

MEMORANDUM D19-2-1

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In Brief

Ottawa, April 6, 1994

SUBJECT

ATOMIC ENERGY CONTROL ACT
AND REGULATIONS

Appendix to this D Memorandum has been corrected to show the proper amounts in the Kilobecquerels' column. Minor word changes or additions, have also been made to the Memorandum and Appendix F.

Ottawa, August 19, 1993

SUBJECT

ATOMIC ENERGY CONTROL ACT
AND REGULATIONS

This Department assists the Atomic Energy Control Board (AECB) with the administration of the Atomic Energy Control Act and Regulations. This Memorandum outlines the provisions concerning the importation into Canada and the transshipment and in-transit movement through Canada of prescribed substances.

TABLE OF CONTENTS

	Page
Legislation	
Regulations	
Guidelines and General Information	
Importations, Transshipments, and In-Transit Shipments	
Application for Licences	
Lost Licences	
Exportation	
Labelling	
Detention	
Penalty Information	
Additional Information	
Appendix A Schedule I	
Appendix B Importation, Transshipment and In-Transit Movement of Radioactive Isotopes not Exceeding Scheduled Quantities	
Appendix C Single Shipment Authority	
Appendix D Multiple Shipment Authority	
Appendix E Specimen of Application for Licence to Import Uranium, Thorium, Plutonium, Other Radioactive Isotopes and Deuterium	
Appendix F Radiation Packaging Label	

Legislation

Section 2 of the Atomic Energy Control Act states that:

"prescribed substances" means uranium, thorium, plutonium, neptunium, deuterium, their respective derivatives and compounds and any other substances that the Board may by regulation designate as being capable of releasing atomic energy, or as being requisite for the production, use or application of atomic energy.

Regulations

1. Section 5 of the Atomic Energy Control Regulations states in part that:

- (a) no person shall import any prescribed substance except in accordance with a licence issued pursuant to Section 7,
- (b) a licence referred to in (a) above shall be produced by or on behalf of the licensee to a collector of Customs at the Customs Office of entry into Canada of the prescribed substance or at such other place as is designated by the Deputy Minister of National Revenue Customs, Excise and Taxation, before the prescribed substance is released for import.

2. Subsection 7(4) of the Atomic Energy Control Regulations states that:

"Subject to subsection 5, the Board or a designated officer may issue a licence for any purpose referred to above on receipt of a written application from the person requiring such licence."

GUIDELINES AND GENERAL INFORMATION

Importations, Transshipments, and In-Transit Shipments

1. To administer the Atomic Energy Control Act and Regulations, the Atomic Energy Control Board has interpreted transshipments and in-transit movements to be subjected to the import licence requirements outlined in subsection 1(a) (Regulations) of this Memorandum.

2. The procedures which apply to the importation, transshipment and in-transit movements of prescribed substances under the Atomic Energy Control Act and Regulations are designed to establish effective controls, to simplify the release of prescribed substances with appropriate documentation and to provide accurate and timely information to the Atomic Energy Control Board.

3. Appendix A outlines Schedule I of the Atomic Energy Control Regulations. The shipment of radioactive isotopes included in Parts I and II of this Schedule is authorized under General Permit

R1-1001 if the scheduled quantity is not exceeded. Appendix B outlines the procedures applicable to the importation, transshipment and in-transit movement of this category of radioactive isotope.

4. Single Shipment Authority procedures are outlined in Appendix C. Multiple Shipment Authority procedures are outlined in Appendix D.

Application for Licences

5. Application for licences to import, tranship, or for the in-transit movement of prescribed substances should be directed to the AECEB at the address provided in paragraph 13. A sample of this application appears as Appendix E.

6. In special circumstances when an importer/owner urgently requires a licence, he or she may request a licence from AECEB by facsimile. If it is a valid request, confirmation will be faxed to the Customs Office with confirming licence to follow immediately.

Lost Licences

7. If a licence has been lost or destroyed, the Atomic Energy Control Board is to be notified and a new licence requested.

Exportation

8. The exportation of prescribed substances is subject to the provisions of the Export and Import Permits Act and the Atomic Energy Control Act which are administered under the provisions of the Export and Import Permits Act. The provisions are outlined in Memorandum D19-10-3, Export and Import Permits Act (Exportations).

Labelling

9. Most vehicles and packages containing radioactive substances bear one or more labels or placards to indicate the technical name of the contents and the quantity, nature and degree of radiation. Appendix F outlines the information displayed on these labels.

Detention

10. Importations, transshipments and in-transit movements of prescribed substances will be detained by the Customs Inspector at the point of importation when:

- (a) the goods do not conform to those described on the licence (any tolerance allowed will be shown in the licence); and
- (b) the goods are not accompanied by a valid licence.

11. Detained goods will be released only on receipt of written or faxed authorization by the Atomic Energy Control Board. It will be

the responsibility of the importer/owner to obtain such authorization.

Penalty Information

12. Any person found guilty of an offence against the Atomic Energy Control Act or its Regulations is liable to a fine of up to \$10 000 or to imprisonment for up to five years, or both.

Additional Information

13. Questions concerning the Atomic Energy Control Act and Regulations, the issue of licences, or licence or commodity clarification should be directed to:

Radioisotopes and Transportation Division
Atomic Energy Control Board
P.O. Box 1046
Ottawa, Ontario
K1P 5S9

Telephone: 613 996-0437 or 995-2467
Facsimile: 613 995-5086

14. Questions concerning Customs administration of these procedures should be directed to:

Revenue Canada
Customs, Excise and Taxation
Ottawa, Ontario
K1A 0L5

Attention: Inspection and Control Division

Telephone: 613 946-0240
Facsimile: 613 952-1698

APPENDIX A

SCHEDULE I

(s. 2)

PART I

Note: "microcurie" means the quantity of a radioactive isotope that is disintegrating at a predetermined rate. Its metric equivalent is in "becquerels".

Scheduled Quantities of Radioactive Prescribed Substances:

Single Isotopes	Symbol	Microcuries	Kilobecquerels
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Actinium 227	Ac227	0.1	3.7
Antimony 124	Sb124	10	370
Arsenic 74	As74	10	370
Barium 140	Ba140	10	370
Beryllium 7	Be7	100	3700
Bismuth 207	Bi207	10	370
Bismuth 210	Bi210	1	37
Bromine 82	Br82	10	370
Cadmium 109	Cd109	10	370
Calcium 45	Ca45	10	370
Calcium 47	Ca47	10	370
Carbon 14	C14	100	3700
Cerium 144	Ce144	1	37
Cesium 134	Cs134	10	370
Cesium 137	Cs137	10	370
Chlorine 36	Cl36	10	370
Chromium 51	Cr51	100	3700
Cobalt 57	Co57	10	370
Cobalt 58	Co58	10	370
Cobalt 60	Co60	10	370
Copper 64	Cu64	100	3700
Copper 67	Cu67	100	3700
Gold 198	Au198	10	370
Hydrogen 3	H3	1000	37000
Iodine 123	I123	100	3700
Iodine 125	I125	1	37
Iodine 131	I131	1	37
Iodine 132	I132	10	370
Indium 113	In113	100	3700
Indium 114	In114	10	370
Iridium 192	Ir192	10	370
Iron 55	Fe55	100	3700
Iron 59	Fe59	10	370
Krypton 85	Kr85	100	3700
Lanthanum 140	La140	10	370
Lead 210	Pb210	0.1	3.7
Manganese 54	Mn54	10	370
Manganese 56	Mn56	10	370
Mercury 197	Hg197	100	3700
Mercury 203	Hg203	10	370
Molybdenum 99	Mo99	10	370
Nickel 63	Ni63	10	370
Phosphorus 32	P32	10	370
Polonium 210	Po210	0.1	3.7
Potassium 42	K42	10	370
Promethium 147	Pm147	10	370
Radium 226	Ra226	0.1	3.7
Rubidium 86	Rb86	10	370
Scandium 46	Sc46	10	370
Selenium 75	Se75	10	370
Silver 110	Ag110	10	370
Sodium 22	Na22	10	370
Sodium 24	Na24	10	370

Strontium 85	Sr85	10	370
Strontium 89	Sr89	10	370
Strontium 90	Sr90	0.1	3.7
Sulphur 35	S35	10	370
Technetium 99	Tc99	10	370
Technetium 99m	Tc99m	100	3700
Tin 133	Sn133	10	370
Thallium 204	Tl204	10	370
Xenon 133	Xe133	100	3700
Xenon 135	Xe135	100	3700
Yttrium 87	Y87	10	370
Yttrium 90	Y90	10	370
Zinc 65	Zn65	10	370

Except as otherwise specified by the Board:

Isotopes of elements of atomic number greater than 89

0.1

3.7

Other isotopes not referred to above

1

37

Note: Atomic number is the designation applied to an isotope name which differentiates it within its family group, i.e., Bismuth 207, Bismuth 210.

PART II

Multiple Isotopes

The scheduled quantity shall be determined by the equation

A_1 plus A_2 plus A_3 plus . . . equals or is less than 1

M_1 M_2 M_3

where A_1 , A_2 , A_3 , etc., are the quantities of the isotopes involved and M_1 , M_2 , M_3 , etc., are the scheduled quantities of such isotopes.

APPENDIX B

IMPORTATION, TRANSSHIPMENT AND IN-TRANSIT MOVEMENT OF RADIOACTIVE ISOTOPES NOT EXCEEDING SCHEDULED QUANTITIES

Importer

Atomic Energy Control Board

Customs

1. Complete licence application form AECEB 69/76 noting General Permit R1-1001 in lower-right corner, Licence Number block (forms available from AECEB or Customs).

N/A

2. Note cargo control number on form AECEB 69/76.

3. Present form AECEB 69/76 with appropriate documents to Customs at time of release.

4. Verify:

(a) goods imported, transshipped or in transit are as described on form AECEB 69/76;

(b) quantity does not exceed scheduled quantity (see Appendix A); and

(c) cross-reference of cargo control number.

5. Endorse form AECEB 69/76 with:

(a) transaction number (where applicable); and

(b) signature and Customs Office date-stamp.

6. Endorse cargo control document and Customs Office copy of accounting/release document (where applicable) with notation that goods are imported, transshipped or in transit under the authority of General Permit R1-1001.

7. Release goods.

8. Immediately forward validated form AECEB 69/76 to the Radioisotope and Transportation Division, Atomic Energy Control Board.

APPENDIX C

SINGLE SHIPMENT AUTHORITY

Importer

Atomic Energy Control Board

Customs

1. Apply for licence.
2. Issue licence (forms AECEB 69/76, and AECEB 53 Rev. 1979, by facsimile).
3. Licence valid for one importation, transshipment or in-transit movement only, in period specified in licence.
4. Note licence number on cargo control and accounting document (where applicable), and cargo control number on licence (original and photocopy).
5. Present photocopy of licence with appropriate documents to Customs at time of release (original of licence to be retained by importer).
6. Verify:
 - (a) goods imported, transshipped or in transit are as described on licence;
 - (b) quantity does not exceed allocated quantity;
 - (c) effective and expiry dates of licence;
 - (d) licence authorization; and
 - (e) cross-reference of cargo control and licence numbers.
7. Endorse licence with:
 - (a) transaction number (where applicable); and
 - (b) signature and Customs Office date-stamp.
8. Endorse cargo control document and Customs Office copy of accounting/release document (where applicable) with licence number.
9. Release goods.
10. Immediately forward validated copy of licence to the Radioisotope and Transportation Division, Atomic Energy Control Board.

APPENDIX D

MULTIPLE SHIPMENT AUTHORITY

Importer

Atomic Energy Control Board

Customs

1. Apply for licence.

2. Issue licence (forms AECEB 69/76, and AECEB 53 Rev. 1979, by facsimile).

3. Licence valid for an unlimited number of importations, transshipments or in-transit movements in period specified on licence.

4. Note:

(a) licence number on cargo control and accounting document (where applicable);

(b) cargo control number on licence (original and photocopy); and

(c) details of current shipment on photocopy of licence.

5. Present photocopy of licence with appropriate documents to Customs at time of release (original of licence to be retained by importer).

6. Verify:

(a) goods imported, transshipped or in transit are as described on licence;

(b) quantity does not exceed allocated quantity;

(c) effective and expiry dates of licence;

(d) licence authorization; and

(e) cross-reference of cargo control and licence numbers.

7. Endorse licence with:

(a) transaction number (where applicable); and

(b) signature and Customs Office date-stamp.

8. Endorse cargo control document and Customs Office copy of accounting/release document (where applicable) with licence number.

9. Release goods.

10. Immediately forward validated copy of licence to the

Radioisotope and Transportation Division, Atomic Energy Control Board.

APPENDIX E

APPENDIX F

Radiation Packaging Labels

For transport and storage purposes, radiation packaging labels indicate the following:

1. Item A, the trefoil symbol, item B, the printed term RADIOACTIVE and item G, the number 7 all indicate that the package is radioactive.

2. Item C represents the categories of radiation level. The three categories are indicated by the red roman numerals I, II or III.

(a) Category I means that the radiation level at any location on the external surface of the package any time during normal transport does not exceed 0.5 millirem (mrem) per hour or 5 microsieverts (Sv) per hour.

(b) Category I labels have the trefoil symbol on a white background.

(c) Category II means that the radiation level at any location on the external surface of the package any time during normal transport does not exceed 50 millirems (mrem) per hour or 500 microsieverts (Sv) per hour.

(d) Category III means that the radiation level at any location on the external surface of the package any time during normal transport does not exceed 200 millirems (mrem) per hour or 2 millisieverts (mSv) per hour.

(e) Category II and III labels have the trefoil symbol on a yellow background.

3. Item D indicates the name and atomic number of the isotope or its equivalent symbol as found in Schedule I of Appendix A to this Memorandum.

4. Item E indicates the amount of radioactive material measured in becquerels (Bq) or curies (Ci).

5. Item F is a number called the Transport Index (TI) used by consignors and carriers to control the quantity of packages that can be transported together in a consignment.

Inspection and Control Division

Atomic Energy Control Act
Atomic Energy Control Regulations
Export and Import Permits Act
C.R.C., c. 365, as amended

7614-2

D19-2-1, August 17, 1984

D19-10-3