- Storage itself (i.e., potential impacts resulting from having the pits reside inside the facility).

Each time pits are transferred from the transporter to their storage location inside the facility, there is a small probability that an accidental release could occur due to a handling accident. In addition, the transfer of pits from the transporter to their storage location would result in radiological exposures to involved workers.

Affected Environment

The release of radioactivity and toxic chemicals to the environment from a DOE facility is an important issue for onsite workers and the public. Since the human environment contains many sources of radioactivity and toxic chemicals, it is essential to understand the sources of these substances and how effectively they are controlled.

Table 5.3.2.1–1 summarizes the major sources of radiation exposure in the vicinity of SRS. Cancer statistics for the States of Georgia and South Carolina indicate that annually, an average person in those states has a 1.7×10^{-3} probability of contracting a fatal cancer (DOE 1990a:4-36). Using nominal fatal cancer risk factor of 5×10^{-4} cancer fatalities per person rem and the environmental radioactivity data for SRS in Table 5.3.2.1–1, it is calculated that fatal cancers within 80 kilometers (50 miles) of SRS attributable to environmental radioactivity released from SRS constitute 0.005 percent of

TABLE 5.3.2.1–1.—*Major Sources of Radiation Exposure in the Vicinity of the Savannah River Site*

SOURCE OF EXPOSURE	DOSE TO AVERAGE INDIVIDUAL (mrem/yr)[1]	PERCENTAGE OF TOTAL EXPOSURE
NATURAL BACKGROUND RADIATION		
Cosmic and external terrestrial	72	
Internal terrestrial	40	
Radon in home	200	
Total natural	312	82.8
MEDICAL RADIATION		
Diagnostic x-rays	39	
Nuclear medicine	14	
Total medical	53	14.0
OTHER SOURCES		
Weapons test fallout	<1	
Consumer and industrial products	10	
Air travel	1	
Nuclear facilities (other than SRS and transportation of radioactive materials)	<0.1	
SRS—environmental radioactivity	<0.1	
Total other	12	3.2
Total—all sources	377	100

[1]Effective dose equivalent.
Sources: NCRP 1987:15, 53; DOE 1990a:3-52