likelihood of an accidental radioactive material release. Hardened trailers are similar in design to SSTs but have fewer security features than SSTs, which are designed for offsite transport. Table 4.12.1.1–1 shows the number of nuclear explosive and nuclear explosive component interzone transfers for 1993.

Pits

At the point of removal from a weapon, pits are swipe-tested to ensure that there is no surface radioactive contamination. Pits are then placed in AL–R8 containers and sealed with a tamper-indicating device. A pit within a container presents an external radiological hazard that is weapons system-specific. A typical dose rate is 3 millirem per hour at 1 meter for the AL–R8 container. Within Zone 12, pit transfers related to component testing, weapon assembly, or weapon modifications are accomplished with electric forklifts and special nuclear material (SNM) tie-down pallets.

All pits are expected to be staged using Stage Right techniques and equipment by December 1996. Stage Right techniques and equipment would enable the stacking of pit containers with the container's long axis oriented horizontally within a steel pallet. Figure 4.12.1.1–1 is an artist's rendition of a Stage Right magazine. These staging techniques and equipment have simplified pit transfers and reduced the need for entrance into magazines by personnel and their exposure to radiation. Pits being transferred to Zone 4 West for staging are placed at the disassembly point within a Stage Right pallet (either four or six containers per pallet) and, using an electric forklift, loaded into a pallet trailer, which can carry 24 pit containers. The pallet trailer is driven to Zone 4 West and parked at the storage magazine. In the past, hardened trailers and SSTs have been used to move pits between zones, and they could be used in the future.

Prior to the placement of pit pallets into a magazine, a temporary staging ramp with a pallet turner is installed. This ramp ensures that the Stage Right forklift is properly positioned to place the pit pallets within the storage magazine. Once the ramp installation is complete, a standard forklift removes the pallet from the pallet trailer and places it on the pallet turner with the pit containers in the vertical position (Figure 4.12.1.1–2). The pallet turner is then rotated 90 degrees so that the pit containers are in the horizontal position. A shielded Stage Right forklift (shown in Figure 4.12.1.1–1), or an automated guided vehicle, is then driven onto the staging ramp to the pit turner, where the forklift boom lifts the pallet off the turner. The forklift is then driven between the permanently installed guiderails inside the magazine to the desired location. Pits are retrieved from a storage magazine in a similar manner.

Canned Subassemblies

At the point of removal from a weapon, canned subassemblies (CSAs) which may contain

TABLE 4.12.1.1–1.—*1993 Interzone Transfers Of Nuclear Explosives and Nuclear Explosive Components*

	NUCLEAR EXPLOSIVES	PIT COMPONENTS	CSAs
Zone 4 to Zone 12	2,739	98	59
Zone 12 to Zone 4	492	1,830	283

CSA - Canned Subassembly
Source: PC 1995h:1