



## INFECTIOUS OR REGULATED MEDICAL WASTE

Each MR facility must abide by federal, state and local regulations regarding the collection and disposal of infectious waste or regulated medical waste (RMW).

RMW must be collected, transported, stored, packed, labeled, treated and disposed in a manner that minimizes exposure to team members, patients, the public and the environment to disease-causing agents.

## **DEVICE AND OBJECT SCREENING**

Whenever practical, ferrous objects, including those brought by patients, visitors, engineers, etc., should be restricted from entering Zone III and prohibited in Zone IV. Each facility should have ready access to a strong handheld magnet  $\geq$  1000 Gauss (Figure 7) and/or a handheld ferromagnetic detection device (Figure 8). This will afford the technologists the means to test external and even some superficial internal devices or implants for the presence of grossly ferromagnetic attractive forces.



## Hand-Held Magnets **≠** Ferromagnetic Detectors

At many MR facilities, high strength handheld magnets (like the one shown in Figure 7) are used to test objects for their magnetic field hazards. However, these magnets are **not** comparable to ferromagnetic detectors. While they can help MR personnel differentiate ferrous from non-ferrous objects, their extraordinary strength introduces concerns that limit their use:

- 1. The handheld magnetic must NEVER be taken into Zone IV as the interaction between it and the MR scanner could result in serious injury or death to anyone in the vicinity.
- 2. Their magnetic field drops off sharply hence they are useful for distinguishing ferromagnetic materials only at or near the surface of an object. Ferromagnetic components below the surface may go undetected.
- 3. Because shallow ferromagnetic material within the body of a patient could be moved by these very strong handheld magnets, they are *poorly* suited for patient screening.
- 4. The strong magnetic field could adversely affect the proper operation of cardiac or other pacemakers and other electrically or magnetically or mechanically activated devices on or in patients. Accordingly, the magnet should not be brought into the vicinity of patients with cardiac or other pacemakers, automated external defibrillators (AEDs), hearing aids, cochlear implants, or other externally or internally affixed or implanted magnetically or mechanically activated devices.
- 5. Some medical equipment designed for use in Zone IV may have maximum allowable static and dynamic magnetic field values. The hand-held magnet should not be used to test or brought into the vicinity of the equipment as it could impair the device.
- 6. The handheld magnet should be kept away from all magnetic media such as computers, computer monitors, hard disks, portable magnetic media (including floppy disks and zip disks), and magnetic stripes on credit cards, bank cards, and some airline tickets.