

## 2.0 End State Vision

### **The SRS Cleanup Reform Vision is to complete the SRS EM Cleanup Project by 2025.**

This section presents the end state vision for watersheds and inactive facilities, area by area, at the time of completion of the EM Cleanup Project.

### 2.1 SRS EM End State Vision Summary

SRS encompasses over 300 square miles with more than 1,000 facilities concentrated within only 10% of the total land area. As cleanup activities are completed, operations will be concentrated to the site's central core area. The land surrounding the central core area provides a protective buffer. All EM facilities and inactive waste units are being deactivated, decommissioned, and remediated. The facilities decommissioning alternatives are demolition or in-situ disposal. However, if a viable reuse is identified, SR will remove a facility or group of facilities from the scope.

The SRS EM Cleanup Project is scheduled for completion by the end of FY 2025, at which time EM will have completed its mission at SRS and will not require the use of any facilities. SRS will continue under Federal control with restricted recreational and no residential use. Production areas with no reuse plans will be cleaned to an industrial maintenance criterion. All nuclear materials and spent nuclear fuel will be dispositioned by reuse or disposal. The end state for SRS's most structurally hardened facilities, including reactors and chemical processing plants, will be in-situ disposal. Other industrial facilities will be demolished. HLW will be vitrified as a prelude to geologic disposal and the 51 storage tanks filled with grout. Remediation of 515 inactive waste sites, which includes contaminated groundwater, will be finished. Surface units vary in size from a few square feet to tens of acres and involve contamination from basins, pits, piles, burial grounds, landfills, and storage tanks, while contaminated groundwater plumes are substantially larger and range up to 1,600 acres. Long-term monitoring to verify that cleanup has been achieved may be required.

This section describes the 2025 end state for all SRS EM facilities and waste sites. For simplicity, this section focuses on major production areas.

Much of the information used to articulate this End State Vision is contained in the *Savannah River Site Environmental Management Integrated Deactivation and Decommissioning Plan* (WSRC-RP-2003-00233), and a *Draft SRS Risk-Based End State Vision*. These plans define two possible end states for facilities and waste tanks, and two possible end states for waste sites as follows.

### **Facility and Waste Tank End States**

**Demolition** Demolition includes demolishing and removing the entire facility to grade, and decommissioning as necessary to meet established release criteria. The end state must be compliant with applicable regulations and with the goal of no new waste sites created at SRS.

**In-Situ Disposal (ISD)** ISD is the planned end state for some structurally robust facilities for which demolition would be very expensive and unnecessary. In this case, radiological and other hazardous material is removed and the facility or waste tank is decontaminated to a level that meets established criteria, and additional barriers are emplaced as necessary. Some period of post-decommissioning monitoring may be required. The end state must be compliant with applicable regulations and with the goal of no new waste sites created at SRS.

### **Waste Site End States**

**No Further Action (NFA)** NFA is the preferred end state when, upon completion of the characterization or remediation process, certain sites are determined as needing no further remedial action. This decision is approved by regulatory agencies.

**Long Term Stewardship (LTS)** LTS provides safe and effective protection from residual hazards while optimizing future land and resource use. LTS may be achieved through the use of active or passive controls.

Note that soil remediation risk end states use the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) cancer risk assessment levels of either less than one in a million ( $< 10^{-6}$ ) for a residential (unrestricted) scenario or between a one in ten thousand to one in a million ( $10^{-4}$  to  $10^{-6}$ ) industrial worker scenario with institutional controls.

## 2.2 EM End State Physical Descriptions by Area

This section describes the 2025 end state for each area.

### A Area

A Area contains numerous administrative, technical support, and storage facilities including the Savannah River Ecology Laboratory (SREL). SREL features buildings and structures that are newer than most buildings in A Area and will remain outside of EM sponsorship.

The SRS Cleanup Reform Vision is to demolish buildings and structures located in A Area by FY 2020. The only exceptions will be to preserve some unique analytical capabilities of the Savannah River Technology Center (SRTC) and provide a significantly reduced SREL footprint.

A Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10^{-4}$  and  $10^{-6}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the A Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

### B Area

B Area is comprised primarily of administrative, laboratory, and storage facilities. Protective force operations are administered from several buildings and structures located in B Area. Some B Area facilities were constructed in the early 1950s, but most are of a more recent vintage. Most executive, management, and administrative functions will be performed by workers located in buildings, laboratories, and structures located in B Area for the duration of the EM Cleanup Project. In the absence of continuing mission area assignments, all facilities in B Area will be demolished by 2025.

Contiguous to B Area, in an area formerly called U Area, is the location of the former Heavy Water Components Test Reactor (HWCTR). This facility contained a research reactor built in the 1960s and operated for only a few years. HWCTR was shut down permanently in 1967. The support buildings and structures have been demolished, and the only structure remaining is the reactor building, a high-integrity steel containment structure that has been deactivated and welded shut, placing the facility into in-situ disposal as its end state.

B Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10^{-4}$  and  $10^{-6}$ . Groundwater contaminant

plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the B Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## C Area

C Area is one of five SRS reactor areas used to produce special nuclear materials. C Reactor is a multiple-story structure that contained a heavy water moderated production reactor. The disassembly area within the reactor building consists primarily of a water-filled basin with metal racks designed to store fuel tubes vertically and metal buckets to store targets used during reactor operation. The basin contains several million gallons of water used to shield the spent nuclear fuel and target assemblies following neutron irradiation. By the end of FY 2025, all hardened reactor facilities will be decommissioned by in-situ disposal and all non-hardened buildings and structures in C Area will be demolished. A perimeter fence will secure the remaining C Area facilities.

C Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the C Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## D Area

D Area is where heavy water was manufactured from 1952 until 1982, and where the site currently generates steam and electricity for site operations. Heavy water was used to moderate the five SRS production reactors. The manufacturing plant was located near the Savannah River and originally contained three sets of extraction towers plus the support facilities needed to concentrate and purify heavy water. The extraction towers and a number of process support buildings have been demolished. All but one of the remaining buildings and structures are scheduled for demolition.

D Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant

plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the D Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## E Area

E Area has been used to treat, store, and dispose of low-level radioactive, transuranic (TRU), and radioactive mixed waste. EM will not need any SRS facilities after 2025, therefore, E Area facilities will be deactivated and decommissioned, primarily by in-situ disposal except for the Solid Waste Disposal Facility. It is planned that low-level radioactive waste generated by SRS tenants or the Naval Nuclear Propulsion Program will continue to be buried within the Solid Waste Disposal Facility (SWDF) after FY 2025, but the volume will be extremely small. Any remaining operation of SWDF, therefore, will be transferred to another program office. Sanitary, hazardous, low-level, and radioactive mixed waste will be shipped directly to a commercial vendor for treatment and disposal. TRU waste will be shipped to New Mexico for geologic disposal. A perimeter fence will secure the remaining E Area facilities.

E Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-}04$  and  $10 \text{ E-}06$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the E-Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## F Area

F Area is located near the geographic center of SRS where special nuclear materials were processed and waste management operations were performed. F Area contains nuclear, chemical, industrial, administrative, laboratory, and storage facilities including 221-F Canyon Building with the Uranium Processing Facility (FA Line) and Plutonium Processing Facility (FB Line), 235-F Metallurgical Building, 247-F Naval Fuels Fabrication Facility, 772-F Central Laboratories, Mock-up/Fabrication Facility, and F Area Tank Farm (FTF). F Canyon and FB Line will be decommissioned by in-situ disposal. For HLW tanks, in-situ disposal entails removing empty tanks from service and filling with grout. In addition, the 1F and 2F Evaporators and contaminated waste transfer systems will be decommissioned in-situ by isolating the equipment from utilities before stabilizing with grout. All above-

ground buildings or structures will be demolished, and a perimeter fence will secure the remaining F Area facilities. Three new chemical processing facilities and waste solidification building may be constructed by the National Nuclear Security Administration (NNSA) in F Area, but all plutonium processing should be finished by the end of FY 2019 and the three facilities deactivated, decontaminated, and decommissioned before the EM Cleanup Project is completed by the end of FY 2025. This *PMP* assumes that NNSA will deactivate and decommission their own facilities and be responsible for any waste generated by their activities.

F Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-}04$  and  $10 \text{ E-}06$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the F Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## G Area

G Area is the non-industrial portion of SRS encompassing over 95 % of the total land area. This includes buildings and structures used by the U.S. Forest Service (USFS), South Carolina Institute of Archeology and Anthropology (SCIAA), CSX Railroad, land reserved for ecological and environmental research conducted by the University of Georgia Research Foundation, Inc. (operator of the Savannah River Ecology Laboratory), as well as any facility used by the vendors and suppliers that provide specialized design, construction, remediation, waste management, environmental monitoring, and analytical services to the EM Cleanup Project.

The developed or improved portions of G Area may contain light industrial, administrative, or storage facilities. Most tenants will be relocated to B Area or outside SRS with buildings and structures demolished and observable elements of the SRS infrastructure—electrical transmission lines, railroad tracks, and roadways—abandoned in place. The USFS may continue to operate from a cluster of small buildings and structures that serve as offices, meeting rooms, training facilities, storage buildings, and provide for vehicle parking and infrastructure.

Six figures in Appendix 1 identify cleanup and remediation plans for G Area listed by watershed.

## H Area

H Area is located near the geographic center of SRS where special nuclear materials were processed and waste management operations were performed. H Area contains nuclear, chemical, industrial, administrative, laboratory, and storage facilities including the 221-H Canyon Building and processing facility (HB Line) and H Area Tank Farm.

H Canyon, HB Line, and the Receiving Basin for Offsite Fuels will be deactivated before in-situ disposal. In-situ disposal of the HLW tanks entails removing empty tanks from service and filling with grout. In addition, the 1H, 2H, and 3H Evaporators and contaminated waste transfer systems will be decommissioned in-situ by isolating the equipment from all utilities before the evaporators are stabilized structurally with grout. All above-ground buildings including the Consolidated Incinerator Facility and Effluent Treatment Facility will be demolished. A perimeter fence will secure the remaining H Area facilities.

NNSA will decide whether tritium processing operations will continue at SRS after 2025.

H Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

If no further mission is planned for the H Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## K Area

K Area is one of five SRS reactor areas used originally to produce special nuclear materials. K Reactor is a multiple-story structure that contained a heavy water moderated production reactor. The disassembly area within the reactor building consists primarily of a water-filled basin with metal racks designed to store fuel tubes vertically and metal buckets to store targets used during reactor operation. The basin contains several million gallons of water used to shield the spent nuclear fuel and target assemblies following neutron irradiation. K Area is being used temporarily to store plutonium, Highly Enriched Uranium, and large volume of heavy water that has been contaminated by tritium. All surplus fissile material and tritiated heavy water will be dispositioned. By the end of FY 2025 all hardened reactor facilities will be decommissioned by in-situ disposal, and all non-hardened buildings and structures in K Area will be demolished. A perimeter fence will secure the remaining K Area facilities.

K Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the K Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE,

however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## **L Area**

L Area is one of five SRS reactor areas used originally to produce special nuclear materials. L Reactor is a multiple-story structure that contained a heavy water moderated production reactor. The disassembly area within the reactor building consists primarily of a large basin containing millions of gallons of water used to store fuel and target assemblies. L Area is being used today to store spent nuclear fuel of U.S.-origin that was used in domestic and foreign research reactors and returned to the U.S. to achieve U.S. nuclear nonproliferation policy. Spent fuel will be shipped to Yucca Mountain. By the end of FY 2025, all hardened reactor facilities will be decommissioned by in-situ disposal, and all non-hardened buildings and structures in L Area will be demolished. A perimeter fence will secure the remaining L Area facilities.

L Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the L Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## **M Area**

M Area was used to manufacture the fuel and targets used in the five SRS production reactors, including three large buildings in which reactor fuel elements were fabricated, two laboratories, a wastewater treatment plant, waste vitrification facility, and several support facilities including warehouses and offices for technical and administrative employees.

A significant number of facilities have already been demolished. All remaining structures in M Area will be demolished as part of the EM Cleanup Project.

M Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the M-Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor

assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## **N Area**

N Area, also called Central Shops, contains industrial, administrative offices, health and safety facilities, and warehouses. N Area is used to store electrical, mechanical, building materials, and equipment until needed during construction work. Hazardous waste is stored in N Area structures until shipped offsite for treatment and disposal by commercial vendors.

All structures in N Area will be demolished by the end of FY 2025.

N Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-}04$  and  $10 \text{ E-}06$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

If no further mission is planned for the N Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## **P Area**

P Area is one of five SRS reactor areas used originally to produce special nuclear materials. P Reactor is a multiple-story structure that contained a heavy water moderated production reactor. The disassembly area within the reactor building consists primarily of a large basin containing millions of gallons of water used to store fuel and target assemblies. By the end of FY 2025, all hardened reactor facilities will be decommissioned by in-situ disposal, and all non-hardened buildings and structures in P Area will be demolished. A perimeter fence will secure the remaining P Area facilities.

P Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-}04$  and  $10 \text{ E-}06$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the P Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## R Area

R Area is one of five SRS reactor areas used originally to produce special nuclear materials. R Reactor is a multiple-story structure that contained a heavy water moderated production reactor. The disassembly area within the reactor building consists primarily of a large basin containing millions of gallons of water used to store fuel and target assemblies. By the end of FY 2025, all hardened reactor facilities will be decommissioned by in-situ disposal, and all non-hardened buildings and structures in R Area will be demolished. A perimeter fence will secure the remaining R Area facilities.

R Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the R Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## S Area

S Area facilities are used to process high-level radioactive waste for geologic disposal. Current facilities include the Defense Waste Processing Facility (DWPF), Glass Waste Storage Building (GWSB) No. 1, Failed Equipment Storage Vaults, and typical support structures like administrative office buildings, maintenance and repair shops, and warehouses to store equipment and material. DWPF accepts pretreated high-level radioactive waste from H Tank Farm and eventually the Salt Waste Processing Facility (SWPF, planned to be completed in FY 2009) and converts HLW through vitrification to a stable form for disposal. Vitrified HLW is poured into stainless steel canisters that are stored until shipment to a high-level waste repository starting in FY 2010. A second Glass Waste Storage Building (No. 2) is planned to be constructed by the end of FY 2006.

DOE expects to finish all work in S Area by the end of FY 2025. DWPF and SWPF will be deactivated as prelude to in-situ disposal. The structural integrity of all waste transfer pipes and systems as well as the Failed Equipment Storage Vaults will be stabilized with grout. The superstructure surrounding both glass waste storage buildings will be removed, leaving the empty underground vaults with plugs in place. All other buildings and structures in S Area will be demolished as part of the EM Cleanup Project and a perimeter fence will secure the remaining S Area facilities.

S Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-04}$  and  $10 \text{ E-06}$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the S Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## T Area

T Area, originally called CMX/TNX, was used to test processing methods and equipment before installation in SRS production facilities. T Area contained many industrial and administrative buildings, warehouses, underground storage tanks, burial ground, and a seepage basin. Most buildings and structures in T Area have already been demolished, and contamination of the soil and groundwater will be addressed.

T Area will undergo cleanup of waste units to an extent that is protective under non-residential use, i.e., all waste units will be remediated such that they pose an industrial worker risk between  $10 \text{ E-}04$  and  $10 \text{ E-}06$ . Groundwater contaminant plumes will be less than drinking water standards or under a natural attenuation remedy to ensure that they eventually meet drinking water standards.

As no further mission is planned for the T-Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE, however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

## Z Area

Z Area contains facilities used to treat and dispose of the low-radioactivity portion of the salt solution in high-level radioactive waste and concentrate from Effluent Treatment Facility operations. The Saltstone Manufacturing Plant blends a low-radioactivity salt solution with cement, slag, and fly ash to create a mixture that hardens into a concrete-like material called saltstone, which is poured into the Saltstone Disposal Vault, sealed with concrete, and covered with soil and an engineered capping system constructed of clay and other materials to prevent any leaching of contaminants to local groundwater.

All buildings and structures in Z Area with the exception of the vaults will be demolished. A perimeter fence will secure the remaining Z Area facilities.

Since there are no waste units in Z Area, no remediation is planned.

As no further mission is planned for the Z Area, and future industrial use (and associated levels of exposure to environmental media) is unlikely, DOE may seek cleanup levels protective under a non-industrial scenario, such as "maintenance worker," whose assumed exposure would be one-tenth that of the industrial receptor assumed in baseline risk assessment. Cleanup levels are not set unilaterally by DOE,

however, and must be agreed to by EPA and SCDHEC through a Record of Decision for the waste units or the area.

DRAFT