generation rates, management facilities, treatment methods, and management capacity. In 1987, DOE initiated a comprehensive waste management program following the analysis of a preferred waste management strategy (DOE, 1987).

All waste management activities on SRS are guided by the "Federal Sector Pollution Prevention Control Strategy" and by DOE policy on Waste Minimization and Pollution Prevention as identified in DOE-HQ EH-25 memorandum "Integrating Pollution Prevention with NEPA Planning Activities", (DOE, October 15, 1992).

4.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

4.1 Construction and Normal Operation

4.1.1 Land

The proposed Health Protection Instrument Calibration Facility would be constructed and operated in B Area of SRS, in what is now an undeveloped location. The proposed facility would be located on a 1.2 hectare (ha) site, on the west side of SRS Road #2. This facility would be located within a general site bounded by north coordinates N87502.53 to N88463.04 and east coordinates E38953.92 to E40447.17. The location for the proposed Health Protection Instrument Calibration Facility is included in a DOE-SR approved Site Use Permit (SU-89-54-C Amendment #5; Hill, 1992) for the proposed 5 year footprint for the B Area Engineering Center Campus and in the current development plans for B Area (Zeigler, 1988). Amendment #5 of this site use permit which specifically addresses the area to be used by the proposed Instrument Calibration Facility, indicated no interferences with other land uses in the area. Conditions of this permit were that buildings must maintain a minimum 10-foot radius from monitoring wells; erosion control plans should be in place for construction; and a program plan must be prepared if a new water supply well is to be constructed.

Currently, 93 percent of SRS remains undeveloped (WSRC, 1989b). The 1.2 hectares to be cleared for the proposed facility represents the development of less than 0.002 percent of the total undeveloped SRS land area. The proposed project would be compatible with other land uses in B Area.

4.1.2 Socioeconomics

The socioeconomic impact of the proposed project could be broken down into two phases. The first would come from construction, and the second from normal operations. The construction of the proposed facility would be carried out by a fixed price contractor. The contract workers would comprise fewer than 100 specialists, who would be brought onto SRS for installation of major facility construction. This work force would be drawn from both local and non-local sources as determined by skilled worker availability. The proposed construction workforce would comprise less than 0.5% of the total SRS workforce.

Once completed, the proposed facility would be operated with a staff of fewer than 35 personnel. The staff of the new calibration facility (technicians, managers, maintenance personnel, administrators, etc.) would be composed of personnel who are already employed in the existing SRS calibration facility. Thus, there would be no socioeconomic impact associated with normal operations.

4.1.3 Air Quality

Construction related air quality effects fall within two areas: equipment use and soil disturbance. Diesel operated equipment (trucks, backhoes, and other diesel powered support equipment) would be used to haul soil and other solid wastes for disposal, for excavation, and in the performance of other routine construction activities. The operation of this class of equipment does not currently fall within the South Carolina Department of Health and Environmental Control (SCDHEC) requirements for air permitting activities. The environmental affects from the purchase and use of such equipment at SRS has been previously addressed and found to be individually and cumulatively not significant by DOE and is documented in two Categorical Exclusions (SR/CX9003015 and SR/CX9003025 both dated June 25, 1990).

Facility construction would result in some soil disturbance. The minimization and mitigation of this potential source would be covered under an approved Erosion Control Plan for the project.

After facility startup, the only radioactive material that would be released into the atmosphere would be tritium (^3H). The annual amount of ^3H released into the atmosphere would be approximately 200 μCi, at a rate of approximately 4 μCi per week. This release of ^3H would fall well within the limits established by DOE Order 5400.5 of 100 mrem per year. Currently all SRS releases account for only 0.46 mrem annually (WSRC, 1992a).

4.1.4 Groundwater and Surface-Water Resources

The proposed actions would not require the development of any new groundwater or surface water resources. The only groundwater resources which would be utilized in connection with this activity would be domestic water supplies for use as drinking water and sanitary sewer supplies, and fire water for use in charging the buildings fire suppression systems. All domestic waters would be permitted through SRS Area Facilities Coordinators and SCDHEC.

No surface water would be used during operation of the proposed facility. All domestic and fire water would be obtained from existing B Area water wells and delivered through existing distribution systems. The domestic water needs of the proposed facility are not expected to exceed 30 gallons per minute (gpm), and should not affect the water level of the supply aquifer. The fire water usage for this facility is normally expected to be zero gpm.

There would be no impact on SRS wetlands. As part of the routine SRS Site Use Permit system, each prospective site is reviewed for ecological impact. These reviews are conducted by the Savannah River Technical Center (SRTC). The review covers wetlands, groundwater and surface water resources (Gladden, 1990).

A review of the proposed calibration facility location has determined that there are no wetlands associated with the proposed location. The nearest wetland (a Carolina Bay) is more than 2.4 km (1.5 mi) away. Accordingly, there would be no infringement upon, or loss of wetlands. Some soil disturbance would occur as a result of the construction activities related to this project. The minimization and mitigation of this potential source would be covered under an approved Aiken County Erosion Control Plan for the project. Typical methods employed at SRS include such things as: the use of silt fences to prevent transport of sediment; the seeding of soil stockpiles to prevent erosion; and the development of siltation basins to trap sediments in construction site runoff.

4.1.5 Waste Management

The construction of the proposed calibration facility would result in the generation of some construction related debris. This debris would be disposed of in the SRS Sanitary Landfill or Erosion Control Pit. Since the proposed location lies in a previously undeveloped area, no contaminated soils or waste sites are expected to be encountered during construction. Aside from small amounts of domestic sanitary waste, no new waste streams would be generated from this facility as it is designed to replace an existing waste generator.

Besides the usual office and domestic waste items, the primary solid waste produced by the proposed calibration facility would be low-level radioactive waste (LLW). LLW consists of such items as shoe covers, rubber gloves, paper, and tape having contamination levels less than 250,000 disintegration per minute/100 square centimeters (dpm/100 cm^2). This LLW would be collected in radioactive waste boxes which would be subsequently shipped for processing and disposal in welded steel boxes of 2.5 cubic meters (m^3) capacity known as B-25s.

The projected volume of LLW to be generated at the calibration facility as a result of routine operations is 4 m^3 per year. This volume represents about 0.01 percent of the approximate 30,980 m^3 of LLW generated at SRS on an annual basis (DOE, 1990). This volume of LLW does not represent an increase in waste volume as the proposed facility would replace an existing calibration facility (i.e., a LLW generator). Existing LLW management facilities at SRS were designed to handle wastes generated by all SRS facilities. Therefore, there would be no additional burden on SRS waste handling capability by implementation of the proposed action.

The very small quantities of hazardous waste (rags saturated with lubricating oil, acetone, or alcohol) and radioactive mixed wastes (saturated rags used in decontamination of calibration instruments) associated with the proposed action would be handled in accordance with RCRA guidelines.

In all cases, the actions of the construction and operational work forces associated with this project would be guided by the Federal Sector Pollution Prevention Policies. To demonstrate the intent of the Federal Government as the national leader in pollution prevention policies and practices across all missions, activities, and functions, the workforces associated with the proposed action would;

- prevent or reduce pollution at the source wherever feasible.
- recycle in an environmentally safe manner the pollution that cannot be prevented.
- treat in an environmentally safe manner the pollution that cannot be prevented or recycled.
- dispose of pollution only as a last resort.

The project team's commitment to these federal guidelines would ensure DOE compliance with existing pollution prevention and control policies.

4.1.6 Radioactive and Hazardous Materials

Radiological doses to the offsite population for all SRS 1991 atmospheric releases have been estimated to be 7.1 person-rem, and 6.0 x 10^{-3} rem to the offsite maximally-exposed individual (WSRC, 1992). The proposed action would not result in any increased exposure to the offsite population, as the proposed facility is designed to replace an existing facility. Improvements in facility design, shielding, air filtration, and relocation of the calibration facility to a more centralized SRS location should result in a net decrease in the radiological doses to the on- and offsite population.

Exposure of operating personnel to radiation during normal operations is monitored by the SRS Health Protection Department. Exposure includes both external radiation and inhalation or ingestion of radionuclides. Radiation dose rates at the proposed facility shall be ALARA (As Low As is Reasonably Achievable) and shall not exceed 0.25 mrem/hr on the average to personnel continuously occupying controlled areas. At SRS "continuously occupied areas" are assumed to be occupied 2,000 hour per year. The design dose rate would ensure that the maximum annual individual dose rate to the staff in the new facility would be significantly less than 500 mrem. In comparison, maximum annual dose to individual staff members in the existing facility has been approximately 390 mrem (Polz, 1993). Based on an occupational risk factor of 4 x 10^{-4} fatal cancers per person-rem, workers engaged in this proposed project would not be expected to incur any harmful health effects from radiation exposures they receive during normal operations. Normal operating procedures require that operating personnel wear dosimeters, which measure the radiation exposure received while on SRS. Individual exposures are limited to and maintained below 2 rem/yr whole-body. However, the entire SRS has established individual area ALARA (As Low As Reasonably Achievable) and Reference Level Goals which are well below the 2 rem/yr limit and reestablished each year.

Those radioactive calibration sources currently being used in the 736-A facility would be relocated to the new calibration facility. The additional sources listed below would be required to be purchased in order for the proposed calibration facility to comply with DOE Orders and ANSI Standards. These new sources would represent an increase of 25% of the total number of sources being used in the existing calibration facility.

^{60}Co: (6,000, 75, 20, and 1 Ci)
^{137}Cs: (5,000, 100, 62, 20, 20, 2.2, 1.2, 0.5, and 0.001 Ci)
^{252}Cf: (4, 0.3, 0.03, and 0.01 mg)

Some of the personnel working in the proposed calibration facility may be working with the hazardous chemicals/materials listed in Table 4-1. These workers would be trained in the proper handling and precautionary measures to be taken when working with these materials. Workers would be fully trained and educated (OSHA Material Safety Data Sheets) on the specific health hazards associated with each of the materials listed in Table 4-1. In all cases workers would be required to wear the protective clothing and equipment appropriate for the material at hand (WSRC Manual 4Q, Industrial Hygiene).

The chemicals to be used in the proposed calibration facility would be present in quantities well below the reportable quantities listed in 40 CFR Part 302.

Table 4-1

Hazardous Chemicals/Materials

SOURCE	AMOUNT	FORM
Alcohol	1 gallon	liquid
Acetone	1 gallon	liquid
Lubricating Oils	1 gallon	liquid

4.1.7 Archaeological and Cultural Resources

Cultural resources at SRS are managed under the terms of a Programmatic Memorandum of Agreement (PMOA) among DOE-SR, the South Carolina State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (DOE, 1990a). DOE-SR uses this PMOA to identify cultural resources, assess these in terms of National Register eligibility, and develop mitigation plans for affected resources in consultation with the SHPO. DOE-SR would comply with the stipulations of the PMOA for all activities related to the construction and operation of the proposed instrument calibration facility.

As part of the routine SRS Site Use Permit system, each prospective site is reviewed for archaeological impact. These reviews are conducted by the University of South Carolina Archaeological Department. This review resulted in the determination that the proposed facility would have no impact on SRS archaeological resources. The proposed calibration facility location has also been reviewed under the Archaeological Resource Management Plan of the Savannah River Archaeological Research Program, (December 1989) and determined to be in the lowest, or Class III, area of archaeological concern. No impact on SRS archaeological or cultural resources is expected from the construction and operation of the proposed facility.

4.1.8 Ecology

As part of the routine SRS Site Use Permit system, each prospective site is reviewed for ecological impact. These reviews are conducted by SRTC and SRFS. The review covers threatened and endangered species, rare plants, and pristine biotic areas. In addition, a formal Biological Evaluation (B.E.) was conducted on the proposed site. The findings from the B.E. stated that no sensitive habitats were found within the immediate area selected for the calibration facility, and threatened and endangered species or their habitats would not be affected. No endangered species have been identified in the vicinity of the proposed calibration facility location from this or any previous SRS biological surveys. The habitats in the vicinity of the project location are not suitable for any of the federally protected species that have been identified for SRS, except for the red-cockaded woodpecker. The distances to the nearest active and inactive colonies for the red-cockaded woodpecker from the proposed project location are 15.8 km (9.8 mi) and 4.8 km (3.0 mi), respectively. The proposed calibration facility location is beyond the typical foraging distance for this species as reported on SRS. Accordingly, the proposed action would not have an effect on endangered species or their habitats (Roecker, 1992 & Gladden, 1990). The findings of the B.E. were also forwarded to the United States Fish and Wildlife Service (USFWS) in Charleston, South Carolina for review and approval. The USFWS concurred with the findings of the B.E. and concluded that the proposed action was "Not likely to adversely affect listed or proposed endangered species." (USFWS, 1992).

The proposed action would result in the harvesting of some marketable timber (roughly 3,100 board feet of marketable timber) during site preparation and clearing. This clearing represents less than 0.003 percent of SRS planted pine plantations. The proposed action would not affect any sensitive areas, such as floodplains, wetlands, habitats of state or federally listed threatened or endangered species, sole-source aquifers, and cultural resources.

4.1.9 Mitigation

The only mitigation action which would be required in conjunction with the proposed action is the preparation, approval, and implementation of an erosion control plan. All erosion control plans used on SRS must follow the format as established in the Aiken County Erosion Control Ordinance. Once prepared this plan must be screened by the U.S. Soil and Conservation Service (SCS) Field Office and approved by DOE-SR prior to any construction activity. During project construction, site inspections by the WSRC Environmental Protection Department and SCS personnel would be conducted to ensure compliance with the Erosion Control Plan.

4.2 Accident Analysis

4.2.1 Non-radiological Consequences

Prior to facility operation the Calibration Facility would be required to formulate appropriate emergency procedures for the evacuation of facility personnel in the event of an emergency (fire, tornado, etc.). These procedures would ensure that there would be no loss of life, or unnecessary radiological dose associated with a facility emergency or destruction.

The risk of a process accident as the result of a natural disaster (i.e., earthquake, flood, tornado) was examined. The risk of a building strike from a tornado was determined to have the greatest risk for natural disasters. Statistics (Ramsdell and Andrew, 1986) show reports of 37 tornadoes from 1954 to 1983 for a 1-degree square of latitude and longitude that includes SRS. This is an average of about one tornado per year. Based on data for this 30-year period, the estimated average frequency of a tornado striking any given location in South Carolina was 7.11×10^{-5} per year. This results in a point-strike recurrence interval of about once every 14,000 years. A direct strike by a tornado would result in total facility destruction and possible fatalities to the building's occupants.

Fire was also determined to pose a threat to the proposed facility. However, the proposed facility would be protected with an automatic fire detection and suppression system. The detection system would be connected to the SRS central alarm system. In the event of fire detector activation, the alarm would be sounded at the nearest SRS Fire Station (in F Area) which is 4.9 km (3.1 mi) away. The suppression system to be installed in the proposed facility would comply with all National Fire Protection Association (NFPA) standards for this type of facility. All NFPA life safety requirements would also be met. A large fire frequency has been determined by utilizing the approach that, at SRS, the frequency of a large fire is 6.05×10^{-5} per year per 10,000 square feet of facility (Paddleford, 1991). The proposed Instrument Calibration Facility would occupy approximately 22,00 square feet thus yielding a large fire frequency of 1.33×10^{-5}/yr. Based on the facility design and anticipated compounds to be used during normal operations, explosions associated with the proposed facility are not possible.

4.2.2 Radiological Consequences

The amount of fissile material to be located in the proposed facility would be well below the critical mass for each isotope (see Table 4-2). Thus, a criticality hazard does not exist in the proposed facility (Nadeau, 1990).

Table 4-2

Potential Criticality Hazard Sources

SOURCE	AMOUNT OF MATERIAL
Sealed Sources:	5.11 mg ^{252}Cf
Electroplated Sources:	0.013 mg ^{239}Pu

The maximum potential dose which could be experienced by an on- or offsite individual (1.44 REM and 6.57×10^{-3} REM respectively) involves an extremely unlikely scenario in which the proposed calibration facility is burned to the ground, melting the electroplated sealed sources, allowing release of the entire radiological inventory. Such an event would result in a postulated release at the proposed facility which is summarized in Table 4-3. The radiological dose calculations are based on airborne radioactivities, without any credit for engineered features or administrative controls (i.e., fire suppression, structural fire barriers, storage of calibration sources in shielded, fire proof vault, etc.). A Source Reduction Factor (SRF) of 0.00053 is used for the radioactive sources in the facility, except for the tritium in the Tritium Room, where a SRF of 1.0 is used. The SRF given in NUREG (1988) for the burning of a contaminated combustible powder is 0.00053.

In the event of a tornado strike, resulting in total facility destruction, the resulting dose to the on- and offsite population would be less than that which would be received from a fire (see Table 4-3). The resulting dose would be lessened as many of the source materials are electroplated onto metal discs. Without a fire to melt the electroplated metals, the source material would be released as a 'unit' to the environment and not scattered for maximum dispersion.

Both on- and offsite radiological doses were calculated using the AXAIR-89Q computer code (Nadeau, 1990). The calculations use the following parameters;

- Onsite receptors are located downwind at a distance of 100 meters [c] .
- Offsite receptor is located at the site boundary in the worst meteorological sector.
- Release duration is two hours.
- Site-specific atmospheric dispersion factors are employed from the current meteorological database.
- All releases are assumed to be at ground level. Building wake effects or plume-terrain interactions were conservatively not considered.
- ICRP-30 dose factors in AXAIR-89Q are employed.

The airborne radiological source term is the activity listed in Table 2-1 multiplied by the SRF. The calculated doses resulting from each source being released are shown in Table 4-3. The computed doses for a maximum exposed individual at the site boundary and within the site at 100 meters are 6.57×10^{-3} and 1.44 rem, respectively (Nadeau, 1990)

It is not possible to translate the doses given in Table 4-3 into an accurate Health Effects section as to date scientists have not measured the health effects from doses this low.

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[c] In accordance with the Interim Hazards Guide for Non-Reactor Facilities at the Savannah River Site, (WSRC, 1990), 'onsite' dose is conservatively computed for workers located at 100 meters and down wind of the subject facility.

Table 4-3

Radiological Dose from Accident

NUCLIDE	AMOUNT RELEASED TO ATMOSPHERE (Ci)	MAXIMUM DOSE 100 METERS (REM)	MAXIMUM DOSE AT SITE BOUNDARY (REM)
	GAMMA BEAM ROOM		
^{60}Co	3.530	0.911	4.17×10^{-3}
^{137}Cs	2.942	0.162	7.33×10^{-4}
Total	**6.472**	**1.073**	**4.90×10^{-3}**
	LOW SCATTER ROOM		
^{60}Co	1.06×10^{-2}	2.73×10^{-3}	1.25×10^{-5}
^{137}Cs	1.70×10^{-2}	9.35×10^{-4}	4.23×10^{-6}
^{252}Cf	1.62×10^{-3}	0.361	1.64×10^{-3}
Total	**2.92×10^{-2}**	**0.365**	**1.66×10^{-3}**
	PANORAMIC IRRADIATOR ROOM		
^{137}Cs	6.36×10^{-4}	3.50×10^{-5}	1.58×10^{-7}
	TRITIUM ROOM		
^{3}H	6.00×10^{-4}	9.78×10^{-8}	4.44×10^{-10}
	GAMMA AND NEUTRON WELL ROOM		
^{60}Co	2.65×10^{-3}	6.84×10^{-4}	3.13×10^{-6}
^{137}Cs	5.57×10^{-3}	3.06×10^{-4}	1.39×10^{-6}
^{252}Cf	3.18×10^{-6}	7.09×10^{-4}	3.21×10^{-6}
Total	**8.22×10^{-3}**	**1.70×10^{-3}**	**7.73×10^{-6}**
	ALPHA AND BETA ROOM		
$^{239}Pu/Be$	4.24×10^{-9}	3.72×10^{-6}	1.68×10^{-8}
	PERFORMANCE AND ENVIRONMENTAL TESTING LAB		
^{137}Cs	5.30×10^{-7}	2.92×10^{-8}	1.32×10^{-10}
	BETA BEAM ROOM		
$^{90}Sr/Y$	5.30×10^{-5}	1.18×10^{-4}	5.35×10^{-7}
^{147}Pm	1.59×10^{-5}	9.30×10^{-7}	4.21×10^{-9}
^{204}Tl	5.30×10^{-7}	2.09×10^{-9}	9.49×10^{-12}
Total	**6.94×10^{-5}**	**1.19×10^{-4}**	**5.39×10^{-7}**
FACILITY TOTAL		**1.44**	**6.57×10^{-3}**

4.3 Cumulative Impact

The principal cumulative impact from the construction and operation of the proposed project would be the loss of 1.2 hectares of planted pine plantation habitat (@3,100 board feet of marketable timber). Currently, 93 percent of SRS remains undeveloped (WSRC, 1989b). The proposed action represents the development of less than 0.002 percent of the total undeveloped SRS land area. Table 4-4 summarizes the effects of the proposed project. In addition, operation of the proposed facility would add approximately 200 µCi of tritium into the atmosphere on an annual basis.

Table 4-4

Summary of Potential Impacts

IMPACT SUBJECT	ENVIRONMENTAL CONSEQUENCES
Land	The Proposed Action would result in the clearing and development of 1.2 hectares (3 acres) of planted pine plantation. This comprises less than 0.003 percent of SRS pine plantations. The proposed project would be compatible with other land uses in B Area.
Socioeconomics	Facility construction and operation would not result in any direct or indirect socioeconomic impact to the SRS regional area.
Ecology	Facility construction and operation would not result in any adverse affect to SRS ecological (e.g., threatened and endangered species, fish/wildlife habitat, and wetlands) resources.
Cultural Resources	Facility construction and operation would not result in any adverse affect on the cultural/historical resources of SRS.
Radiation/Occupational Safety	Facility operations in a Radiologically Controlled Area (RCA) would be undertaken in accordance with the SRS radiation control procedures (such as Manual 5Q, Radiological Control) and would result in a radiation exposure to workers that falls within established lower administration guidelines and DOE limits for occupational exposure of 5 rem/yr. In accordance with the WSRC Radiological Improvement Plan (WSRC, 1992) individual personnel exposure would be limited to 2 rem/yr through work controls. Work in RCAs would be carried out by workers trained in the proper procedures for the location and situation involved. As a result of the new facility, overall worker exposure to radiation would experience a net decrease due to increased shielding and facility compliance with existing DOE orders governing radiation safety (i.e., DOE 5480.11). Occupational safety would also increase as the new facility would incorporate the latest DOE and OSHA safety designs.
Waste Management	Facility construction and operation would not result in the creation of any new waste streams. The proposed facility is designed to replace an existing facility which is not capable of complying with DOE Order 5480.4 or DOE Order 5480.11.
Air Quality	Facility operations would result in the annual release of 200 μCi of tritium (approximately 4μCi per week) to the atmosphere. The proposed action would not result in any increased exposure to the offsite population, as the facility is designed to replace an existing facility. Improvements in facility design, shielding, air filtration, and relocation of the calibration facility to a more centralized SRS location should result in a net decrease in the radiological doses to the on- and offsite populations. These doses fall well within the routine safety levels for normal operations, as governed by DOE Order 5400.5 (Radiation Protection of the Public and Environment). This Order limits doses to 100 mrem per year from all sources and pathways from routine DOE operations.
Transportation	Onsite transportation is not expected to be impacted by construction or routine operation of the proposed facility.

Table 4-4 (Cont'd)

Summary of Potential Impacts

IMPACT SUBJECT	ENVIRONMENTAL CONSEQUENCES
Accident Analysis	In the event of a catastrophic accident (fire, etc.) in which the entire radiological inventory of the proposed facility were released into the surrounding environment, radiation doses to onsite workers (100 yds) and offsite populace (site boundary) would be 1.4 rem and 6.57×10^{-3} rem respectively.
Cumulative Impacts	The principal cumulative impact would be the loss of 1.2 hectares of pine plantation habitat (@3,100 board feet of marketable timber).

5.0 REGULATORY AND PERMITTING PROVISIONS CONSIDERED

DOE policy is to perform its operations in compliance with all existing applicable federal, state, and local laws and regulations, and with all DOE orders. This section discusses the major regulatory programs that are applicable to the proposed action.

5.1 National Environmental Policy Act of 1969

NEPA, as amended (42 USC 4321 et seq), requires "all agencies of the Federal Government" to prepare a detailed statement on the environmental effects of proposed "major federal actions significantly affecting the quality of the human environment." This EA was prepared to assess the significance of the environmental effects of the proposed Instrument Calibration Facility and to comply with NEPA, the Council on Environmental Quality Regulations on Implementing National Environmental Policy Act (40 CFR 1500-1508), DOE National Environmental Policy Act; Implementing Procedures; Final Rule and Notice 10 CFR 1021, and DOE Order 5440.1E.

5.2 Solid Waste Regulations

Small quantities of miscellaneous non radioactive, non hazardous scrap from construction operations would be disposed in the SRS Solid Waste Landfill. During routine operations, miscellaneous trash (e.g., office waste paper, maintenance shop waste) would also be disposed in the landfill.

Any radioactive solid waste that would be generated would be subject to the requirements of DOE Order 5820.2, "Radioactive Waste Management".

Disposal of mixed waste (low-level radioactive hazardous waste) would be subject to the additional RCRA requirements and the South Carolina Hazardous Waste Management Regulations (SCHWMR) R.61-79.

5.3 Air Emissions Regulations

The projected annual release of 200 μCi of tritium (at a rate of approximately 4 μCi per week) falls within the emissions guidelines currently established by DOE and SCDHEC.

5.4 Domestic Water Regulations

The domestic water tie-in for the toilets, sinks and showers requires a Public Water Works permit to be approved by the State of South Carolina (SCDHEC Regulation R61-58).

5.5 *Liquid Discharge Regulations*

Both the Sanitary Sewer Construction Permit (SCDHEC Regulation R61-67) and the Sanitary Sewer Operation NPDES Permit (SCDHEC Regulation R61-68) require approval by the State of South Carolina, prior to construction and operation of the proposed facility.