



Schedule II
Licence Application Form
Application for the use of radioisotopes in Diagnostic and Therapeutic Medical Procedures,
Industry, Research and Education

LICENCE APPLICATION FORM

| | | | |
|--|--|--|-------------------|
| 1. Type of Application | | <input type="checkbox"/> New Licence | |
| | | <input type="checkbox"/> Renewal | |
| | | <input type="checkbox"/> Amendment | Current Licence # |
| 2. Applicant Information | | | |
| Applicant: | | | |
| Head Office Address: | | | |
| Mailing Address (if different from above): | | | |
| 3. Contact Person for the Billing of Cost Recovery Fees | | | |
| Name: | | Title: | |
| Telephone: | | E-Mail: | |
| Facsimile: | | | |
| 4. Purpose of the Licence | | | |
| Indicate only one purpose. | | (A separate application is needed for each.) | |
| <input type="checkbox"/> diagnostic nuclear medicine <input type="checkbox"/> therapeutic nuclear medicine <input type="checkbox"/> human research studies <input type="checkbox"/> industrial <input type="checkbox"/> general research studies <input type="checkbox"/> education | | | |
| 5. Licensed Activities | | | |
| Check as many activities as you intend to conduct in association with your selected use type | | | |
| <input type="checkbox"/> Possess <input type="checkbox"/> Use <input type="checkbox"/> Package <input type="checkbox"/> Store <input type="checkbox"/> Transport <input type="checkbox"/> Transfer <input type="checkbox"/> Import <input type="checkbox"/> Export <input type="checkbox"/> Service <input type="checkbox"/> Other: | | | |

6. Principal Location for the Use and/or Storage of Nuclear Substances

Building: _____ Room # _____

Building Address: _____

used at stored at both

7. Other Locations for the Use and/or Storage of Nuclear Substances

Building: _____ Room # _____

Building Address: _____

used at stored at both: **More locations appended as:**

8. Licensed Nuclear Substances

| Radionuclide | Requested maximum quantity in possession | Estimated total quantity to be acquired per year | Maximum average concentration in waste for Disposal |
|---------------|--|--|---|
| Americium 241 | | | 85.1 Bq/g |
| Americium 243 | | | 62.9 Bq/g |
| Antimony 124 | | | 29.2 Bq/g |
| Antimony 125 | | | 196.1 Bq/g |
| Barium 133 | | | 148 Bq/g |
| Beryllium 7 | | | 140.6 Bq/g |
| Bismuth 207 | | | 14.8 Bq/g |
| Cadmium 109 | | | 1.7 kBq/g |
| Calcium 45 | | | 1.48 kBq/g |
| Carbon 14 | | | 7.4 kBq/g |
| Cerium 139 | | | 74 Bq/g |
| Cerium 141 | | | 148 Bq/g |
| Cerium 144 | | | 148 Bq/g |
| Cesium 134 | | | 44.4 Bq/g |
| Cesium 135 | | | 18.5 Bq/g |
| Cesium 137 | | | 20.72 Bq/g |
| Chromium 51 | | | 2.52 kBq/g |
| Cobalt 56 | | | 13.3 Bq/g |
| Cobalt 57 | | | 703 Bq/g |

| | |
|------------------------|---------------|
| Cobalt 58 | 59.2 Bq/g |
| Cobalt 60 | 13.3 Bq/g |
| Copper 67 | 74 Bq/g |
| Curium 242 | 37 Bq/g |
| Curium 243 | 55.5 Bq/g |
| Curium 244 | 37 Bq/g |
| Europium 152 | 62.9 Bq/g |
| Europium 154 | 51.8 Bq/g |
| Europium 155 | 62.9 Bq/g |
| Gadolinium 153 | 111 Bq/g |
| Germanium 68 | 148 Bq/g |
| Gold 195 | 74 Bq/g |
| Hafnium 181 | 37 Bq/g |
| Hydrogen 3 | 7.4 kBq/g |
| Iodine 125 | 55.5 Bq/g |
| Iodine 129 | 11.47 Bq/g |
| Iodine 131 | |
| Iridium 192 | 92.5 Bq/g |
| Iron 55 | 740 Bq/g |
| Iron 59 | 14.8 Bq/g |
| Lead 210 | 740 Bq/g |
| Manganese 54 | 207.2 Bq/g |
| Mercury 203 | 370 Bq/g |
| Neptunium 237 | 74 Bq/g ** |
| Nickel 59 | 25.9 Bq/g |
| Nickel 63 | 370 Bq/g |
| Niobium 94 | 5.92 Bq/g |
| Plutonium 238 | 37 Bq/g |
| Plutonium 239 | 37 Bq/g |
| Plutonium 240 | 37 Bq/g |
| Plutonium 241 | 129.5Bq/g |
| Plutonium 242 | 37 Bq/g |
| Polonium 210 | 740 Bq/g |
| Potassium 40 | 37 Bq/g |
| Promethium 147 | 148 Bq/g* |
| Radium 226 | 74 Bq/g* |
| Radium 228 | 66.6 Bq/g |
| Radium 228 (1 year) | 44.4 Bq/g *** |

| | | | |
|--------------------------|--|--|----------------|
| Radium 228 (5 years) | | | 24.79 Bq/g *** |
| Radium 228 (10 years) | | | 20.72 Bq/g *** |
| Rubidium 83 | | | 37 Bq/g |
| Ruthenium 106 | | | 703 Bq/g |
| Samarium 151 | | | 37 Bq/g |
| Scandium 46 | | | 14.8 Bq/g |
| Selenium 75 | | | 37 Bq/g |
| Silver 108m | | | 18.5 Bq/g |
| Silver 110m | | | 20.72 Bq/g |
| Sodium 22 | | | 28.86 Bq/g |
| Strontium 85 | | | 18.5 Bq/g |
| Strontium 89 | | | 74 Bq/g |
| Strontium 90 | | | 740 Bq/g |
| Sulphur 35 | | | 148 Bq/g |
| Tantalum 182 | | | 18.5 Bq/g |
| Technetium 99 | | | 370 Bq/g |
| Thallium 204 | | | 37 Bq/g |
| Thorium 230 | | | 555 Bq/g |
| Thorium 232 | | | 25.16 Bq/g |
| Tin 113 | | | 370 Bq/g |
| Uranium 234 | | | 1.369 kBq/g |
| Uranium 235 | | | 28.49 Bq/g |
| Uranium 236 | | | 1.332 kBq/g |
| Uranium 238 | | | 1.036 kBq/g ** |
| Uranium (natural) | | | 666 Bq/g ** |
| Uranium (depleted) | | | 4.07 kBq/g ** |
| Yttrium 88 | | | 11.1 Bq/g |
| Yttrium 91 | | | 74 Bq/g |
| Zinc 65 | | | 407 Bq/g |
| Zirconium 95 | | | 18.5 Bq/g |

All radioisotopes may be in any physical or chemical form. The applicant must refer to Schedule III for waste disposal guidelines.

* Decay products are assumed to be present in concentrations equal to parent.

** Short lived decay product of U-239 (Th-234 and Pa-234) and of Np-237 (Pa-233) are assumed to be present in concentrations equal to the parent.

*** Ra-228 with its decay products present at the times indicated after separation as pure Ra-228.

9. Sealed Nuclear Substances

| Radionuclide | Requested maximum quantity contained in any single source | Estimated number of sealed sources greater than 50 MBq |
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