1. Sources of radioactive prescribed substances used for radiography purposes shall be of a type approved by the Board.

2. Such sources shall not be opened, altered or combined by persons engaged in industrial radiography operations.

3. Unshielded sources shall not be handled except by long handled tongs or other remote handling equipment approved by the Board.

4. Sources shall not be introduced into or removed from radiography devices by persons engaged in industrial radiography operations except by procedures approved by the Board.

5. Sources shall not be changed in locations not under the jurisdiction of the user.

6. When required by the Board, leakage tests of sources shall be performed at least every six months by persons specifically authorized to do so and permanent records of all such tests shall be maintained.

(2) RADIOGRAPHY DEVICES AND STORAGE CONTAINERS

1. Sources of radioactive prescribed substances shall not be used in any radiography device, camera, or storage and shipping container until the design of that device, camera or container has been approved by the Board after testing and rating by the Department of National Health and Welfare or other testing organization approved by the Board.

2. No source of radioactive prescribed substance of activity in excess of the rated activity and no substance other than that for which a radiography device, camera or container has been rated shall be used in that device, camera or container without specific authorization from the Board.

3. Every radiography device, camera or storage container shall be provided with a lock or lockable outer container.

4. Every radiography device, camera or container in shall be maintained in good order.
(3) MARKING AND LABELLING

1. Each source of radioactive prescribed substance used for industrial radiography operations shall have permanently attached to it a metal tag with permanent markings showing:

   (a) an approved radiation warning symbol
   (b) words such as "CAUTION - RADIOACTIVE MATERIAL"
   (c) an indication of the nature and quantity of the radioactive substance contained therein.

2. Each radiography device, camera or container shall be permanently marked with nameplate(s) showing:

   (a) the owner's and, if desired, the maker's name
   (b) the model number and serial number of the device or camera
   (c) the maximum activity of the radioactive prescribed substance for which the camera, device or container is rated
   (d) an approved radiation warning symbol
   (e) words such as "CAUTION - RADIOACTIVE MATERIAL"

(4) QUALIFICATIONS OF RADIOGRAPHERS

1. No person shall use radioactive prescribed substances for industrial radiography purposes without supervision until he has received training in

   (a) the fundamentals of radiation protection
   (b) the operation of the radiography devices and other radiography equipment provided
   (c) the use of the protective equipment available
   (d) the provisions of the Atomic Energy Control Regulations, and
   (e) the procedure to be followed in the event of an accident.

2. An atomic energy worker may be refused permission by the Board to carry out industrial radiography operations if an inspection officer reports that such worker has not
demonstrated a satisfactory understanding of and competence in the subjects mentioned above.

(5) MEDICAL REQUIREMENTS

Every employer of industrial radiographers using radioactive prescribed substances shall arrange for each radiographer employed by him to be given medical examinations of such nature and at such intervals as the Board may require.

(6) MONITORING AND PROTECTIVE EQUIPMENT

1. Every person using radioactive prescribed substances for radiography purposes shall use monitoring films and other radiation measuring devices as required by the Board.

2. A survey meter in good working order and of a type approved by the Board shall be available and used at every site where industrial radiography operations are being carried out.

3. Protective equipment as required by the Board shall be available and used at each site where industrial radiography operations are being carried out.

(7) GENERAL OPERATING INSTRUCTIONS

1. Radiation surveys shall be carried out at each radiography site and distinctive warning signs displayed and barriers erected, if necessary, to prevent non-atomic energy workers from receiving a dose of more than 10 millirem of ionizing radiation in the course of one week.

2. After each operation, a radiation survey shall be carried out to check that the source of radioactive prescribed substance has been returned to its proper shielded position in the radiography device.

3. Each radiography device containing a source of radioactive prescribed substance shall be kept locked when not being used by an atomic energy worker qualified to operate such a device.

4. Radiography devices containing radioactive prescribed substances shall be stored in a locked, unoccupied, fire-resistant enclosure, at the outside of which the dose which a person in normally accessible places might receive shall be less than 0.0025 rem in one hour.
(8) **SPECIAL INSTRUCTIONS**

Every atomic energy worker engaged in industrial radiography operations shall comply with any special instructions given by an inspection officer to ensure that the terms of the Atomic Energy Control Regulations are complied with and observed.

(9) **NOTIFICATION TO AUTHORITIES**

1. Every person dealing in radioactive prescribed substances for industrial radiography purposes shall notify the fire department of a municipality whenever he brings or sends into that municipality a radiography device or camera containing a radioactive prescribed substance for use or for storage for a period greater than 24 hours.

2. Any person dealing in radioactive prescribed substances for industrial radiography purposes who is authorized to engage in field radiography operations in a province or provinces shall, before commencing operations at a particular field location, notify the Radiation Protection Division, Department of National Health & Welfare, Ottawa, and the Department of Health of the province concerned, of

   (i) the address of the location

   (ii) the number of radiography devices to be used there

   (iii) the name of the person in charge of operations at this location.

3. Any person dealing in radioactive prescribed substances for radiography purposes shall, in the event of:

   (a) any loss or theft of a radiography source,

   (b) discovery of a leaking or damaged source,

   (c) any accident leading to the exposure or suspected exposure of any person to ionizing radiation in excess of 5 rem,

report such loss, theft, leakage or accident within twenty-four hours to the Radiation Protection Division, Department of National Health & Welfare, the Department of Health of the province concerned, and the appropriate inspection officer, and shall as soon as possible send a complete report thereon to the Board.
Every person dealing in radioactive prescribed substances for radiography purposes shall maintain, in addition to the records required under Section 606 of the Regulations, records showing the following information:

(a) the age, make, model and serial number of the radiography devices. The nature, activity and the date of procurement of the prescribed substance contained in each radiographic device;

(b) the names of the atomic energy workers to whom these devices have been assigned;

(c) schedules of the dates and locations of use of these devices;

and shall make such records available at all reasonable times to an inspection officer.