**ANODE HEEL EFFECT**

**Group Laboratory Experiment #12**

**Procedure:**

Open the collimator to a beam coverage of 4 inches wide and 17 inches long. Place a 14 x 17-inch 400-speed screen cassette lengthwise on the tabletop and center the central ray to its middle. Use the technique below and a marker to identify the left side of beam.

Technique - 2.0 mAs at 40 kVp

Alternate Technique = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Analysis:**

1. Place the film on an illuminator. Is there a visible difference in the radiographic density from one end of the exposed strip to the other?

2. Using a densitometer, measure and record the density located *1 inch* from the edge of the beam at both ends of the exposed strip.

3. Locate the position of your tube cathode and anode on the equipment used for this experiment and record it below.

Left side of the tube: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Right side of the tube:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Is the intensity of the beam less toward the cathode or anode of the tube?

5. Would a smaller FS increase, decrease, or not affect the anode heel effect?

6. Would a steeper target angle increase or decrease the heel effect?

7. In body structures of equal thickness and density throughout their lengths, can the anode heel effect be used to advantage?

8. For a body part that is 5 inches long, can the anode heel effect be used to significant advantage?

9. What positioning rule can you make from this exercise in regard to the anode heel?