TABLE 4.14.2.1–1.—*Radiological Exposures to Workers from Normal Weapons Operations*

WEAPONS LEVEL	CUMULATIVE DOSE (10 YEARS OF OPERATIONS) (PERSON-REM)	EXPECTED EXCESS CANCER FATALITIES (10 YEARS OF OPERATIONS)
2,000	330	0.13
1,000	165	0.07
500	82	0.03

of 10 years (i.e., these people receive the entire plant dose), they would receive an average of 0.1 rem per person per year. The maximum dose an individual involved worker is allowed to receive annually is administratively limited to 900 mrem during normal operations. These involved workers include support personnel (e.g., auditors, inspectors) that participate in weapon operations.

Using a normal operations dose-to-risk conversion factor of 4×10^{-4} excess cancer fatalities per person-rem, there would be an additional 0.13 excess cancer fatalities experienced by this group in their lifetime. The probability of fatal cancer from all causes in the general population is estimated at 20 percent (NAP 1990:174), which implies that, on average, 66 of 330 people would develop a fatal cancer from all causes in their lifetime. As the weapon activity level decreases, so would the number of workers. The total person-rem and excess cancer fatalities would also decrease.

Non-involved personnel are not allowed in the vicinity of weapon operations and do not receive doses from weapons operations. The average dose to an individual member of the public or a non-involved worker results primarily from the small amounts of tritium offgassing from Cell 1, the small amounts from the Burning Ground, and the very small amounts that may escape during removal of tritium reservoirs. The total amount of tritium emissions are at the limit of detection. As a result, it is not possible to calculate doses and consequences to the non-involved workers and the public with high confidence levels. To the extent practicable, the dose to the public has been estimated to be less than 1.20×10^{-4} person-rem per year, resulting in 6.00×10^{-8} excess cancer fatalities. Practically speaking, the maximum dose to an individual non-involved worker or member of the public would be effectively zero.

The pit repackaging process is expected to begin operation in late 1996 or early 1997. It is planned that up to 20,000 pits will eventually be repackaged into AT–400A containers. This process will require the transfer of pits between Zone 4 and Zone 12. Impacts related to these transfers are described in section 4.12.

The pit repackaging will occur within existing facilities within Zone 12. Operations occurring as part of the pit repackaging process include:

1) Pit Leak Check—to verify the integrity of the pit encapsulation, pits will be leak checked prior to repackagement.
2) Pit Cleaning—pits with surface contamination that may initiate corrosion of the pit clad during storage will be cleaned prior to repackagement.
3) Placement of pits within inner containment vessel, inner containment vessel welding, inert gas introduction into inner containment vessel—pits will be placed within the inner containment vessel of