



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# Record of Proceedings, Including Reasons for Decision

In the Matter of

Proponent Dalhousie University

Subject Application for the Issuance of a  
Decommissioning Licence for the Dalhousie  
University SLOWPOKE-2 Reactor Facility

Hearing Date January 20, 2011

## **RECORD OF PROCEEDINGS**

Proponent: Dalhousie University

Address/Location: 6299 South Street, Halifax, Nova Scotia, B3H 4H6

Purpose: Application for the Issuance of a Decommissioning Licence for the Dalhousie University SLOWPOKE-2 Reactor Facility

Application received: March 5, 2010

Date of hearing: January 20, 2011

Location: Canadian Nuclear Safety Commission (CNSC) Headquarters,  
280 Slater St., Ottawa, Ontario

Members present: M. Binder, Chair

Secretary: M.A. Leblanc

Recording Secretary: D. Major

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## Introduction

1. Dalhousie University (DU) has applied to the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) for the issuance of a Decommissioning Licence valid for a period of five years and the revocation of the current Non-Power Operating Licence for the Dalhousie University SLOWPOKE-2 Reactor (DUSR) Facility located in Halifax, Nova Scotia.
2. The DUSR Facility is part of DU's Trace Analysis Research Centre. The current non-power reactor operating licence, NPROL-17.03/2013, is valid until June 30, 2013. In November 2004, the Canadian Nuclear Safety Commission (CNSC) received a notice from DU of its intent to de-fuel and decommission the DUSR Facility. At that time, DU had provided a brief outline of the project to initiate the environmental assessment (EA) process. At the request of the proponent, the EA process was put on hold in May 2006. In July 2008, DU notified the CNSC of its intention to proceed with decommissioning and the CNSC re-initiated the EA process. The EA screening report was developed by CNSC staff and was accepted by the Commission during an abridged hearing held in January 2011, as an initial step prior to considering the decommissioning licence application.
3. The Project, as described in Dalhousie University's project description, includes the following components:
  - preparation of the rooms in the building where the reactor is located, by removal of all items not required for the defueling and decommissioning process;
  - preliminary surveys to identify areas with potential radioactive contamination;
  - defueling of the reactor and disposal of the fuel;
  - dismantling of the reactor components and identifying radioactive, contaminated, hazardous, and clean components;
  - packaging and transportation of all radioactive, contaminated, hazardous, and clean components;
  - packaging and transportation of all radioactive components for authorized disposal or storage;
  - disposal of other radioactive and non-radioactive wastes; and
  - decontamination of the site to render it free of residual radioactive contamination.
4. DUSR has hired AECL as the sole contractor to conduct the decommissioning activities of the DUSR facility. The AECL activities on the DUSR-Decommissioning Project are executed under AECL CANDU services, within the CANDU Reactor Division.

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

### Issue

5. In considering the application, the Commission was required to decide, pursuant to subsection 24(4) of the NSCA:
  - a) if DU is qualified to carry on the activity that the licence would authorize; and
  - b) if, in carrying on that activity, DU 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.

### Hearing

6. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission to review the application. The Commission, in making its decision, considered information presented for a hearing held on January 20, 2011 in Ottawa, Ontario. The hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*<sup>2</sup>. During the hearing, the Commission considered written submissions from CNSC staff (CMD 11-H104) and DU (CMD 11-H104.1).

### **Decision**

7. 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 DU is qualified to carry on the activity that the licence will authorize. The Commission is of the opinion that DU, 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*, issues Dalhousie University's Decommissioning Licence NPRDL-W4-2010-1.00/2015 for its Dalhousie University SLOWPOKE-2 Reactor Facility located in Halifax, Nova Scotia. The licence is valid from January 14, 2011 to December 31, 2015; and

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, concurrently revokes Dalhousie University's Non-Power Operating Licence NPROL-17.03/2013 for its Dalhousie University SLOWPOKE-2 Reactor Facility located in Halifax, Nova Scotia.

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<sup>2</sup> Statutory Orders and Regulations (SOR) /2000-211.

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-H104.

### **Issues and Commission Findings**

9. In making its licensing decision, the Commission considered a number of issues relating to DU's qualification to carry out the decommissioning of the DUSR Facility 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.
10. CNSC staff reviewed the following safety and control areas associated with DU's decommissioning project:
  - Management System;
  - Human Performance Management;
  - Operating Performance;
  - Safety Analysis;
  - Radiation Protection;
  - Conventional Health and Safety;
  - Environmental Protection;
  - Emergency Management and Fire Protection;
  - Waste Management;
  - Security;
  - Safeguards; and
  - Packaging and Transportation.

### **Management System**

11. In reference to the management system and the organizational structure, CNSC staff reviewed DU's Quality Assurance Oversight Plan and Quality Assurance Plan against the requirements stated in section 14 of CNSC Regulatory Guide G-219, "*Decommissioning Planning for Licensed Activities*" and CSA Standard N286.6-98, "*Decommissioning Quality Assurance for Nuclear Power Plants*" and found the plans to be acceptable.
12. CNSC staff also reviewed 15 additional procedural documents and 11 decommissioning work plans and decommissioning instructions submitted by DU and are satisfied with the submissions. CNSC staff considers the organizational structure and the management system plans for decommissioning acceptable.
13. Based on the above information, the Commission concludes that DU has in place the necessary programs in the areas of quality management to assure adequate performance at the facility during decommissioning.

## **Human Performance Management**

14. In regards to Human Performance Management, CNSC staff reported on DU's Human Factors and Personnel Training.

### *Human Factors*

15. CNSC staff reviewed the Human Factors Engineering Program Plan and a Human Factors Engineering Summary Report submitted by DU and found them to be acceptable. CNSC staff reported that both the plan and the report provided input to the development of procedures that will be used during the decommissioning work and that the result of the Task Analysis was used as input to design, procedure development and training activities.
16. CNSC staff also reported that table-top walkthroughs of the decommissioning instructions were done with the participation of the Human Factor Designer. CNSC staff noted that all dispositions resulting from the Task Analysis recommendations are complete.

### *Training, Examination and Certification*

17. DU provided information to the CNSC on their training program and indicated that AECL staff is required to complete basic industrial safety and radiological training at the DUSR facility. Further, DU will also perform a review of training and qualifications of employees assigned to work at the DUSR facility to ensure they meet minimum qualification requirements. DU indicated that the SLOWPOKE Reactor Engineer is authorized by AECL and certified by the CNSC to operate the reactor and perform reactivity adjustments, and that the SLOWPOKE Reactor Technician is authorized by AECL and certified by the CNSC to seal and unseal the reactor container, to open the container and access the core for various tasks.
18. CNSC staff reviewed DU's Decommissioning Training Plan which provides an overview of the Systematic Approach to Training. CNSC staff concluded that the proposed instructional methods are appropriate to achieve the training objectives of the plan and is satisfied that the required training knowledge, skills and abilities will be provided by the proposed Training Plan.

### *Conclusion on Performance Management*

19. Based on the above information, the Commission concludes that DU has in place the necessary programs in the areas of human factors and training to assure adequate performance at the facility during decommissioning.

## **Operating Performance**

20. During the first stages of reactor disassembly, the reactor will be required to be operated on low power in order to monitor criticality. CNSC staff therefore examined DU's operating experience and adequacy of procedures. Also, CNSC staff noted that the proposed Decommissioning Licence will require some provisions similar to the Operating Licence to allow the SLOWPOKE-2 reactor to be operated prior to and while undergoing decommissioning.

### *Operating Experience*

21. CNSC staff reported that the DUSR was in service from 1976 to 2008 and that during this period of time, no contamination events resulting from the operation of the reactor were recorded.
22. CNSC staff noted that the SLOWPOKE-2 reactor was designed as a fail-safe reactor that cannot be made critical unless the reactor core is encapsulated in beryllium reflectors. CNSC staff also noted that some neutron absorbing reactor components must be removed before the beryllium shims which will result in a gain in reactivity. CNSC staff reported that the excess reactivity will be monitored and maintained below the excess reactivity limit for the core by having the reactor operating and that measurements will be taken of the excess reactivity so that the starting point is well known. CNSC staff also reported that once the beryllium shims are removed, the reactor will become sub-critical.

### *Operating Procedures*

23. CNSC staff reviewed the following documentation submitted by DU: Operating and Routine Maintenance, Generic Decommissioning Procedure, Reactor Manual, and Commissioning and Nuclear Maintenance. CNSC staff noted that the Generic Decommissioning Procedure indicates how the reactor is to be disassembled and contains the core procedures that are followed in the detailed decommissioning plan.

### *Conclusion on Operating Performance*

24. 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, DU will provide adequate protection to the health and safety of persons, the environment and national security.
25. Based on its consideration of the presented information, the Commission concludes that DU has the appropriate operating procedures in place to adequately carry out the activities under the proposed licence.



### **Safety Analysis**

26. For safety analysis, CNSC staff assessed information submitted by DU related to hazard analyses, seismic, fire and flood hazards, and criticality safety.
27. In their application for a Licence to Decommission, DU provided information on their safety assessment to CNSC staff. DU indicated that a Hazard Analysis was performed in order to identify potential radiological, chemical and industrial hazards that could be encountered during the decommissioning of the DUSR. DU also indicated that the Hazard Analysis also identifies the measures intended to prevent accidental releases of radioactive or hazardous materials or to mitigate the effects of such releases on the health and safety of the workers involved in the decommissioning activities.
28. CNSC staff assessed hazards associated with expected radiation fields and specific hazards associated with the decommissioning project by reviewing the Radiation Physics Assessment, Out-of-Reactor Criticality Safety Assessment, Radiological Consequences Assessment Report, and Hazard Analysis Report documents submitted by DU.
29. With respect to the Hazard Analysis Report, CNSC staff reported that the plan as presented was acceptable with a few clarifications to which DU provided suitable responses.
30. CNSC staff reported that information related to seismic, fire and flood hazards from the existing facility is found under the Operating Licence and is documented in the application for a Licence to Decommission and the detailed decommissioning plan.
31. CNSC staff reviewed DU's criticality analysis report and found that this report followed the requirements and recommendations given in CNSC Regulatory Document RD-327, "Nuclear Criticality Safety".
32. CNSC staff reported that a full assessment was performed since the reactor core is characterized as having a large quantity of fissionable material and that the assessment was limited to the DUSR core removal. CNSC staff also reported that the assessment addressed the applicable acceptance criteria in RD-327 and GD-327 "Guidance on Nuclear Criticality Safety".
33. The Commission accepts CNSC staff's opinion that, given the mitigation measures and safety programs that are in place or will be in place to control hazards, DU will provide adequate protection to the health and safety of persons, the environment and national security.

### **Radiation Protection**

34. DU submitted documents pertaining to radiation protection during decommissioning activities for the DUSR Decommissioning Program, which are adapted from AECL's Radiation Protection Program. CNSC staff reviewed DU's submissions and found them to be acceptable in assuring the radiation protection of workers and the public over the proposed decommissioning project. CNSC staff also found the submissions to demonstrate that the proposed measures for the decommissioning project meet CNSC staff's expectations.
35. In regards to doses to workers, DU indicated in their application that Action Levels for radiation protection are specified in terms of dose to decommissioning personnel (who are all Nuclear Energy Worker (NEW)) and are significantly below the dose limits defined in CNSC's *Radiation Protection Regulations*<sup>3</sup>. CNSC staff reported that DU has calculated the maximum potential individual dose for the project as being 1.13 mSv, which is well below the prescribed annual effective dose limit of 50 mSv that may be received by a NEW according to Section 13 of the CNSC's *Radiation Protection Regulations*.
36. CNSC staff noted that an ALARA assessment was performed by AECL on behalf of DU, which assessed a change in sequencing of work in a specified decommissioning work package. CNSC staff stated that projected estimated collected dose for the project was reduced as a result of a change in the sequencing of work for a specified task.
37. The Commission accepts CNSC staff's opinion that, given the mitigation measures and safety programs that are in place or will be in place to control hazards, DU will provide adequate protection to the health and safety of persons, the environment and national security.

### **Conventional Health and Safety**

38. DU specified in their application for a Licence to Decommission that all work in the DUSR facility will be performed in accordance with applicable labour codes and regulations. CNSC staff indicated that AECL employees assisting in decommissioning work will be federally regulated.
39. CNSC staff reviewed the Hazard Analysis Report submitted by DU for compliance with the applicable labour code and for adequate housekeeping and hazards control.
40. CSNC staff reported that the Hazard Analysis Report looked at physical, radiological and conventional health and safety threats that may be of concerns and that may arise, and developed mitigating measures for the identified hazards.

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<sup>3</sup> SOR/2000-203

41. 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, DU will provide adequate protection to the health and safety of persons, the environment and national security.

### **Environmental Protection**

42. In their application, DU indicated that releases of radioactive material to the environment are expected to be below the Exemption Levels and Unconditional Clearance Levels for radioisotopes listed in Schedules 1 and 2 respectively of the NSCA, *Nuclear Substances and Radioactive Devices Regulations*<sup>4</sup>, and that monitoring will be conducted within the facility to confirm airborne concentrations remain below the Exemption Levels.
43. CNSC staff reviewed submissions from DU related to the following areas of environmental protection: effluent and emissions, environmental monitoring, estimated dose to the public, and environmental risk assessment.
44. CNSC staff reported that effluents and emissions associated with the decommissioning project will be similar to or less than those associated with the operating licence and that reactor emissions will be caught by the HEPA filter and ventilation system installed for the normal operation of the reactor.
45. CNSC staff indicated that the main effluent – the reactor pool water – will be purified by the reactor ion exchange system before being disposed of in the Halifax sanitary sewer system. CNSC staff reported that the pool water will be purified in order to meet the Halifax Regional Municipality release criteria. CNSC staff further reported that the expected concentrations of radionuclides and hazardous substances in the pool water following purification are low with a radiation dose of <0.01 mSv/y to a sewage plant worker, which is below the regulatory exemption level and 1/100<sup>th</sup> of background radiation. CNSC staff also noted that the Halifax Regional Water Commission does not have any objections to this planned discharge.
46. CNSC staff reported that information relating to environmental monitoring and estimated dose to the public are set out in the Environmental Protection Requirements and Action Levels documents. CNSC staff found these two documents to be acceptable. CNSC staff also reported that information relating to the environmental risk assessment is provided in the Environmental Impact Statement, which is considered acceptable.
47. Further, DU indicated that the Environmental Protection Plan mandates compliance with applicable federal and Nova Scotia provincial legislation, which include but are not limited to the acts, regulations and regulatory documents.

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<sup>4</sup> SOR/2000-207

48. The Commission accepts CNSC staff's opinion that, given the mitigation measures and safety programs that are in place or will be in place to control hazards, DU will provide adequate protection to the health and safety of persons, the environment and national security.

### **Emergency Management and Fire Protection**

49. DU submitted with their application an Emergency Response Plan to address the additional hazards and events that could arise during decommissioning of the DUSR facility.
50. DU's emergency response plan was reviewed by CNSC staff and CNSC staff reported that the submission, in conjunction with the standard *AECL Emergency Preparedness Response Plan*, adequately addresses radiological and conventional emergency response during the DUSR Facility project.

#### *Emergency Preparedness*

51. CNSC staff reported that DU's emergency response plan provides procedures and corresponding checklists for use by personnel to respond to both radiological and non-radiological hazards originating from or affecting the facility during the decommissioning project. CNSC staff added that this emergency response plan includes off-hour DUSR Facility project emergency response personnel who may be contacted.

#### *Fire Protection*

52. CNSC staff reported that information pertaining to fire protection and response is documented and was included in the application for a licence to decommission and in the detailed decommissioning plan. CNSC staff considers the information submitted relating to fire protection to be acceptable.

#### *Conclusion on Emergency Preparedness and Fire Protection*

53. Based on the information provided, the Commission is of the opinion that DU has appropriate measures in place in the area of emergency preparedness and fire protection.

### **Waste Management**

54. In regards to waste management, CNSC staff reviewed DU's Waste Management Plan in the areas of waste minimization, segregation and characterization and waste storage and processing.

55. CNSC staff noted that, due to the minimal types of waste to be produced during the decommissioning project, there is little opportunity for waste processing opportunities.
56. CNSC staff reported that the Waste Management Plan adequately defines the processes used for waste minimization, segregation, characterization and storage and meets the requirements of AECL's policies, practices and operational procedures for the management of radioactive wastes at AECL in accordance with AECL's environmental and radiation protection programs. CNSC staff indicated that storage of radioactive waste is covered under Radiation Protection Requirements, the application for a Licence to Decommission and the detailed decommissioning plan.
57. CNSC staff reported that DU shall minimize waste through good housekeeping, appropriate practices, and decontamination and that all radioactive waste generated through the project shall be handled and stored so that the Derived Release Limits are not exceeded and to maintain doses and releases as low as reasonably achievable (ALARA).
58. Based on the above information, the Commission is of the opinion that appropriate provisions are in place regarding the management of waste during the proposed project.

### **Security**

59. CNSC staff reported that the security organization at the DUSR facility has been established for many years and will continue to be in place during the decommissioning work as required under the Operating Licence and as described in Attachment 9 to the Operating Licence application, dated November 14, 2002.
60. CNSC staff also reported that additional measures will be taken on the site prior to, and after, shipment of the core as described in the Site Security Plan.
61. The Commission concludes that DU has made adequate provisions for ensuring the physical security of the facility, and is of the opinion that DU will continue to make adequate provisions during the proposed licence period.

### **Safeguards**

62. CNSC staff reported that safeguard measures will be established for the decommissioning work and will remain in place until the IAEA and the CNSC have removed them. CNSC staff also indicated that the proposed licence retains the required safeguards obligations.
63. DU indicated that they will keep the CNSC Office of International Affairs informed of planned transfer and schedule for safeguards and that they will follow agreements established with the CNSC and IAEA regarding the planned safeguards, the notification requirements and the form of these notifications.

64. In addition, CNSC staff noted that licence condition 2.10 of the proposed licence has been updated to reference the requirements of RD-336, "Accounting and Reporting of Nuclear Material".
65. Based on the above information, the Commission is satisfied that DU will make adequate provisions in the areas of safeguards and non-proliferation at the DUSR Facility that are necessary for maintaining national security and measures necessary for implementing international agreements to which Canada has agreed.

### **Packaging and Transport**

66. CNSC staff reviewed DU's Transportation Plan and Waste Management Plan for adherence to the CNSC's, Transport Canada's and international regulations on packaging and transport. CNSC staff noted that AECL will be overseeing and conducting all radioactive material transportation requirements on DU's behalf.
67. CNSC staff reported that the transportation program encompasses two main tasks: shipment of the reactor core to the United States Department of Energy's Savannah River Site and shipment of radioactive decommissioning waste to Chalk River Laboratories.
68. CNSC staff indicated that the transport package used to ship the SLOWPOKE-2 reactor core is certified by the CNSC. CNSC staff also listed all activities to be completed prior to transport in order to acquire the necessary approvals for the shipment of the core.
69. CNSC staff also indicated that other radioactive wastes will be shipped in appropriate transport packages to the Chalk River Laboratories and that all transport requirements set out by the CNSC and Transport Canada are to be adhered to.
70. The Commission accepts CNSC staff's opinion that, given the mitigation measures and safety programs that are in place or will be in place to control hazards, DU will provide adequate protection to the health and safety of persons, the environment and national security.

### **Application of the *Canadian Environmental Assessment Act***

71. Before making a licensing decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*<sup>5</sup> (CEAA) have been fulfilled.

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<sup>5</sup> S.C. 1992, c. 37

72. Under the CEAA, the CNSC has a responsibility to conduct a Screening-Level Assessment for the Project. There is no provincial EA requirement, and the CNSC is the only Responsible Authority for this project.
73. The EA screening report was developed by CNSC staff and was accepted by the Commission during an abridged hearing held in January 2011 as an initial step prior to considering the decommissioning licence application.
74. Based upon the above assessment, the Commission is satisfied that the requirements for an environmental assessment under the CEAA for DU's application for a decommissioning licence have been met.

### **Aboriginal Consultation**

75. CSNC staff assessed the requirement for aboriginal consultation in relation to this project. While no Aboriginal communities live in the local area, aboriginal communities are located in neighbouring areas. CNSC staff reported that they sent a letter to the Executive Director of the Confederacy of Mainland Mi'kmaq informing them of the proposed decommissioning project and a copy of the "Draft EA Screening Report" and have not received comments.
76. Based on the above information, the Commission acknowledges the efforts made in relation to the CNSC's obligations regarding aboriginal consultation and the Legal Duty to Consult.

### **Financial Guarantee**

77. 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. In order to ensure that adequate resources are available for a safe and secure decommissioning of the DUSR Facility, the Commission requires that an adequate financial guarantee for realization of the planned activities is put in place and maintained in a form acceptable to the Commission throughout the licence period.
78. CNSC staff reported that in February 2005, the Operating Licence for the DUSR Facility was amended to accept a Financial Guarantee for the facility and that on October 20, 2009, the Board of Governors of DU approved the expenditure of \$6 432 000 to complete the decommissioning of the reactor. A contract with AECL was consequently issued for \$4 857 000, and the remaining funds were assigned to internal expenses.
79. Based on this information, the Commission considers that the financial guarantee is acceptable for the purpose of the current application for a Licence to Decommission.

### **Public Information**

80. In its application for a Decommissioning Licence, DU provided an overview of their Public Information Program. DU provides ongoing communication to the University community as well as neighbours and the extended community, including Halifax Regional Municipality, through a variety of mechanisms that include articles in local newspapers, media releases and public consultation activities.
81. CNSC staff also reported that the public was provided with an opportunity to comment on the “Draft EA Screening Report” during the Public Review and Comment period. CNSC staff indicated that three requests for copies of the “Draft EA Screening Report” were made from the public but no comments were received.
82. CNSC staff reported that DU implemented a public communications program for the project targeting the university faculty, university students, the aboriginal community, the local community and external interest groups. CNSC staff also reported that DU has had many consultative meetings since October 2009 and that DU will continue to consult with the public and other stakeholders on the progress and status of the project. CNSC staff did not note any issues or concerns expressed by the public in relation to this project.
83. Based on this information, the Commission is satisfied that DU’s public information program meets regulatory requirements and is effective in keeping the public informed on the facility operations.

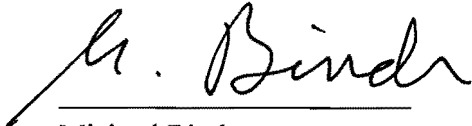
### **Licence Length and Conditions**

84. In the Application for a Licence to Decommission the DUSR Facility, Dalhousie University requested a five-year decommissioning licence but noted that they anticipate meeting the conditions necessary for the issuance of a Licence to Abandon prior to the expiry of the Decommissioning Licence.
85. Based on information and considerations contained herein, the Commission is of the opinion that a decommissioning licence until December 31, 2015 is appropriate. The Commission accepts the licence conditions and related Licence Conditions Handbook as recommended by CNSC staff.
86. CNSC staff noted that a separate Transport Licence and an Export Licence issued by a Designated Officer will be required to transport the core off site. An application by DU for a Transport Licence was received by CNSC staff in October 2010.



**Conclusion**

87. The Commission has considered the information and submissions of CNSC staff and the applicant.
88. The Commission concludes that the requirements for an environmental assessment of the proposed operation of the facility, pursuant to the *Canadian Environmental Assessment Act*, have been met.
89. The Commission is satisfied that the applicant meets the requirements of subsection 24(4) of the *Nuclear Safety and Control Act*. That is, the Commission is of the opinion that the applicant is qualified to carry on the activity that the proposed licence will authorize and that the applicant 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.
90. Therefore, the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, issues DU's Decommissioning Licence NPRDL-W4-2010-1.00/2015 for its DUSR Facility located in Halifax, Nova Scotia. The licence will be valid from January 14, 2011 to December 31, 2015.
91. The Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, concurrently revokes Dalhousie University's Non-Power Operating Licence NPROL-17.03/2013 for its Dalhousie University SLOWPOKE-2 Reactor Facility located in Halifax, Nova Scotia.
92. The Commission includes in the licence the conditions as recommended by CNSC staff and set out in the draft licence attached to CMD 11-H104. The Commission also accepts the related Licence Conditions Handbook attached to CMD 11-H104.



Michael Binder  
President,  
Canadian Nuclear Safety Commission

JAN 20 2011

Date