements.
18. CNSC staff informed the Commission that they had conducted several desktop reviews and on-site verifications of Cameco's corrective actions stemming from a previous Type I quality assurance compliance inspection report. The reviews confirmed that Cameco had completed the proposed corrective actions to address all findings of the report.

19. CNSC staff stated that Cameco maintains its management system program in compliance with CNSC's regulatory requirements and rated this safety and control area (SCA) as satisfactory.

Conclusion on Management System

20. Based on its consideration of the presented information, the Commission concludes that Cameco has appropriate organization and management structures in place to adequately carry out the activities under the proposed licence.

Human Performance Management

21. Cameco representatives informed the Commission that Cameco has been implementing a systematic approach to training (SAT) at all of their Canadian operations. They added that the SAT process covers initial employee training and routine requalification training, as well as requalification training of employees after an extended absence from the workplace.
22. CNSC staff informed the Commission on their assessment of staffing and training at the Blind River Refinery (BRR) and rated Cameco's performance in this area as satisfactory.
23. With respect to staffing, CNSC staff reported that a summary of current staffing levels at the refinery is documented in Cameco's Facility Licensing Manual, which had been reviewed and accepted by CNSC staff.
24. CNSC staff confirmed that Cameco's BRR staff were developing and implementing the SAT, and informed the Commission that they had conducted two inspections and multiple document reviews to assess Cameco's progress in developing a SAT-based training program. They added that minor deficiencies identified during the inspections had been addressed by Cameco in a timely manner.

Conclusion on Human Performance Management

25. Based on its consideration of the presented information, the Commission concludes that Cameco has appropriate programs in place and that current efforts related to human performance management provide a positive indication of Cameco's ability to adequately carry out the activities under the proposed licence.

Operating Performance

26. CNSC staff informed the Commission that the specific areas that comprise this SCA include facility operating performance, work procedures and events reporting. CNSC staff rated this SCA as satisfactory.

Facility Operating Performance

27. CNSC staff reported that they had carried out on-site quarterly inspections and desktop reviews of the Cameco's submissions, which include the quarterly and annual compliance reports, third party review reports on modifications, reportable event reports and other reports as required by the CNSC. CNSC staff said that findings from the inspections had been adequately addressed by the licensee in accordance with its corrective action plan that was reviewed and accepted by CNSC staff.
28. The Commission inquired about the origin and concentration of the uranium refined in the facility. Cameco representatives responded that usually between 40 and 60 percent of the annual production come from Canada, while the rest of it comes from other countries. With respect to the concentration of uranium, Cameco representatives responded that it could be from 65 percent to 84 percent uranium in the feed, depending on the origin.
29. The Commission inquired about ageing management. Cameco representatives responded that Cameco has a number of programs to manage the ageing of the facility through maintenance, quality assurance, non-destructive testing and upgrading of the equipment as required.

Work Procedures

30. Cameco representatives informed the Commission that the company had developed and implemented a new corrective action program to improve the quality of internal accident and incident investigations, as well as a new Cameco Incident Reporting System (CIRS) electronic database to standardize the documentation of these events and subsequent corrective actions.
31. CNSC staff informed the Commission that Cameco had developed, enhanced and implemented several error-reduction processes that include job hazard analysis (JHA) hazards and operability (HAZOP) reviews for each production unit.
32. CNSC staff reported that they had reviewed CIRS incidents reports during on-site inspections to assure that the licensee has taken appropriate corrective actions to address the incidents, and had found it to be a good improvement. CNSC staff observed that the investigation of root causes and timely completion of corrective action plans need strengthening, and noted that they would continue monitoring the licensee's progress in these areas during the future compliance inspections.

Event Reporting

33. CNSC staff reported that during the review period, there were no reportable events under the CNSC regulatory requirements; however, some events reportable to other regulatory bodies had also been reported to the CNSC. CNSC staff added that Cameco had investigated these events to determine their causes and implemented corrective actions to prevent their re-occurrence, and noted that they were satisfied with Cameco's incident detection, reporting, investigation and corrective actions.
34. The Commission sought more information and comments from Cameco and CNSC staff on a three-fold increase in number of reported events from 2007 to 2010. Cameco representatives responded that these reported events are a communications tool and a demonstration of the attitude of the employees who are encouraged to report events, no matter how minor they might be. CNSC staff noted that, although called "events", they are not events in terms of spills or accidents, and added that the number of reported events is usually an indicator of safety culture and of a company's approach to low level events.

Request to Increase Production

35. CNSC staff informed the Commission that they have reviewed Cameco's request to increase its production by 33 percent and found that the requested production increase is safe and acceptable since it does not involve new processes, chemicals or hazards, and it would not increase risks to persons or the environment. CNSC staff noted the environmental assessment completed and approved by the Commission in 2008 regarding such an increase, which concluded that there would be no significant adverse environmental effects and that the safety related systems and mitigation measures in place provide satisfactory defence in depth for the continued safe operations of the facility.
36. The Commission asked CNSC staff whether the requested increased production rate of 24 000 tons per year has been clearly defined as the maximum production of uranium allowed by the proposed licence, since this number does not appear explicitly among the proposed licence conditions. CNSC staff responded that it is considered to be part of the licensing basis because the environmental assessment had been performed accounting for this maximum annual production. They stated that this number is included in the Licence Condition Handbook, and a further increase of this limit would require a licence amendment, since the licensing basis contemplates production only to this amount.
37. The Commission inquired about short-term and long-term planning and whether the request for production increase stems from a long-term projection of the demand for uranium. Cameco representatives responded that their three-year plans serve for strategic planning for the immediate future, while the 10-year plans have been created

for developmental purposes. Cameco representatives added that the company had not specified details related to the production increase, or determined when the project would begin. They stated that the request reflects Cameco's intention to position itself for a potential increase in demand for uranium, which is expected in the future.

38. The International Institute of Concern for Public Health (IICPH) and Northwatch, in their interventions, did not support the requested production increase and expressed their concerns respecting a number of related issues, including environmental impact of an extended operation of the incinerator, regulatory limits for uranium air emissions and liquid effluent releases. The IICPH representative also questioned the analysis of cost and benefits of transporting contaminated and spent material to facilities in Key Lake, Saskatchewan, and in Utah for uranium recovery. In response, Cameco representatives noted, and CNSC staff confirmed, that the current levels of contaminants were only a fraction of any regulatory limit and that these levels would continue to be a fraction of the regulatory limits after the production increase.
39. The representative of the Ontario Ministry of Environment (MOE) added that the operation of the incinerator is approved by the MOE, and that Cameco's monitoring of emission samples is subject to field oversight by MOE officials.

Conclusion on Operating Performance

40. Based on its consideration of the presented information, the Commission is satisfied that the operating performance at the facility provides a positive indication of Cameco's ability to adequately carry out the activities under the proposed licence, and to provide adequate protection to the health and safety of persons and the environment.
41. The Commission also approves Cameco's application for the production increase at the Blind River Refinery.

Facility and Equipment

42. The Commission examined issues related to the program areas of Safety Analysis, Physical Design and Fitness for Service in order to assess the adequacy of the safety margins provided by the design of the facility.

Safety Analysis

43. Cameco reported that the safety report for the Blind River Refinery summarized the systematic review of the site operations to identify and assess hazards and potential risks to the public and the environment from refinery operations. Cameco uses a hazards and operability approach to assess new processes or equipment.

44. Cameco noted that a site-specific Spill Prevention and Contingency Plan was created during the current licence period, in accordance with a new requirement by the MOE. The plan's primary objective is to help prevent or reduce the risk of spills of hazardous chemicals, pollutants or dangerous goods to the environment and to prevent, eliminate or improve any adverse effects that may result from such spills.
45. CNSC staff informed the Commission that they had reviewed and accepted Cameco's revised safety report that reflects the proposed increased production and improvements made to date in several safety systems including environmental protection, radiation protection, fire protection, chemical safety and security at the facility. CNSC staff added that, during the review period, quarterly compliance inspections were conducted as planned to verify that the licensee had been adequately maintaining the safety barriers and protective systems as specified in the BRR facility's safety analysis report.

Conclusion on Safety Analysis

46. On the basis of the information presented, the Commission concludes that the systematic evaluation of the potential hazards and the preparedness for reducing the effects of such hazards is adequate for the operation of the facility and the activities under the proposed licence.

Physical Design

47. Cameco representatives informed the Commission that the design, construction and operation of the refinery was intended to eliminate or minimize the potential of radiological, chemical or other physical hazards to facility personnel, local residents or the surrounding community.
48. Cameco representatives noted that the improvements of the physical design of the refinery consisted of the installation of the drum cutting and decontamination circuit, which went through significant design control and included a third party safety analysis of the operation, fire hazard analysis, job hazard analysis, as well as detailed training and operating instructions. Cameco representatives added that they had enhanced the fire protection system and paved the drum storage yard areas.
49. CNSC staff reported that they had conducted quarterly compliance inspections as planned and that the compliance issues identified related to this SCA had been satisfactorily addressed by Cameco in accordance with its corrective action plan reviewed and accepted by CNSC staff.
50. CNSC staff further informed the Commission on modifications and upgrades that Cameco had made, related to its existing safety structures, systems and components (SSCs), as well as those related to the requested production increase. Based on their assessment, CNSC staff recommended that the Commission approve Cameco's proposed modifications to install additional equipment at its existing BRR facility.

51. The Commission inquired on necessary changes in plant design in order to accommodate the proposed production increase of 33 percent. Cameco representatives responded that the existing redundancy in the plant design allows for the increased daily production rates. They explained that two major upgrades include the installation of two additional strip columns required to remove the uranium from the solvent through the solvent extraction process, and an addition of three new denitration pots for drying uranyl nitrate hexahydrate to a dry powder, uranium trioxide.

Conclusion on Physical Design

52. On the basis of the information presented, the Commission concludes that the ability of systems, components and structures to maintain their design basis is adequate for the operation period included in the proposed licence.

Fitness for Service

53. CNSC staff informed the Commission that their evaluation of Cameco's performance in this SCA had included preventative maintenance programs and in-service inspection and testing programs. CNSC staff reported that they had conducted quarterly compliance inspections and found that Cameco continues to maintain the BRR as a safe facility by ensuring that the safety-related systems, structures and components remain functional as designed over their lifetime. CNSC staff had rated Cameco's performance in this SCA as satisfactory.

Conclusion on Fitness for Service

54. The Commission is satisfied with Cameco's programs for the inspection and life-cycle management of key safety systems. Based on the above information, the Commission concludes that the equipment as installed and maintained at the Blind River Refinery is fit for service.

Core Control Process

55. The Commission assessed the adequacy of the programs and effectiveness of their implementation and examined issues related to the following program areas:
- Radiation Protection;
 - Conventional Health and Safety;
 - Environmental Protection;
 - Emergency Management and Response, and Fire Protection;
 - Waste Management;
 - Security;
 - Safeguards and Non-Proliferation; and
 - Packaging and Transport.

Radiation Protection

56. Cameco representatives informed the Commission about the company's comprehensive radiation protection program that includes external and internal dosimetry program, an extensive in-plant sampling program, a respiratory protection program that meets the requirements of CSA standards, and an extensive radiation surveying and contamination monitoring program. They reported that there were no exceedences of CNSC limits during the current licensing period.
57. Cameco representatives further informed the Commission that all aspects of the program are audited on a routine basis as part of the internal audit program, and said that the program is also audited by independent, qualified third parties to verify compliance against applicable regulatory and licence requirements. Cameco representatives added that the process modifications and applied technology improvements had contributed to reduced exposure of the employees to radiation.
58. CNSC staff reported that Cameco continues to maintain an effective radiation protection program to keep doses to workers and the public as low as reasonably achievable. CNSC staff added that, as required, Cameco had established monthly and quarterly action levels for radiation doses to workers, which had been set well below the regulatory limit and had not been exceeded during the review period. The measurements have shown that radiation doses to workers, as well as the maximum effective dose calculated to a hypothetical member of the public, were well below the annual regulatory limits, and amounted to only 3.6 percent of the public dose limit of 1 mSv/y (milliSieverts per year) for the public and 0.072 percent for Nuclear Energy Workers (where the limit is 50 mSv/y).
59. CNSC staff explained that Cameco uses a CNSC-licensed external dosimetry service provider to monitor, assess, record and report doses of ionizing radiation received by all nuclear energy workers and contractors. The internal dosimetry program is comprised of lung counting and urine sampling.
60. With respect to contamination control, CNSC staff said that methods of contamination control include the use of a zone control program and radiological monitoring programs to assess the effectiveness of the zone control program. CNSC staff added that surface contamination monitoring is conducted throughout the facility to check for a potential build-up of radioactive material. The effectiveness of the facility zone control program is assessed through a combination of floor contamination surveys, swipe sampling and monitoring of employee hands, footwear and clothing, with daily checks of alpha radiation levels and monthly checks for beta and gamma contamination.

61. CNSC staff rated this SCA as satisfactory.

Conclusion on Radiation Protection

62. The Commission is of the opinion that, given the mitigation measures and radiation protection programs that are in place or will be in place to control hazards, Cameco will provide adequate radiation protection to the health and safety of persons and the environment.

Conventional Health and Safety

63. Cameco representatives informed the Commission that the Blind River Refinery had achieved five years without a lost time injury in June of 2011 and noted that, previously, the refinery had achieved over 11 years without incurring a lost time injury, which remains a record for Cameco's Canadian operations.
64. CNSC staff reported that Cameco has an effective health and safety program in place to protect workers from industrial hazards at the facility and added that a health and safety committee conducts monthly safety inspections, reviews incidents for causes and corrective actions, and recommends health and safety improvements.
65. The Commission commended Cameco for their achievement regarding lost time injuries and sought more information on the volume of other injuries. Cameco representatives responded that they have a system for tracking injuries, which is used to analyse trends and to identify areas of concern, and added that the number of first aid and medical aid injuries for this site remains low.
66. Based on the information provided, the Commission is of the opinion that Cameco will provide adequate protection for the health and safety of persons.

Environmental Protection

67. Cameco representatives informed the Commission that the refinery did not have exceedences of CNSC regulatory limits or action levels during the current licensing period, and presented their actions and improvements related to minimizing the impact of the facility's operation to the environment. They noted that the company had eliminated the bulk storage of sulphuric acid and modified the refining process to eliminate the use of ammonia at the site. In addition, the company had designed and installed a drum decontamination circuit, allowing for the disposal of over 100 000 drums.

68. Cameco representatives informed the Commission that the company had installed in 2007 and commissioned in 2009 a new pollution control circuit for their incinerator to meet new Canada-wide emissions standards. They added that the company had purchased new laboratory instrumentation for environmental sampling analysis to increase the reliability and accuracy of measurements.
69. With respect to provincial regulations, Cameco representatives said that, during the current licence term, the provincial Ministry of Environment (MOE) had introduced a new environmental regulation requiring the refinery to develop a documented spill prevention and contingency plan.
70. Cameco representatives also informed the Commission that the company has been registered to the ISO standards since 2002 and that the refinery had been registered to the ISO 14001 environmental management system in 2011.
71. CNSC staff informed the Commission that they had proposed a new licence limit for airborne uranium emissions, which is 20 times lower than the current one and is based on the public dose limit of 0.05 mSv/y (milliSieverts per year). CNSC staff noted that the current total uranium emission rates are well below the proposed, lower licence limits.
72. One intervenor complained about the procedure followed by MOE regarding establishing standards for uranium in air. The Commission sought more information on public consultation during the development of the standard. CNSC staff responded that there had been a public consultation process on the proposed uranium in air standard, which had included at least two public information sessions where members of the public could ask questions and provide their comments, and a formal comment period so that MOE could finalize the standard.
73. With respect to regulatory limits for environmental releases, CNSC staff noted that they were finalizing a discussion paper that will be put on the CNSC website for stakeholder comments, and suggested that the intervenors provide feedback to the CNSC. The feedback would then be used by CNSC staff to finalize their approach to establishing regulatory limits for the environmental releases.
74. The Commission asked about the expected impact of the increase of production on emissions, amount of by-products and tailings. Cameco representatives responded that no significant increase to any of the emissions is expected for this refinery after the production increase. They added that the refinery has a nitric acid recovery circuit and that the other bi-products or recycled products are currently being processed by a company in the USA, with future processing planned to be done at Cameco's Key Lake facility in northern Saskatchewan.

75. Asked by the Commission to comment, CNSC staff noted that they were aware of the increase in by-products of about 30 percent, and that they had reviewed and accepted the plan proposed by Cameco to handle this matter. CNSC staff added that most of the by-products would be recycled back into the uranium cycle, so that the increase associated with the production changes would be small. CNSC staff stated that the production of 24 000 tonnes per year was specifically mentioned in the environmental assessment as a limit, and that the licence will not authorize any exceedence of this limit.

Air and Liquid Releases

76. CNSC staff reported that Cameco monitors daily three stacks for airborne uranium releases to the environment from the refinery, and controls three sources of liquid effluents. These effluents are collected in lagoons and treated as required prior to discharge to Lake Huron through a diffuser. CNSC staff confirmed that, since 2007, all environmental releases from the facility have been well below the licence limits.
77. Cameco representatives informed the Commission that they had significantly reduced air emissions by installing the incinerator air pollution control circuit, the nitric oxide (NO_x) analyzer and a refrigeration circuit to improve the absorber NO_x abatement process.
78. The Commission asked about the uranium isotopic ratio in the effluents from the refinery. CNSC staff responded that the isotope composition of natural uranium is not changed during the processing, so that effluent composition remains the same as in the starting material. Cameco representatives confirmed that the refinery receives only natural uranium.
79. The Commission sought more information regarding two soil monitoring stations, mentioned in the Northwatch submission, which have shown some accumulation of uranium. CNSC staff reported that these two stations, located outside the boundary of the facility but near the fence line, have been monitored by Cameco and observed by the MOE and by the CNSC for some time. The MOE representative said that MOE intends to organize re-sampling during 2012, which would be consistent with their five-year inspection cycle.
80. In their intervention, Serpent River First Nation presented a review prepared by Hutchinson Environmental Sciences Ltd. (HESL) and expressed concerns regarding operations of the incinerator, monitoring of and reporting on discharges to the environment and waste management. They also recommended that the regulatory review between the provincial MOE and CNSC be harmonized and recommended inter-agency review and communication.

81. The Commission asked Cameco and CNSC to comment on the concerns expressed in the Serpent River First Nation's submission. Cameco representatives responded that the incinerator was not used to burn contaminated oil, as indicated in the intervention, and stated that monitoring and reports submitted to CNSC were based on the criteria recommended in the intervention. With respect to potential increase in discharges due to the requested production increase, Cameco representatives noted that, according to the Environmental Assessment Screening Report (EASR) submitted to the CNSC earlier during the current licence period, it had been estimated that the air emissions would increase marginally but still stay extremely low.
82. CNSC staff confirmed that the EASR approved by the Commission had indicated slight increases in emissions for the monitored parameters. However, it had been concluded that this would not result in any significant adverse environmental effect. CNSC staff reiterated that the proposed licence includes regular annual reporting on the results of monitored parameters.
83. Serpent River First Nation also made recommendations to make the monitoring reports more understandable for the general public. The Commission considers these recommendations valuable and instructs CNSC staff to duly consider the suggestions listed in the Serpent River First Nation's intervention regarding the reporting of environmental monitoring data.
84. With respect to coordination between CNSC and the provincial MOE, CNSC staff confirmed that the refinery requires a certificate of approval from provincial authorities before it increases its production capacity and noted that CNSC cooperate closely with MOE on this issue. The MOE representative confirmed that their Approval Branch had received Cameco's request to amend the production capacity of the refinery, and added that MOE will synchronize their approval with the CNSC's decision.

Groundwater Monitoring

85. Cameco representatives informed the Commission that it had reviewed and improved the inspection program for the subsurface systems at the Blind River facility based on the lessons learned from the Port Hope Conversion Facility subsurface contamination event. A qualified third party expert was hired to review the entire groundwater monitoring program. This review resulted in a number of recommendations, including the drilling of additional monitoring wells around the site, which have been included into the current site groundwater monitoring program. The new wells were drilled in 2008.
86. The Commission sought more information on distribution of monitoring wells across the area of the facility. Cameco representatives explained that monitoring wells of different depths are positioned both upstream and, most of them, downstream, inside and outside of the facility. They reiterated that, after the review of their program and the location of wells done by a third party, 14 new wells have been added before this licence renewal hearing, and six new wells were drilled between the Day One and Day Two of the hearing.

87. Asked by the Commission to comment, CNSC staff reported that they had reviewed the environmental monitoring program and were satisfied with improvements made to the groundwater monitoring system. They added that the groundwater concentrations were very low and that there had been no evidence of subsurface contamination on the property.
88. Northwatch, in its intervention, expressed concerns regarding environmental performance at the Blind River Refinery, and submitted expert reports prepared by the following organisations:
- Southwest Research Information Centre on evaluation of the environmental performance;
 - Iler Campbell, providing a jurisdictional review and comparison of the basis for determination of release limits in Canada and in the USA; and
 - Elliot Lake field station, now operating out of Laurentian University, with results of a small soil sampling program in the vicinity of the Blind River refinery.
89. Northwatch representatives stated that Cameco does not disclose detailed monitoring data to determine scope and impact of the refinery operation and fails to provide a full list of chemicals and uranium isotopes released in the environment.
90. The Commission sought more information on sampling for the groundwater monitoring, and averaging of results, as noted in the Northwatch submission. Cameco representatives explained that they use a continuous composite sampler for the water being discharged to the lake and that the obtained results are composite values for a period of 24 hours. The Commission asked if it was possible to present raw data to the public. Cameco representatives responded that their monitoring measurements produce a large quantity of data that need to be presented to the public in an easy-to-understand way, and that they would look into the possibility of disseminating this kind of data. CNSC staff added that this kind of data should be reported in Cameco's annual compliance report, which is posted on the website and is available to the public. The Commission encouraged sharing of raw data with interested parties whenever it is possible.

Flooding

91. The Commission inquired on flood modelling, topography of the site and potential for flooding of the waste management area. Cameco representatives responded that the facility does not have a designated area considered to be waste management, and the drums of shredded material are stored within the fence line. They noted that the area has not been flooded according to the existing records, including the knowledge of the Mississagi First Nation, and informed the Commission that Cameco had hired a consultant to do a flood analysis for the potential of high winds, wave action and the possibility of dam failure further upstream. Cameco representatives further noted that the emergency response plans of the owners of the dams up the Mississauga River indicate that there is a potential for flooding on the property, which differs from

Cameco's results of the 100-year flooding models and estimation for a probable maximum flood. Cameco representatives added that they were trying to resolve this difference by analyzing the method of calculation used by the dams' owners.

92. CNSC staff noted that the consultant for Blind River has recommended using the updated information to update their flood risk assessment. They added that they had reviewed and approved Cameco's action plan.
93. The Commission expressed its expectation for Cameco to submit a report on the worst case scenario with environmental impact actions prepared for a major dam failure. Cameco representatives noted that this event is a beyond design basis scenario and requires some additional reviewing. They added that they had submitted the initial report to the CNSC, and were committed to continue this work into next year and provide updates on a quarterly basis.

Conclusion on Environmental Protection

94. The Commission is of the opinion that, given the mitigation measures and safety programs that are in place or will be in place to control hazards, Cameco will provide adequate protection to the environment.
95. The Commission accepts the new, lower licence limits for airborne uranium emissions. The Commission requests CNSC staff to verify the feasibility of further lowering the action levels that would come from these new licence limits.
96. The Commission instructs CNSC staff to duly consider the suggestions listed in the Serpent River First Nation's intervention regarding the reporting of environmental monitoring data.

Emergency Management and Response, and Fire Protection

97. Cameco representatives informed the Commission about their emergency management and fire protection programs and noted that a sizeable portion of the training done at the refinery each year is spent on emergency response-related training activities. Cameco representatives added that they had signed a mutual aid agreement with the Blind River Fire Department, which provides an additional layer of support to the refinery's emergency response capability.
98. CNSC staff rated this SCA as satisfactory.

Emergency Management and Response

99. Cameco representatives noted that their emergency response is a key component to the site fire protection program, and that a defence in-depth approach has been used to ensure that the fire protection measures are adequate.

100. CNSC staff reported that, during the current licence period, they had reviewed and accepted Cameco's updated emergency response plan revision 7. CNSC staff also reported that they had reviewed Cameco's quarterly and annual compliance reports showing that Cameco had completed emergency response drills as required by its emergency response plan. They added that they had conducted a Type II compliance inspection of the BRR facility and found that Cameco was implementing its emergency response plan satisfactorily and in compliance with the CNSC regulatory requirements.

Fire Protection

101. Cameco representatives reported that the facility is compliant with the NFPA 801 standard for fire protection and has conducted a fire hazard analysis (FHA) for the refinery that meets the requirements of this standard. The FHA had been reviewed and accepted by CNSC staff.
102. With respect to the Fire Protection Program, CNSC staff stated that Cameco has a comprehensive fire protection program in place to minimize both the probability of occurrence and the consequences of fire at the facility. CNSC staff added that they had reviewed and accepted annual third party review reports submitted by Cameco, and conducted a Type II fire protection inspection at the BRR facility and found that the licensee was in compliance with the CNSC's requirements. Minor deficiencies in storing combustible materials, incorrect installation of fire extinguishers and fire emergency response documentation had been addressed by Cameco to the satisfaction of CNSC staff.

Conclusion on Emergency Management and Response and Fire Protection

103. The Commission is of the opinion that Cameco will provide adequate protection to the health and safety of persons, the environment and national security in cases of emergency and unplanned events.

Waste Management and Decommissioning

Waste Management

104. Cameco representatives presented results of their efforts to reduce the inventory of waste materials after improvements introduced during the current licence period. They explained that contaminated combustible wastes generated on-site and received from Cameco's Port Hope Conversion facility were burned in a hazardous waste incinerator, which is equipped and operated with multiple emission control systems to comply with the CNSC's and the Ontario MOE's requirements.

105. Cameco representatives informed the Commission that the refinery generates two uranium bearing by-products, which are packed in drums and sent for recovery of residual uranium content at either a uranium mill in the State of Utah, USA, or a CNSC licensed uranium mill at Key Lake, Saskatchewan. Radioactively contaminated materials soluble in nitric acid are dissolved in one of the two scrap digesters and recycled into the BRR production circuit. Contaminated non-combustible wastes are currently being stored in drums on-site until a proper disposal method is developed.
106. CNSC staff reported to the Commission that Cameco has a waste management program in place at the BRR facility, which had been updated as required in January 2011. The implemented program involves minimizing, segregating, characterizing, recycling, transporting, storing and disposing of wastes in compliance with applicable regulatory and licence requirements.
107. CNSC staff further reported that during the current licence period Cameco's performance in this SCA was rated below expectations in 2010, due to deficiencies in waste management practices. As required by CNSC staff, Cameco had submitted its proposed corrective actions, which had been reviewed and accepted by CNSC staff. CNSC staff added that, since Cameco had implemented the required improvements in its waste management program, they had rated Cameco's current performance in this area as satisfactory.
108. The Commission sought more information on Cameco's continuous efforts to improve its waste management program. Cameco representatives informed the Commission that they have made significant progress in removing slightly contaminated materials, and that the construction and installation of a drum cleaning and grit blast circuit had allowed them to dispose of these cleaned used drums to a scrap dealer for recycling.
109. Northwatch, in its intervention, noted that Cameco and CNSC documents presented to the public were over-generalized and do not provide adequate information about the waste management approach, its programs and its outcomes. Northwatch representatives also expressed their concerns about bringing stockpiled combustible waste from Port Hope to Blind River for incineration, burning used oils in the incinerator, and about efficiency of recycling contaminated materials for their reuse.
110. The International Institute of Concern for Public Health (IICPH), in its intervention, stated that incineration of the waste does not contribute effectively to the waste reduction, and does not prevent air contamination. The Commission sought more information on the incineration process and inquired on materials that have been incinerated. Cameco representatives responded that the incinerator was used to process the contaminated combustibles from both the Blind River Refinery and the conversion facility in Port Hope. They added that incineration was keeping up with the current operation, so that the waste is incinerated as it is generated. Cameco representatives stated that contaminated oil was not burned in the incinerator and had been excluded from the list submitted to MOE with their application for the certificate of approval.

111. The Commission further inquired about emission controls installed on this incinerator. Cameco representatives responded that the incinerator has a system that includes scrubber columns, baghouse for filtration of the particulate and dust, and activated carbon beds for removal of dioxins and furans.
112. Following the concern expressed by an intervenor regarding the condition of drums containing radioactive waste, the Commission asked about frequency of inspection of those drums. CNSC staff responded that they inspect the refinery on a quarterly basis, and that the last inspection that had included inspection of drums had been conducted in November 2011.

Decommissioning

113. The Commission requires that the licensee has operational plans for decommissioning and long-term management of waste produced during the life-span of the facility.
114. Cameco representatives informed the Commission that the site has a preliminary decommissioning plan, which had been updated during the current licensing period, and had been reviewed and accepted by CNSC staff. According to the last update, from March 2011, the decommissioning cost estimate has increased from \$36 million to \$38.6 million.
115. CNSC staff informed the Commission that they have reviewed and assessed Cameco's revised preliminary decommissioning plan (PDP), entitled "Blind River Refinery Preliminary Decommissioning Plan 2011", and found that, during the current licence period, Cameco's performance to maintain an acceptable PDP for the facility had been satisfactory.

Conclusion on Waste Management and Decommissioning

116. Based on this information, the Commission considers that the preliminary decommissioning plan is acceptable for the purpose of the current application for licence renewal.

Security

117. With respect to site security issues, the Commission was provided with a separate, protected CMD.
118. The Commission concludes that Cameco has made adequate provision for ensuring the physical security of the facility, and is of the opinion that Cameco will continue to make adequate provision for the protection of national security during the proposed licence period.

Safeguards and Non-Proliferation

119. The CNSC's regulatory mandate includes ensuring conformity with measures required to implement Canada's international obligations under the Treaty on the Non-Proliferation of Nuclear Weapons. Pursuant to the Treaty, Canada has entered into safeguards agreements with the International Atomic Energy Agency (IAEA). The objective of these agreements is for the IAEA to provide credible assurance on an annual basis to Canada and to the international community that all declared nuclear material is in peaceful, non-explosive uses and that there is no undeclared nuclear material or activities in this country.
120. Cameco representatives informed the Commission that, during the current licence period, CNSC security specialists had conduct routine inspections at the site, and that the IAEA had conducted numerous scheduled audits as well as random, short-notice inspections.
121. Responding to the Commission's question, CNSC staff said that it is satisfied that Blind River is meeting its requirements in terms of safeguards. CNSC staff noted that they had issued a new regulatory document RD-336, *Accounting and Reporting of Nuclear Material*, which came into effect on 01 January 2011. The document sets out the requirements for accurate and standardized accountancy of nuclear material inventories and describes the reporting requirements of nuclear material. CNSC staff added that the reporting requirements in a new licence will be those stipulated in RD-336.
122. Based on the above information, the Commission is satisfied that Cameco has made and will continue to make adequate provisions in the areas of safeguards and non-proliferation at the Blind River Refinery that are necessary for maintaining national security and measures necessary for implementing international agreements to which Canada has agreed.

Packaging and Transport

123. Cameco representatives said that Cameco complies with all regulatory requirements with respect to transport regulations including training requirements, and has an approved emergency response assistance plan on file with Transport Canada. Cameco representatives added that, during the current licence period, there had been two transportation events with no radiological consequences. Reports on both events were sent to the CNSC.

124. CNSC staff informed the Commission that Cameco complies with the *Packaging and Transport of Nuclear Substances Regulations*⁴ and Transport Canada's *Transportation of Dangerous Goods Regulations*⁵ for all shipments leaving the site. CNSC staff added that they had conducted a compliance inspection of Cameco's program in March 2009, and concluded that it met the regulatory requirements and the requirements of the licence.
125. The Commission asked about inspection of the totes used for transportation. Cameco representatives explained that the totes were tested annually, through their preventative maintenance program, as well as visually inspected by the employees after packaging during preparation for transportation.

Other Information

Application of the *Canadian Environmental Assessment Act*

126. Before making a licensing decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*⁶ (CEAA) have been fulfilled.
127. CNSC staff indicated that the application to renew the licence for the facility under subsection 24(2) of the NSCA is not prescribed for the purposes of paragraph 5(1)(d) of the CEAA in the *Law List Regulations*⁷. Since there are no other CEAA triggers for this project that involve the CNSC, CNSC staff stated that an environmental assessment under CEAA is not required.
128. CNSC staff reminded the Commission that the proposed production increase had been previously assessed under the *Canadian Environmental Assessment Act* in August 2008. CNSC staff noted that the Commission, in its Record of Proceedings, including Reasons for Decision dated October 14, 2008⁸, decided that the project, taking into account identified mitigation measures, is not likely to cause significant adverse environment effects. Hence, there is no requirement for any new federal environmental assessment for the requested production increase.

⁴ S.O.R./2000-208

⁵ S.O.R./2001-286

⁶ Statutes of Canada, S.C. 1992, c. 37

⁷ Statutory Orders and Regulations, S.O.R./94-636.

⁸ Record of Proceedings, including Reasons for Decision, *Environmental Assessment Screening Report for Increasing the Annual Production Capacity of Uranium as Uranium Trioxide at the Blind River Refinery*, Hearing date October 14, 2008.

129. Based upon the above assessment, the Commission is satisfied that an environmental assessment under the CEAA is not required for this application.

Cost Recovery

130. CNSC staff informed the Commission that Cameco's Blind River facility is in full compliance with the CNSC Cost Recovery Fees Regulations respecting the BRR.

Financial Guarantee

131. In order to ensure that adequate resources are available for a safe and secure future decommissioning of the Blind River Refinery site, the Commission requires that an adequate financial guarantee for realization of the planned decommissioning activities is put in place and maintained in a form acceptable to the Commission throughout the licence period.
132. CNSC staff informed the Commission that Cameco currently maintains the required financial guarantee in the form of an irrevocable letter of credit for the value of \$36 million CAD. The updated preliminary decommissioning plan includes the decommissioning cost estimate of \$38.3 million; however, based on CNSC staff's comment, Cameco revised its cost estimate to \$38.6 million in September 2011.
133. The Commission sought more information on potential influence of the proposed production increase on decommissioning cost and financial guarantees. CNSC staff responded that the increased cost estimate reflects the changes associated with the proposed production increase. CNSC staff recommended to the Commission to accept Cameco's revised estimated decommissioning cost of \$38.6 million and proposed financial guarantee amount in the form of an irrevocable letter of credit from a Canadian bank for the same amount.
134. Based on this information, the Commission considers that the preliminary decommissioning plans and related updated financial guarantee are acceptable for the purpose of the current application for licence renewal.

Public Information Program and Aboriginal Consultation

135. Cameco representatives informed the Commission that Cameco maintains constant communications with the Mississauga First Nation and that a Memorandum of Understanding was signed between the Chief of Mississauga First Nation and the general manager of the site.

136. Cameco representatives added that, according to a recent survey conducted by a third party, Cameco has 94 percent of the community supporting the continued operation of the refinery. They noted that Cameco holds annual information meetings with the Town Council and the Mississaugi First Nation Band Council, conducts numerous tours at the refinery and provides many presentations for local interest groups. Cameco also organises meetings with the Blind River Area Environmental Monitoring Committee, which is a committee of the Town with representatives from local communities.
137. Cameco representatives further informed the Commission that information on the Blind River operation could be found on the Cameco website, which also provides a link to the new community website. They said that quarterly and annual compliance reports provided to the Town and Mississaugi First Nation could be also found on the website.
138. CNSC staff reported that Cameco has an acceptable public information program in place for its Blind River facility. Under this program, Cameco had established a dedicated website, public communication plan for emergencies, and periodic reporting of its facility's performance to the Town of Blind River.
139. The Commission asked about the number of employees recruited from the First Nations communities. Cameco representatives responded that about 17 percent of their staff would be of First Nation origin.
140. The Commission asked if Cameco intends to update their survey on public support now, after the Fukushima event. Cameco representatives responded that the company had already updated their surveys at some of their facilities, and plans to do an update for the Blind River site.
141. Northwatch, in its intervention, noted that Cameco did not have contact with all neighbouring aboriginal communities, including the First Nations residing on Manitoulin Island. Cameco representatives responded that they have focussed on the local communities that have expressed their interest in the operations of the refinery, and said that they did not approach two more distant communities located across Lake Huron. CNSC staff responded that, beyond the North Shore Tribal Council and all its Band Members from surrounding the Blind River area, they had contacted the Métis Nation of Ontario and the regional councils around Blind River, as well as the Union of Ontario Indians, which is a representative organizational group that the Band Members on Manitoulin Island are a part of.
142. The Commission wishes to recognize the contributions of the two intervenors who received funding from the CNSC's Participant Funding Program (the Serpent River First Nation and Northwatch), as these interventions provided meaningful and value adding information as per the purpose of the Program.

143. Based on the information provided, the Commission is satisfied that Cameco's public information program meets regulatory requirements and is effective in keeping the public informed on the facility operations. The Commission is also satisfied that sufficient notice was provided to Aboriginal groups regarding this licence renewal. The Commission's hearing process and participant funding program provided an opportunity to the Aboriginal People and the public to make submissions and to participate in the regulatory process. The Commission has considered all of the submissions in making its decision and is satisfied that, in this particular instance, no further measures would be required for the Commission to uphold the honour of the Crown in making this licensing decision.

Licence Length and Conditions

144. Cameco has applied, and CNSC staff recommended to the Commission, to renew this operating licence for a period of 10 years.
145. The Commission inquired as to the reasons for the request for a ten-year licence term, and asked what regulatory requirements would be included in the licence. Cameco representatives responded that they requested a ten-year licence based on their good record of safe operation and demonstrated commitment to continuous improvements. CNSC staff stated that they plan to group all facilities involved in fuel fabrication into an annual industry compliance report, and added that CNSC activities related to compliance verification along with the licence condition handbook flexibility would be sufficient to effectively manage the compliance verification over a 10-year period.
146. With respect to Cameco's request for a ten-year licence term, CNSC staff informed the Commission that they had found it acceptable. CNSC staff added that the hazards associated with licensed activities were well-characterized and controlled, that Cameco has consistently met the CNSC's regulatory requirements, and that the refinery has well-established processes.
147. A majority of the intervenors supported Cameco's request for a ten-year licence renewal and emphasized the company's safety culture, safe working environment, efforts to protect the environment and general positive influence on the neighbouring communities and their development.
148. The International Institute of Concern for Public Health (IICPH) and Northwatch, in their interventions, objected to licensing the facility for the period of ten years, and asked for a shorter licence term and more frequent compliance inspections. CNSC staff noted that they had conducted 27 inspections over the last licence period, and reiterated that the licensee would have to submit annual compliance reports and that it would be subjected to inspections and, if needed, other actions that the CNSC might deem necessary. CNSC staff also noted that a number of licensees of similar profiles had been issued ten-year licences.

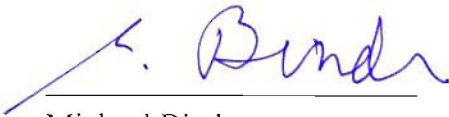
149. CNSC staff informed the Commission that they will continue with regulatory oversight of the licensee's compliance based on the compliance verification criteria specified in the Licence Conditions' Handbook, and that they have established a compliance verification activity plan for the facility, which is based on the relative risks of all nuclear facilities and is consistent with CNSC's risk-informed regulatory approach. The compliance verification activities include the following:
- quarterly inspection of Cameco's safety related systems and programs;
 - desktop reviews of Cameco's submissions including quarterly and annual compliance reports, third-party review reports on modifications, event reports and updated safety program documents;
 - assessments of Cameco's proposed corrective actions to address deficiencies found during the compliance inspections; and
 - verification of Cameco's effective and timely completion of corrective actions.
150. Based on the information provided, the Commission concludes that a ten-year licence is appropriate. The Commission directs Cameco to prepare a status report on the safety performance of its facility approximately at midpoint of the 10-year licence term. The Commission requests that CNSC staff also prepare a report on the results of compliance activities carried out during the first half of the licence term and on the licensee's performance during that period. Cameco and CNSC staff shall present their reports at a public proceeding of the Commission. In addition, the Commission directs CNSC staff to provide annual industry reports including the performance of the facility, and that these be also presented at public proceedings of the Commission.

Conclusion

151. The Commission has considered the information and submissions of CNSC staff, Cameco and all participants as set out in the material available for reference on the record, as well as the oral and written submissions provided or made by the participants at the hearing.
152. The Commission concludes that an environmental assessment of the proposed continued operation of the facility, pursuant to the *Canadian Environmental Assessment Act*, is not required. It relies on the environmental assessment completed in 2008 respecting the production increase.
153. The Commission is satisfied that Cameco meets the requirements of subsection 24(4) of the *Nuclear Safety and Control Act*. That is, the Commission is of the opinion that Cameco is qualified to carry on the activity that the proposed licence will authorize and that Cameco, in carrying on that activity, will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

154. The Commission includes in the licence the conditions as recommended by CNSC staff and set out in the draft licence attached to CMD 11-H18, with the modifications stated earlier in this Record of Proceedings. The Commission also delegates approval authority under the licence as outlined in the LCH.

155. The Commission directs Cameco to prepare a status report on the safety performance of its facility approximately at the midpoint of the 10-year licence term. The Commission requests that CNSC staff also prepare a report on the results of compliance activities carried out during the first half of the licence term and on the licensee's performance during that period. Cameco and CNSC staff shall present their reports at a public proceeding of the Commission. In addition, the Commission directs CNSC staff to provide annual industry reports on the performance of this and other nuclear fuel facilities and to present these in public proceedings of the Commission.



Michael Binder
President,
Canadian Nuclear Safety Commission

APR 13 2012

Date

Appendix A – Intervenors

Intervenors	Document Number
Iron Bridge Public School	CMD 11-H18.2
Milltown Motors Ltd.	CMD 11-H18.3
Blind River District Health Centre	CMD 11-H18.4
École secondaire catholique Jeunesse-Nord	CMD 11-H18.5
Kelly James	CMD 11-H18.6
Huron North	CMD 11-H18.7
Town of Blind River	CMD 11-H18.8
Seniors Club 270	CMD 11-H18.9
Ontario Provincial Police	CMD 11-H18.10
Marilyn Routly	CMD 11-H18.11
Jackie Brimblecombe	CMD 11-H18.12
Dr. R. Fryer Professional Dentistry Corporation	CMD 11-H18.13
Port Hope and District Chamber of Commerce	CMD 11-H18.14
Gerhard Heinrich	CMD 11-H18.15
Rockhaven School for Exceptional Children	CMD 11-H18.16
Huron Pines Golf & Country Club	CMD 11-H18.17
Suzanne Frankcom-Wright	CMD 11-H18.18
Municipality of Huron Shores	CMD 11-H18.19
Gerard Rainville	CMD 11-H18.20
Blind River Public Library	CMD 11-H18.21
Mississauga First Nation	CMD 11-H18.22
Community Care Northumberland	CMD 11-H18.23
HMC Consulting	CMD 11-H18.24
Physicians for Global Survival	CMD 11-H18.25
Michael Murchie	CMD 11-H18.26
Victor Allan Glover	CMD 11-H18.27
W.C. Eaket Secondary School	CMD 11-H18.28
Northumberland Manufacturers' Association	CMD 11-H18.29
Robert V. Gallagher	CMD 11-H18.30
McMaster University	CMD 11-H18.31
City of Elliot Lake	CMD 11-H18.32
Habitat for Humanity Northumberland	CMD 11-H18.33
Canadian Nuclear Association	CMD 11-H18.34
Serpent River First Nation represented by N. Meawasige and D. Leeder	CMD 11-H18.35 CMD 11-H18.35A
International Institute or Concern for Public Health (IICPH) represented by A. Tilman	CMD 11-H18.36 CMD 11-H18.36A CMD 11-H18.36B
Northwatch represented by B. Lloyd	CMD 11-H18.37 CMD 11-H18.37A CMD 11-H18.37B
Andrew Johncox	CMD 11-H18.38
Tyler Rouse	CMD 11-H18.39