**Section 350.APPENDIX B General Requirements for Inspection of Industrial Radiographic Equipment**

a) Panoramic devices (devices in which the sealed source is physically removed from the shielded container during exposure) shall be inspected for:

1) Radiographic Exposure Unit

A) Abnormal surface radiation levels anywhere on camera, collimator or guide tube;

B) Condition of safety plugs;

C) Proper operation of locking mechanism;

D) Condition of pigtail connector;

E) Condition of carrying device (e.g., straps, handle, etc.); and

F) Proper labeling.

2) Source Guide Tube

A) Rust, dirt or sludge buildup inside the source tube;

B) Condition of source tube connector;

C) Condition of source stop;

D) Kinks or damage that could prevent proper operation; and

E) Presence of radioactive contamination.

3) Control Cables and Drive Mechanism

A) Proper drive mechanism with camera, as appropriate;

B) Changes in general operating characteristics;

C) Conditions of connector on drive cable;

D) Drive cable flexibility, wear and rust;

E) Excessive wear or damage to crank assembly parts;

F) Damage to drive cable conduit that could prevent the cable from moving freely;

G) Connection of the control cable connector with the pigtail connector for proper mating;

H) Proper operation of source position indicator, if applicable; and

I) Presence of radioactive contamination.

b) Directional beam devices containing radioactive material shall be inspected for:

1) Abnormal surface radiation;

2) Changes in the general operating characteristics of the device;

3) Proper operation of shutter mechanism;

4) Chafing or binding of shutter mechanism;

5) Damage to the device which might impair its operation;

6) Proper operation of locking mechanism;

7) Proper drive mechanism with camera, as appropriate;

8) Condition of carrying device (e.g., strap, handle, etc.); and

9) Proper labeling.

c) X-ray equipment shall be inspected for:

1) Change in the general operating characteristics of the device;

2) Wear of electrical cables and connectors;

3) Proper labeling of console;

4) Proper console with machine, as appropriate;

5) Proper operation of locking mechanism;

6) Timer run-down cutoff;

7) Damage to tube head housing that might result in excessive radiation levels; and

8) Positive indication of x-ray production.

Source: Added at 18 Ill. Reg. 7263, effective May 2, 1994)