Radiation Safety Matters: PET Center-2017



Lab Attire and PPE

- Avoid wearing clothing that leaves the skin exposed (e.g. shorts, skirts, sandals, etc.).
- Wear double gloves, a lab coat and safety glasses when handling radioactive materials.
- Keep a pair of lab shoes for use in the lab.



Surveys

- Personal and work area surveys must be performed before, during and after each use of radioactive material.
- Perform personal surveys prior to leaving the lab for the day.



Documentation

- Daily area and personal surveys for each day of use.
- Radioactive materials package receipt surveys.
- Decay in Storage (DIS) and release surveys for radioactive waste containing PET radioisotopes with very short half-lives (less than two hours).
- Dose calibrator tests.



Training

- EHS offers various radiation safety courses to the PET Center available at http://ehs.yale.edu/pet-center. Ensure your training compliance is up to date by checking at http://www.yale.edu/training/.
- Well-trained lab members conduct good research. In addition to EHS safety trainings, each user should receive lab specific radiation safety training on experimental protocols and radiation safety procedures.



Security

- Secure your radioactive materials from unauthorized use. The PET Center is card key access by trained and authorized personnel and visitors. Report missing radioactive material/sources to EHS at 203-785-3555.
- Pay attention to unknown persons in the PET Center. Report suspicious behavior to your supervisor.



Dosimetry

- Wear your assigned badge when working with radioactive materials or sources and never share badges.
- Exchange badges in a timely manner at the end of a wear period.
- Ensure that visitors to the PET Center wear spare dosimeters, electronic or pocket dosimeters and fill out a visitor's log documenting their readings.



Shielding

- Ensure that you have the proper shielding in place to protect yourself while working with radioactivity.
- Shielding needs vary based on the isotope used and the activity being handled. For questions regarding proper shielding, contact EHS.



Radioactive Waste

- Schedule regular pickups to avoid accumulating radioactive waste for longer lived PET radioisotopes and activation products (half-lives greater than two hours).
- Request a radioactive waste pick up online at https://ehsis.yale.edu/EHSIntegrator.
- Perform Decay in Storage (DIS) and release surveys for PET radioisotopes very short half-lives (less than two hours).

Safety culture is important. Please see reverse side for the U.S. NRC's Safety Culture Policy Statement.



SAFETY CULTURE

Policy Statement

PURPOSE AND APPLICABILITY

This Statement of Policy (SOP) sets forth the Commission's expectation that individuals and organizations establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions.

This SOP applies to all licensees, certificate holders, permit holders, authorization holders, holders of quality assurance program approvals, vendors and suppliers of safety-related components, and applicants for a license, certificate, permit, authorization, or quality assurance program approval, subject to the authority of the U.S. Nuclear Regulatory Commission (NRC).

NUCLEAR SAFETY CULTURE DEFINED

Nuclear safety culture is defined as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment. Individuals and organizations performing regulated activities bear the primary responsibility for the safe and secure use of nuclear materials.

CONSIDERATION OF BOTH SAFETY AND SECURITY

Organizations should ensure that personnel in the safety and security sectors appreciate the importance of each, emphasizing the need for integration and balance to achieve both safety and security in their activities. It is important that consideration of these activities be integrated so as not to diminish or adversely affect either, and that mechanisms be established to promptly identify and effectively resolve these differences.





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.

There may be traits not included in this SOP that are also important in a positive safety culture. It should be noted that these traits were not developed to be used for inspection purposes.

THE COMMISSION'S EXPECTATION

The Commission expects that all individuals and organizations performing or overseeing regulated activities involving nuclear materials should take the necessary steps to promote a positive safety culture by fostering these traits as they apply to their organizational environments.

ADDITIONAL INFORMATION

If you have questions, comments, or suggestions regarding safety culture, the Policy Statement, this document, or other aspects of the NRC's safety culture outreach activities, please contact us at: External_Safety_Culture.Resource@nrc.gov. For more information on safety culture, please go to: www.nrc.gov/about-nrc/regulatory/enforcement/ safety-culture.html.

This document was adapted from, the NRC's Final Safety Culture Policy Statement, published in the Federal Register on June 14, 2011 (76 FR 34773).







www.nrc.gov/about-nrc/regulatory/ enforcement/safety-culture.html