



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant TRIUMF Accelerators Inc.

Subject Application to Amend the TRIUMF Particle
Accelerator Operating Licence

Hearing
Date August 12, 2011

RECORD OF PROCEEDINGS

Applicant: TRIUMF Accelerators Inc.

Address/Location: 4004 Wesbrook Mall, Vancouver, BC, V6T 2A3

Purpose: Application to amend the TRIUMF Particle Accelerator Operating Licence

Application received: June 10, 2011

Date of hearing: August 12, 2011

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

Members present: M. Binder, Chair

Secretary: M. Leblanc

Recording Secretary: D. Major

Licence: Amended

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Introduction

1. TRIUMF Accelerators Inc. (TRIUMF) has applied to the Canadian Nuclear Safety Commission¹ (CNSC) for an amendment to its operating licence for the TRIUMF particle accelerator facility, located on the campus of the University of British Columbia in Vancouver, British Columbia. The current licence, PA1OL-01.04/2012, expires on March 31, 2012.
2. TRIUMF is the national centre for subatomic research and conducts fundamental research in physics and applied sciences. Under the licences, TRIUMF operates one Class IB and six Class II particle accelerator facilities and produces and uses a variety of radioisotopes.
3. TRIUMF requested one amendment to its Class IB licence that involves replacing the TRIUMF site plan listed in Appendix A of the licence with a new site plan and several detailed drawings which illustrate the alterations to the security fence and access/egress control points for the TRIUMF site. The alterations are necessary to facilitate site preparation and construction of the new Advanced Rare IsotopE Laboratory (ARIEL) Class II electron accelerator facility.

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 TRIUMF is qualified to carry on the activity that the amended licences would authorize; and
 - b) if in carrying on that activity, TRIUMF 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

5. 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 August 12, 2011 in Ottawa, Ontario. During the hearing, the Commission considered written submissions from CNSC staff (CMD 11-H118) and TRIUMF (CMD 11-H118.1).

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, chapter (c.) 9.

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 TRIUMF has met the conditions of subsection 24(4) of the NSCA. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, amends the Particle Accelerator Operating Licence PA1OL-01.04/2012 issued to TRIUMF Accelerators Inc. for its particle accelerator facility located in Vancouver, British Columbia. The amended licence, PA1OL-01.05/2012, is valid until March 31, 2012.

Issues and Commission Findings

Qualifications and Protection Measures

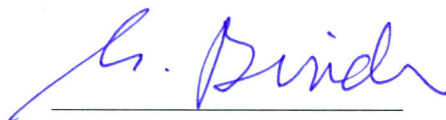
7. CNSC staff reported that they had assessed the request for licence amendment submitted by TRIUMF. In their application received on June 10, 2011, TRIUMF requested that the Commission authorize the relocation of a section of the security fence on the north side of the site and to alter the access locations and security measures for controlling access to the site to facilitate the construction of the new ARIEL electron accelerator facility. CNSC staff reported that additional information and clarifications were requested regarding TRIUMF's application and that a revised application was received on July 6, 2011.
8. CNSC staff explained that the requested changes will allow for construction of ARIEL to be carried out outside the secure area. CNSC staff noted that the ARIEL facility is a Class II facility and its construction will be licensed through a Designated Officer authorized by the Commission. CNSC staff also noted that, upon completion of construction, TRIUMF's security fence and security gate for staff access to the site will be moved to integrate ARIEL within the secure site perimeter.
9. CNSC staff reviewed the security implications associated with relocating the security fence on the north side of TRIUMF's site and the alterations to the access locations and security measures for controlling access to the site. CNSC staff reported that the specifications for the temporary fence will be equivalent to the existing perimeter security fence and will provide a comparable level of security. CNSC staff also reported that the temporary fence will be installed and, upon completion of the construction of the ARIEL facility, removed in a manner that minimizes any potential security risk to the fenced TRIUMF site compound area.
10. Furthermore, CNSC staff reported that a separate safety fence will encompass the construction area itself, with restricted access to authorized construction personnel.

Application of the *Canadian Environmental Assessment Act*

11. Before making a licensing decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*³ (CEAA) have been fulfilled.
12. CNSC staff reported that it had completed an Environmental Assessment (EA) determination. CNSC staff determined that the project is excluded under section 7 of the CEAA, and that there was no requirement for an EA, pursuant to subsection 5(1) of the CEAA.
13. The Commission accepts the opinion of CNSC staff and is satisfied that all applicable requirements of the CEAA have been fulfilled.

Conclusion

14. The Commission has considered the information and submissions of TRIUMF and CNSC staff and is satisfied that TRIUMF is qualified to conduct the activities authorized by the requested licence amendment and will, in carrying out those activities, make adequate provision for the protection of the environment and the health and safety of persons and the maintenance of national security.
15. The Commission therefore amends, pursuant to section 24 of the *Nuclear Safety and Control Act*, the operating licence PA1OL-01.04/2012 issued to TRIUMF Accelerators Inc. for its TRIUMF particle accelerator facility. The amended licence, PA1OL-01.05/2012, remains valid until March 31, 2012.



Michael Binder
President,
Canadian Nuclear Safety Commission

AUG 12 2011

Date

³ S.C. 1992, c. 37.