Training

- All x-ray equipment operators and area frequenters must complete the appropriate training. See https://ehs.yale.edu/x-rays for more information.

Dosimetry

- Wear your badge whenever using x-ray equipment.
- Store badge away from radiation when not being used.
- Never share badges or intentionally expose badges to radiation.
- Return badges in a timely manner at the end of the wear period.

Security

- Turn off equipment when not in use.
- Always secure keys when x-ray unit is not in use.
- Do not post passwords nearby x-ray control computers and do not leave any keys with equipment.
- Only trained and authorized users should have access to the unit keys.

XRD and XRF Setup

- DO NOT attempt to handle, manipulate or adjust any object (sample, sample holder, collimator, etc.) which is in the direct beam path while the beam is on.
- Never place your hands or other body parts in the x-ray beam.
- For computer controlled runs, check and ensure that the runs are complete before making any adjustments.

Unit Malfunction

- If the x-ray unit appears to malfunction, remove it from service immediately and post a sign to indicate status.
- Contact your supervisor and the service representative as soon as possible.
- Make certain other users are aware that the unit is out of service and notify Radiation Safety at the EHS main line 203-785-3550.

New Use or Termination of Use

- Contact EHS prior to purchase, relocation, transfer, donation or disposal of an x-ray unit to ensure all work is handled correctly and in accordance with Connecticut Department of Energy and Environmental Protection regulations. Ionel Hau is the EHS contact for X-ray Safety matters - Ionel.Hau@Yale.edu

Emergency Procedures

- If there is a suspicion of an x-ray exposure or for any other x-ray related emergency, call the EHS emergency line at 203-785-3555.

Questions or concerns? Contact Radiation Safety at 203-785-3550.
Traits of a Positive Safety Culture

Experience has shown that certain personal and organizational traits are present in a positive safety culture. A trait, in this case, is a pattern of thinking, feeling and behaving that emphasizes safety, particularly in goal conflict situations (e.g., production, schedule and the cost of the effort versus safety).

The following are traits of a positive safety culture:

1. **Leadership Safety Values and Actions**
   Leaders demonstrate a commitment to safety in their decisions and behaviors.

2. **Problem Identification and Resolution**
   Issues potentially impacting safety are promptly identified, fully evaluated and promptly addressed and corrected commensurate with their significance.

3. **Personal Accountability**
   All individuals take personal responsibility for safety.

4. **Work Processes**
   The process of planning and controlling work activities is implemented so that safety is maintained.

5. **Continuous Learning**
   Opportunities to learn about ways to ensure safety are sought and implemented.

6. **Environment for Raising Concerns**
   A safety conscious work environment is maintained where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination.

7. **Effective Safety Communication**
   Communications maintain a focus on safety.

8. **Respectful Work Environment**
   Trust and respect permeate the organization.

9. **Questioning Attitude**
   Individuals avoid complacency and continuously challenge existing conditions and activities in order to identify discrepancies that might result in error or inappropriate action.

*Source: United States Nuclear Regulatory Commission.*