

SUBJECT: RADIATION SAFETY	REFERENCE #1203
DEPARTMENT: BIOMEDICAL ENGINEERING IMAGING/RADIOLOGY	PAGE: 1 OF: 3
APPROVED BY:	EFFECTIVE:
	REVISED:

**POLICY:**

All equipment capable of producing x-radiation will be operated in a manner which will present the least possible radiation hazard to the operator and any staff in the immediate area. Unless there is a diagnostic test that must be conducted, there will not be any x-ray exposures in or about patient or visitor areas.

**PROCEDURE:**

- Staff Protection:
  - Any staff, who are liable to be exposed to one-quarter (1/4) radiation worker dosage, will be monitored via a radiation film badge system.
  - When a lead apron is worn, the film badge will be worn on the collar outside the apron. Otherwise, the film badge shall be worn on the trunk of the body.
  - All staff required to remain in an area where x-ray exposure is taking place, must at all times wear protective lead aprons and utilize all other physical means including time and distance in order to minimize exposure. All nonessential staff shall clear the area while x-ray exposures are being taken.
  - Under no circumstance will x-ray exposures be made within a permanent installation without closing all doors.
  
- Portable X-ray Machines:
  - The operator shall wear a lead apron and shall check that no one is in the direct or useful beam.
  - The operator shall collimate the beam to include only the area of interest.
  - The operator shall make the radiographic exposure at the maximum distance from the x-ray source by utilizing the full length of the exposure switch cord.
  - If a piece of test equipment or object of interest will not stay by itself, it will be taped or held by some other means than by the operator or other staff.
  - Staff shall be notified before an exposure is to be taken so that they can exit the area or seek protection from the beam with a protective apron. It is the responsibility of the operator to assure that this procedure is followed.

SUBJECT: LOCKOUT/TAGOUT TRAINING	REFERENCE #1409
DEPARTMENT: HOSPITALWIDE	PAGE: 1 OF: 4
APPROVED BY:	EFFECTIVE: REVISED:

**LOCKOUT TRAINING OUTLINE:**

- Definition:
  - Energy runs machines and moves their parts. That energy can be electrical, mechanical, hydraulic or pneumatic. Sometimes the energy is stored, as in springs, steam, or as pressurized air or liquids. Any type of energy, however, can be a serious safety hazard, especially if it comes on or is released unexpectedly while servicing or maintaining equipment. That is why OSHA has developed lockout/tagout procedures to help make sure that anyone working on equipment isn't electrocuted, hit, cut, crushed or otherwise injured during machinery service or repair. If there are any questions regarding the following procedures or safety questions, ask your supervisor.
  
- Key steps to proper lockout:
  - SHUT OFF and lockout electricity.
  - RELEASE and lockout energy.
  - DRAIN and lockout material.
    - After all the energy has been shut off and drained, lockout is the safest method of keeping you from getting hurt. The law requires you to lockout machine power whenever possible. Only when you can't lockout, do you tagout using a warning tag.
    - Lockout means putting a lock on the part of the machine that controls the energy, i.e., a circuit breaker, switch, block, valve. This locks the energy control device in an "off" position and prevents the machine from starting up or releasing energy accidentally. A lockout lock can have a key or a combination. It cannot be a lock that's used for any other purpose than lockout.
  
- Lockout locks must be:
  - Durable enough for the heat, cold, humidity or corrosiveness in the area where it's used, for as long as it is needed.
  - Standardized by color, shape or size throughout the facility.
  - Strong enough so it cannot be removed without heavy force or tools like bolt cutters.
  - Identified by the name of the employee who installs and removes it.

SUBJECT: CONFINED SPACE ENTRY	REFERENCE #1605
DEPARTMENT: ENGINEERING	PAGE: 1
	OF: 4
APPROVED BY:	EFFECTIVE:
	REVISED:

**DEFINITIONS:**

- Confined space is defined by OSHA as:
  - Being large enough and so configured that an employee can bodily enter and perform assigned work, *and*
  - Has limited or restricted means of entry or exit, *and*
  - Is not designed for continuous employee occupancy
- “Permit Required Confined Space” (permit space) is a confined space that has one or more of the following characteristics:
  - Contains or has the potential to contain a hazardous atmosphere
  - Contains a material that has the potential for engulfing an entrant
  - Has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section, *or*
  - Contains any other serious safety or health hazard

**POLICY:**

- A worksite evaluation shall be conducted to determine if there are any permits required confined spaces in this hospital. Identified permit required confined spaces include, boilers, sterilizers ventilation systems and underground storage tanks. All permit required spaces will be posted with danger signs to alert employees to the existence, location and danger involved (i.e., "DANGER, PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER").
- Authorized entrants, attendants and entry supervisors will receive appropriate training to assure knowledge of duties and responsibilities during entry to confined spaces before assigned such duties. The training shall establish employee proficiency in the duties required. Training logs shall be maintained in the Engineering Office. Confined space supervisor will be familiar with all aspects of OSHA (29 CFR 1910.146).

SUBJECT: N95 FIT-TESTING	REFERENCE #1702
DEPARTMENT: HOSPITALWIDE	PAGE: 1 OF: 4
APPROVED BY:	EFFECTIVE: REVISED:

**POLICY:**

- All staff members in contact with patients will be fit-tested for the N95 dust mist respirator. This shall be done on initial hire and annually thereafter.
- OSHA has issued a final rule on respiratory protection healthcare workers (HCWs). The revised standard has added a new fit-testing protocol. The new protocol, known as Controlled Negative Pressure (CNP) REDON requires three (3) different test exercises followed by two (2) redonnings of the respirator. The three (3) test exercises, in order of administration, are normal breathing, bending over and head shaking.

**RESPONSIBLE PERSON:**

Infection Control Practitioner, designee and/or staff members

**GOAL:**

To reduce the risks of transmission of Mycobacterium Tuberculosis (TB) among and between patients and healthcare workers (HCWs).

**PROCEDURE:**

- Preparation:
  - Attach hood to collar by placing drawstring between flanges on collar. Tighten drawstring and tie.
  - Pour a small amount (approximately one [1] teaspoon) of the Sensitivity Test Solution (#1) into the nebulizer labeled “#1 Sensitivity Test Solution”.
  - Pour the same amount of Fit-Test Solution (#2) into the second nebulizer labeled “Fit-Test Solution #2”
- Sensitivity Test:
  - This test is done to assure the person being fit-tested can detect the sweet taste of the test solution at very low levels. The Sensitivity Test Solution is a very dilute version of the Fit-Test Solution. Subject should not eat, drink or chew gum for 15 minutes before the test.

# OSHA SAFETY CHECKLIST

Inspectors: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Area Surveyed: \_\_\_\_\_

Received by Committee: \_\_\_\_\_ Sent to Department: \_\_\_\_\_ Action Copy Returned: \_\_\_\_\_

Work Practices	Y	N	N/A	Comments
1. Does the area appear to be safe and secure?				
2. Do employees know where the safety manual is located?				
3. Are emergency phone numbers posted so they can be easily found?				
4. Are the floors clean and neat?				
5. Do managers know what equipment is in the equipment management program?				
6. Are compressed gas cylinders labeled?				
7. Are cylinders adequately stored and secured?				
8. Are gauges in good working condition?				
9. Are hose/connectors in good condition?				
10. Are chairs in good condition?				
11. Do employees appear to be working ergonomically safe?				
12. Are employees trained in proper lifting practices?				
13. Are exit doors unobstructed?				
14. Is there greater than or equal to 22-inch clearance in aisles and walkways?				
15. Are evacuation maps located next to fire pulls?				
16. Are exit signs functioning?				
17. Are fire extinguishers routinely inspected to determine if they are operative and stored properly?				
18. When extinguishers are removed for recharge are they replaced by a spare?				
19. Are fire extinguishers/pulls unobstructed?				
20. Are heat sources free of combustibles?				
21. Are proper door openers being used? (no wedges)				
22. Are there at least 18-inch clearance around sprinkler heads?				