5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

The Manager, Plant Closure and Decommissioning (MPC&D) is responsible for the overall management of the Rancho Seco ISFSI, and ensuring the safe storage of irradiated core components. The MPC&D will delegate in writing the succession of his responsibilities during his absences.

5.0 ADMINISTRATIVE CONTROLS

5.2 Organization

The Rancho Seco Defueled Safety Analysis Report (DSAR) describes the SMUD corporate organization and its relationship to the Rancho Seco nuclear organization. SMUD will operate the Rancho Seco ISFSI under the same organization responsible for the Rancho Seco Nuclear Generating Station.

The SMUD Board of Directors is the policy-making body that has ultimate responsibility for the Rancho Seco ISFSI license. The General Manager (GM) is SMUD's Chief Executive Officer and reports directly to the Board of Directors.

Administrative procedures define the lines of authority and responsibility, from executive management through the operating organizations, for the overall safety and operation of the Rancho Seco facilities.

The Rancho Seco ISFSI Safety Analysis Report defines the corporate and site management positions that are responsible for ensuring the safe storage of the spent fuel, ensuring effective day-to-day operations, and maximizing the effectiveness of nuclear policies and procedures. The senior site manager will delegate in writing the succession of his responsibilities during his absence.

5.0 ADMINISTRATIVE CONTROLS

5.3 ISFSI Staff Qualifications

Each member of the Rancho Seco staff meets or exceeds the minimum qualifications of ANSI N18.1-1971 for comparable positions, except the Radiation Protection/Chemistry Superintendent who meets or exceeds the qualifications of Regulatory Guide 1.8, September 1975. Plant personnel are selected and trained for their assigned duties to ensure safe and efficient Rancho Seco ISFSI operations.

Training, retraining, and replacement training programs for the operating staff and security force are maintained and conducted in accordance with approved procedures.

5.0 ADMINISTRATIVE CONTROLS

5.4 Procedures

5.4.1 Rancho Seco staff will prepare, review, and approve written procedures for all normal operations, maintenance, and testing at the Rancho Seco ISFSI prior to its operation. Written procedures shall be established, implemented, and maintained covering the following activities that are important to safety:

a. Administrative controls;

b. Routine ISFSI operations;

c. Alarms and Annunciators;

d. Emergency operations;

e. Design control and facility change or modification;

f. Control of surveillances and tests;

g. Control of special processes;

h. Maintenance;

i. Health physics, including ALARA practices;

j. Special nuclear material accountability;

k. Quality assurance, inspection, and audits;

l. Physical security and safeguards;

m. Records management;

n. Reporting; and

o. All programs specified in Specification 5.5.

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs

Initially, the managerial and administrative controls for the conduct of operations at the Rancho Seco ISFSI will be built upon the existing RSNGS organization under the 10 CFR 50 license. The administrative and procedural controls under the 10 CFR 50 license will include the requirements of the 10 CFR 72 license.

Prior to termination of the 10 CFR 50 license, appropriate 10 CFR 72.48 reviews will be conducted to ensure continued compliance with ISFSI license requirements. This process will result in "stand-alone" ISFSI programs that implement the 10 CFR 72 license. The District will maintain the appropriate administrative and managerial controls at the Rancho Seco ISFSI until the DOE takes title to the fuel.

Rancho Seco will implement the following programs to ensure the safe operation and maintenance of the ISFSI:

- Safety Reviews
- Radiological Environmental Monitoring Program
- HSM Thermal Monitoring Program
- Radiation Protection

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs

5.5.1 Safety Reviews

Rancho Seco staff will conduct safety reviews in accordance with 10 CFR 72.48 to determine whether proposed changes, tests, and experiments require NRC approval before implementation. Changes to the Technical Specification Bases and other licensing basis documents will be conducted in accordance with approved administrative procedures.

Rancho Seco staff may make changes to Technical Specification Bases and other licensing basis documents without prior NRC approval, provided the changes meet the criteria defined in 10 CFR 72.48.

The safety review process will contain provisions to ensure that the Bases and licensing basis documents are maintained consistent with the SAR.

Proposed changes that do not meet the criteria above will be reviewed and approved by the NRC before implementation. Changes to the Bases implemented without prior NRC approval will be provided to the NRC in accordance with 10 CFR 72.48.

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs

5.5.2 Radiological Environmental Monitoring Program

a. The radiological environmental monitoring program ensures the annual dose equivalent to any real individual located outside the ISFSI controlled area does not exceed the annual dose limits in 10 CFR 72.104(a).

b. Operation of the Rancho Seco ISFSI will not create any radioactive materials or result in any credible liquid or gaseous effluent release.

c. Dosimetry will be used to monitor direct radiation around the ISFSI.

5.5 Programs

5.5.3 HSM Thermal Monitoring Program

This program provides guidance for temperature measurements that are used to monitor the thermal performance of each HSM. The intent of the program is to prevent conditions that could lead to exceeding the concrete and fuel clad temperature criteria.

5.5.3.1 HSM Roof Concrete Temperature

The temperature measurement will be a direct measurement of the HSM roof concrete temperature, or other means that would identify and allow for the correction of off-normal thermal conditions that could lead to exceeding the concrete and fuel clad temperature criteria. A temperature measurement of the thermal performance for each HSM will be taken on a daily basis.

If the temperature of the HSM roof at the monitored location rises by more than 80°F, based on a daily surveillance, then it is possible that some type of an inlet and or outlet vent blockage has occurred and appropriate corrective actions will be taken to avoid exceeding the concrete and cladding temperature limits. This is based on Figure 8.2-16 of the Standardized NUHOMS® SAR (NUH-003, Revision 4A).

In addition, if the temperature of the HSM roof at the monitored location is greater than 225°F, then it is possible that some type of an inlet and or outlet vent blockage has occurred and appropriate corrective actions need to be taken to avoid exceeding the concrete and cladding temperature limits.

The HSM Thermal Monitoring Program provides a positive means to identify conditions that could approach the temperature criteria for proper HSM operation and allow for the correction of off-normal thermal conditions that could lead to exceeding the concrete and fuel clad temperature criteria.

5.5.3.2 HSM Air Temperature Difference

Following initial DSC transfer to the HSM, the air temperature difference between ambient temperature and the roof vent temperature will be measured 24 hours after DSC insertion into the HSM and again 7 days after insertion into the HSM.

If the air temperature differential is greater than 100°F, the air inlets and exits should be checked for blockage. If after removing any blockage found, the temperature is still greater than that specified, corrective actions and analysis of existing conditions will be performed in accordance with the Rancho Seco corrective action program and 10 CFR 72.48 to confirm that conditions adversely affecting the concrete or fuel cladding do not exist.

The specified air temperature rise ensures the fuel clad and concrete temperatures are maintained at or below acceptable long-term storage limits. If the temperature rise is within the specifications, then the HSM and DSC are performing as designed and no further temperature measurements are required.

5.5.3.3 HSM Air Vents

Since the HSMs are located outdoors, there is a possibility that the HSM air inlet and outlet openings could become blocked by debris. Although the ISFSI security fence and HSM bird screens reduce the probability of HSM air vent blockage, the ISFSI SAR postulates and analyzes the effects of air vent blockage.

The HSM design and accident analyses demonstrate the ability of the ISFSI to function safely if obstructions in the air inlets or outlets impair airflow through the HSM for extended periods. This specification ensures that blockage will not exist for periods longer than assumed in the analyses.

Staff will conduct a daily visual inspection of the air vents to ensure that HSM air vents are not blocked for more than 40 hours and that blockage will not exist for periods longer than assumed in the safety analyses.

5.5.4 Radiation Protection Program

The Radiation Protection Program will establish administrative controls to limit personnel exposure to As Low As Reasonably Achievable (ALARA) levels in accordance with 10 CFR 20.

a. As part of the LOADING and TRANSFER OPERATIONS, radiation monitoring of the MP-187 CASK and DSCs will be performed to ensure that surface dose rates are within the analyzed values.

b. A monitoring program to ensure the annual dose equivalent to any real individual located outside the ISFSI controlled area does not exceed regulatory limits is incorporated as part of the environmental monitoring program in the Radiological Environmental Monitoring Program of Specification 5.5.2.

c. Following placement of each loaded DSC/transfer cask into the cask decontamination area and prior to transfer to the ISFSI, the DSC smearable surface contamination levels on the outer surface of the DSC shall be less than 2200 dpm/100 cm^2 from beta and gamma emitting sources, and less than 220 dpm/100 cm^2 from alpha emitting sources.

5.0 ADMINISTRATIVE CONTROLS

5.6 Lifting Controls

5.6.1 Cask Lifting Heights

The lifting height of a loaded cask/DSC, is limited as a function of location and temperature, as follows:

a. No lifts or handling of the cask/DSC inside the Fuel Storage Building at any height is permissible at DSC basket temperatures below -20°F.

b. The maximum lift height of the cask/DSC inside the Fuel Storage Building shall be 80 inches if the basket temperature is below 0°F but higher than -20°F.

c. No lift height restriction[1] is imposed on the cask/DSC inside the Fuel Storage Building, or lowering the cask from or raising the cask into the Fuel Storage Building, if the basket temperature is higher than 0°F.

d. The maximum lift height and handling height for all transfer operations outside the Fuel Storage Building, with exception of lowering the cask from or raising the cask into the Fuel Storage Building, shall be 80 inches if the basket temperature is greater than 0°F.

e. The maximum lift height of the cask/DSC over the cask wash-down area inside the Fuel Storage Building shall be seven inches.

These restrictions ensure that any DSC drop as a function of location or low temperature is within the accident analysis. The DSC basket temperature can not be lower than the ambient air temperature. The record low temperature at Rancho Seco is $+17^0$F. Conformance with the temperature limits is confirmed if the ambient air temperature has not been less than the specified temperature limit. If the DSC basket temperature and location are outside of the specification limits, lifting and transfer operations will be terminated.

[1] No lift height restriction as a function of temperature. Other administrative lift height restrictions may apply.

5.0 ADMINISTRATIVE CONTROLS

5.6 Lifting Controls

5.6.2 Cask Drop

Inspection Requirement

The DSC will be inspected for damage after any transfer cask drop of fifteen inches or greater through air.

Background

Cask/DSC handling and loading activities are controlled under the 10 CFR 50 license until a loaded cask/DSC is placed on the transporter, at which time fuel handling activities are controlled under the 10 CFR 72 license. Although the probability of dropping a loaded cask/DSC while en route from the Fuel Storage Building to the ISFSI is small, the potential exists to drop the cask 15 inches or more.

Safety Analysis

The analysis of bounding drop scenarios shows that the transfer cask will maintain the structural integrity of the DSC pressure containment boundary from an analyzed drop height of 80 inches. The 80-inch drop height envelops the maximum vertical height of the transfer cask when secured to the transport trailer while en route to the ISFSI.

Although analyses performed for cask drop accidents at various orientations indicate much greater resistance to damage, requiring the inspection of the DSC after a drop of 15 inches or greater ensures that:

1. The DSC will continue to provide confinement

2. The transfer cask can continue to perform its design function regarding DSC transfer and shielding.

5.0 ADMINISTRATIVE CONTROLS

5.7 Flammable Fuel Controls

The ISFSI fire analysis postulates fire accidents that take place during DSC transfer to the ISFSI, DSC insertion into an HSM, or DSC storage in an HSM. The analysis postulates a worst case fire where 300 gallons of diesel fuel forms a pool directly beneath a loaded cask/DSC. The analysis uses the fire parameters from 10 CFR 71.73, and assumes the fire engulfs the entire cask/DSC. The results of the analysis show that the DSC maintains its integrity during the postulated fire accident.

SMUD will allow only diesel-fueled vehicles inside the ISFSI. Although there may be several vehicles involved in fuel transfer operations, it is not credible that more than one vehicle would simultaneous leak the entire contents of its diesel fuel. Accordingly, to ensure that the fire analysis bounds ISFSI fuel transfer operations, the amount of diesel fuel allowed in any single vehicle involved in loaded cask/DSC transfer operations will be limited to 200 gallons.

This specification does not exclude electric vehicles from the ISFSI.