

inventory pallet. This pallet is moved inside the magazine by either the shielded Stage Right forklift or an automated guided vehicle. As the pallet is moved, the bar code reader and video camera verify the presence of each pit container within the magazine and the integrity of both the container and the tamper-indicating device. Only the driver using the shielded forklift is required to be in the magazine during the inventory. The use of an automated guided vehicle is currently being implemented. No personnel are required in the magazine with the automated guided vehicle. No pit movement is required for the inventory. All other inventories of magazines not in Stage Right configuration (weapons, weapons components, etc.) are inventoried by hand.

Random pit evaluations are required to meet component reliability requirements. Less than 30 pits (approximately) are selected each year for these evaluation activities. The pallets containing the pits chosen for evaluation are removed from the magazine either manually or using Stage Right techniques and equipment. These pits are transferred to Zone 12 for evaluation activities.

The shielded cab on the Stage Right forklift protects the driver from ionizing radiation while inside storage magazines. Stage Right forklifts are equipped with a special boom that prevents penetration of plutonium containers during

handling operations. This boom is equipped with a limit switch that stops the forklift if the boom accidentally touches a pit container. Stage Right forklifts are operated within guide rails that prevent movement of the forklift outside a clearly defined path. Zone 4 personnel involved in pit movements are required to wear lead aprons.

4.12.1.3 *Radiological Exposures from Onsite Radioactive Material Shipments and Zone 4 West Nuclear Material Staging Activities*

Radiological exposures incurred by workers in the Transportation and Staging Department during the performance of both transportation and staging activities for the years 1993 through 1995 are provided in Table 4.12.1.3–1. Onsite transfers of SNM within buildings and between bays and cells are performed by the production technicians or Production Stores personnel. Exposures related to these activities are considered as part of production operations, not transportation. The doses incurred by workers in the Waste Operations Department are also provided in Table 4.12.1.3–1. These doses were incurred in the performance of all activities involving radioactive waste, not just transportation.

TABLE 4.12.1.3–1.—*Dosimetry Records for Transportation Staging and Waste Operations Department*

YEAR	CUMULATIVE DOSE (PERSON-REM)		NUMBER OF PERSONS MONITORED		MAXIMUM INDIVIDUAL DOSE (MREM)	
	Transportation and Staging Department	Waste Operations Department	Transportation and Staging Department	Waste Operations Department	Transportation and Staging Department	Waste Operations Department
1993	3.338	0.00	45	48	284	0.00
1994	2.150	1 x 10 ⁻²	49	62	200	0.10
1995	3.642	2 x 10 ⁻²	46	56	320	21.00

Source: PC 1995k:1