



I) **LICENCE NUMBER:** 17118-1-10.4

II) **LICENSEE**

Pursuant to section 24 of the Nuclear Safety and Control Act, this licence is issued to:

Landauer Inc.
2 Science Road
Glenwood . IL
60425-1586
USA

This licence replaces licence 17118-1-10.3.

III) **LICENCE PERIOD**

This licence is valid from: January 18, 2011 to May 31, 2012 unless otherwise suspended, amended, revoked or replaced.

IV) **LICENSED ACTIVITIES**

This licence authorizes the licensee to:

- (a) operate a dosimetry service listed in the Appendix: Dosimetry Service Type of this licence.
- (b) conduct licensed activities at the location(s) specified in the Appendix: Locations of Licensed Activities of this licence.

This licence is issued for: commercial dosimetry services - external radiation (591).

V) **CONDITIONS**

The contents of the appendices attached to this licence form part of the licence.

1. Operation Limitations

Subject to any other condition of this licence and unless otherwise permitted by the prior written approval of the Commission or a person authorized by the Commission, the licensee shall carry out the licensed activities in accordance with the documents or parts thereof referred to in the Appendix: Licence Document(s).
(2917-7)

2. Annual Compliance Report - Dosimetry Services

The licensee shall, within 90 days after the end of each calendar year, submit to the Commission or a person authorized by the Commission a report on the operation of the licensee's dosimetry service during that calendar year, in a form specified in the Appendix: Annual Compliance Report Form for Dosimetry Services of this licence.
(2420-4)

3. Filing Frequency – Dosimetry Services (45)



For the purposes of Section 19 of the Radiation Protection Regulations, the licensee shall file the information required by that section with the National Dose Registry not later than 45 days after the receipt of the dosimeters from its clients.

(2426-1)

4. Preliminary Unplanned Event Report – Dosimetry Services

The licensee shall make an immediate preliminary report to the Commission, or a person authorized by the Commission, on any unplanned event that affects, or has the potential to affect, the precision, accuracy and reliability of the dosimetry results obtained while carrying out the activities authorized by this licence.

(2430-2)

5. Unplanned Event Report – Dosimetry Services

The licensee shall submit a written report to the Commission, or a person authorized by the Commission, within 30 days of becoming aware of an unplanned event that affects, or has the potential to affect, the precision, accuracy and reliability of the dosimetry results obtained while carrying out the activities authorized by this licence. The report shall include details of the cause and consequences of the event, and any remedial actions taken or intended with respect to it.

(2431-1)

6. Notification of Compliance Action – Dosimetry Services

In the event that this licence is suspended, revoked, amended, or replaced by the Commission or a person authorized by the Commission as a result of non-compliance by the licensee with the Nuclear Safety and Control Act, the regulations or this licence, the Commission or authorized person shall have the right to notify the licensee's clientele or any of them of such licensing action, and give them such instructions as, in the opinion of the Commission or authorized person, the circumstances may require.

(2435-1)

7. Legal Agent – Non Canadian Licensees

The licensee shall appoint and at all times maintain a legal agent or attorney for service in Canada, and will provide the Commission with written notice of the name and address of the agent or attorney, and with written notice of any change of the agent or attorney or address within ten days of the change. In the event that the licensee makes or causes to be made any corporate registration or filing in any jurisdiction in Canada, the licensee shall promptly provide the Commission with a copy of any such registration or filing, a copy of any notice issued concerning such registration or filing, and satisfactory evidence from time to time that any such registration or filing continues in good standing.

(2455-1)

8. Rights and Obligations – Non Canadian Licensees

The licensee shall have the rights and be bound by the obligations and requirements set out in the Nuclear Safety and Control Act of Canada (the Act), the regulations made pursuant to that Act and this licence, as those documents or any of them are amended or replaced from time to time, in the same manner as if the licensee were a Canadian person or entity in Canada.

(2456-1)

9. On-site Compliance Verification – Non Canadian Licensees

In order to verify the licensee's compliance with the documents referred to in Appendix A: Licence Documents, or with any order or decision made under the Act, and to verify if the licensee is qualified to carry on the activity authorized by the licence, the licensee shall grant access at all reasonable times to its premises, operations,



facilities and records to inspectors of the Commission and to other persons authorized by the Commission, in the same manner as if the licensee were a Canadian person or entity in Canada.
(2457-4)

10. Request for Information – Dosimetry Services

The licensee, on request from time to time by the Commission or a person authorized by the Commission, shall provide for compliance purposes a current list of the licensee's clientele and mailing addresses, to be retained in confidence by the Commission.
(2460-1)

11. Inaccuracies Notification

The licensee shall report to the Commission or a person authorized by the Commission, as soon as is practicable, the discovery of any inaccuracy or incompleteness in the documents referred to in the Appendix: Licence Document(s).
(2920-6)



Designated Officer pursuant to paragraph 37(2)(c) of the Nuclear
Safety and Control Act



Appendix: Dosimetry Service Type

Landauer Inc.

ITEM	TYPE	DESCRIPTION
1	External	Luxel+ Model Pa and Ja
2	External	Model K and Model Z
3	Extremity	Model U ring dosimeter
4	Neutron	Refer to [A5]

end of appendix



Appendix: Location(s) of Licensed Activities

Landauer Inc.

2 Science Road
Glenwood Illinois
60425-1586
USA

end of appendix



Appendix: Licence Document(s)

LICENCE DOCUMENTS

- [A1] AECB Regulatory Standard S-106, Technical and Quality Assurance Standards for Dosimetry Services in Canada. A Joint Federal - Provincial Standard. 1998.03.20, Section 1, Section 2, Section 3.1, Section 4, Appendix A, Appendix D, Appendix E, Appendix G and Appendix H.
- [A2] Letter, R. Craig Yoder to M. Measures, Application for a Dosimetry Service Licence for the Canadian Nuclear Safety Commission (CNSC), February 18, 1999. (AECB Document No. 701892)
- [A3] Letter, R. Craig Yoder to M. Measures, March 8, 1999. (AECB Document No. 714017)
- [A4] Letter, R. Craig Yoder to M. Wood, December 2, 1999. (AECB Document No. 748266)
- [A5] Letter, C.N. Passmore to M.A. Mullan, "Request for Extremity and Neutron Dosimetry Information", July 15, 2003. (CNSC Document No. 1136931)
- [A6] Letter, C. N. Passmore to M. Mullan, "Notification of Equipment Changes" February 24, 2005. (CNSC Document No. 1255031)
- [A7] Letter, C. N. Passmore to M. Mullan, "Licence Renewal Request for Licence Number 17118-05.1" March 3, 2005. (CNSC Document No. 1239685)
- [A8] Letter, C.N. Passmore of Landauer to D. Mroz, CNSC, entitled: "Application for Dosimetry Service in Canada according to S-106 - Luxel+ Pa and Ja Badges," dated February 16, 2006. (CNSC Document No. 1310342)
- [A9] Letter, C.N. Passmore of Landauer to S. Djefal, CNSC, entitled: "Request to amend Dosimetry Service Licence (17118-1-10.1)" dated April 5, 2006. (CNSC Document No. 1311634)
- [A10] Letter, C.N. Passmore of Landauer to S. Djefal, CNSC, entitled: "Regarding the CNSC Staff comments on request to amend Dosimetry Service Licence," dated July 29, 2006. (CNSC Document No. 1326630)
- [A11] Letter, C. Passmore of Landauer to S. Djefal, CNSC, entitled: "Review of Landauer's response to CNSC Staff comments on Landauer Quality Assurance Manual Revision 7" dated November 27, 2006. (CNSC Document No. 1388265)

end of appendix



**APPENDIX: ANNUAL COMPLIANCE REPORT FORM
FOR
DOSIMETRY SERVICES**

PART A

Facility:

Licence No.:

Owner:

Reporting period:

Signing Authority:
(type or print)

Title:

Address:

Phone Number:

Fax Number:

PART B

For the reporting period, where applicable please provide:

1. the principal activities completed;
2. the results of the quality assurance program carried out in accordance with the documents listed in Appendix: Licence Document(s);
3. a summary description of events reported to the Commission pursuant to section 29 of the General Nuclear Safety and Control Regulations, and pursuant to the conditions of this licence;
4. a summary description of any changes in the organizational structure of the licensee and in the methods, procedures and equipment used to carry on the licensed activities;
5. a summary of the routine and any special performance test results performed during the year;
6. brief description of any non-conformance and subsequent corrective actions;
7. a summary of any changes in key technical and quality assurance dosimetry service personnel, including management;
8. a summary of pertinent training given to dosimetry service personnel;
9. the number of dose records for which incomplete information has been provided by the users during the year.

Licensee's Copy - Original



as well as the current total, and a summary of efforts towards reducing that number, i.e., provide a report which illustrates the monthly trend in rejected records and the effort taken by the dosimetry service to reduce the number of rejected records:

10. a list of major dosimetry service equipment either brought into or out of service during the year;
11. the approximate number of dosimeters in service;
12. the number and type of in-vitro bioassay samples analyzed;
13. the number and type of in-vivo counts carried out;
14. the number and type of non-routine in-vivo and/or in-vitro bioassay analyses performed;
15. the number of personal alpha dosimeters for radon progeny and long-lived radioactive dust;
16. a summary of your performance in the independent tests and information on new Quality Assurance initiatives, i.e. results of new, different tests of the dosimetry process.

PART C

I hereby certify that I have reviewed the documents referred to in the Appendix: Licence Document(s) of the licence and the facility has been operating in compliance with the licence except as noted here:

Signature:

Date:

Name:

(type or print)

Title:

Address:

Phone Number:

Fax Number:

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