POST SHUTDOWN DECOMMISSIONING

ACTIVITIES REPORT

FOR

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT 1

DECEMBER 1998

POST SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT
FOR
SAN ONOFRE NUCLEAR GENERATING STATION
UNIT 1

TABLE OF CONTENTS

I. INTRODUCTION

In accordance with the requirements of 10 CFR 50.82(a)(7), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) submit this update to the Post Shutdown Decommissioning Activities Report (PSDAR) for San Onofre Nuclear Generating Station (SONGS) Unit 1. The NRC guidance provided in Draft Regulatory Guide DG-1071, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," was followed in the preparation of this PSDAR. This update informs the NRC that SCE and SDG&E are proceeding with decommissioning planning and intend to begin the decommissioning activities on the schedule provided herein. This update also addresses the decommissioning costs and environmental impact associated with the described decommissioning activities.

II. BACKGROUND

SONGS 1 began commercial operation on January 1, 1968. The SONGS 1 Nuclear Steam Supply System is a Westinghouse three loop pressurized water reactor. The plant was constructed by Bechtel. SONGS 1 was permanently shutdown on November 30, 1992.

Defueling of SONGS 1 was completed on March 6, 1993, and a letter (Reference 2) certifying the defueled status was submitted to the NRC on March 8, 1993. Following this certification, the SONGS 1 Operating (Possession Only) License (Reference 3) went into effect. On December 28, 1993, the NRC approved the SONGS 1 Permanently Defueled Technical Specifications (PDTS) (Reference 4) which removed many of the operating requirements.

In accordance with the regulations then in effect, SCE and SDG&E provided a Proposed Decommissioning Plan (Reference 1) to the NRC by letter dated November 3, 1994. The plan indicated SCE had elected to place SONGS 1 in SAFSTOR until the shutdown of SONGS 2 and 3 at the end of their license life (2013). SCE and SDG&E planned to decommission all three units at the same time.

Since the shutdown of SONGS 1, the unit has remained in a SAFSTOR condition. The only significant activity conducted at the site was the removal of two emergency diesel generators following their sale.

In 1996, the NRC revised the regulatory requirements for decommissioning. This revision included replacing the requirement for a decommissioning plan with a requirement for a Post Shutdown Decommissioning Activities Report (PSDAR). The NRC noticed in the Federal Register on December 19, 1996 that the SONGS 1 Decommissioning Plan became the SONGS 1 PSDAR when the revised regulations went into effect on August 28, 1996.

III. DESCRIPTION OF PLANNED DECOMMISSIONING ACTIVITIES

SCE and SDG&E have decided to proceed with the decommissioning of SONGS 1, commencing with decommissioning planning in 1998. SCE and SDG&E have determined that customers will benefit if SONGS 1 decommissioning is conducted before the end of SONGS 2 and 3 operations because:

- ✦ It will reduce customer costs,
- ✦ It will resolve an uncertain customer liability,
- ✦ Decommissioning can be accomplished safely using proven technologies,
- ✦ Personnel with a strong SONGS 1 knowledge base are currently available, and
- ✦ Sufficient funding is available to proceed.

A. Decommissioning Activities and Planning

SCE and SDG&E plan to proceed with the DECON decommissioning option for SONGS 1 in 2000. DECON is the alternative in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use. SCE, as the operating agent for SONGS 1, will complete the detailed planning required for each decommissioning activity prior to the start of each activity.

B. Planning Activities (Prior to Submittal of this updated PSDAR)

SCE has used the majority of the time period between the decision to permanently shutdown the plant and the submittal of this updated PSDAR to the NRC to place and maintain the unit in SAFSTOR. More recent considerations have resulted in a decision to proceed with SONGS 1 decommissioning. SCE established a decommissioning project, mobilizing key SCE management and staff personnel, and specialty contractors with decommissioning knowledge and experience, to be used as required, commenced planning activities, and submitted an application to the California Public Utilities Commission (CPUC) to advise it of the decision to proceed with SONGS 1 decommissioning planning and to request authorization to access 3% of the decommissioning trust funds for planning purposes.

Ongoing planning and preparation for decommissioning include the following generalized types of activities:

- Identify changes to procedures and license basis documents necessary to proceed with decommissioning,
- Review existing plant programs to assess their applicability to decommissioning,
- Prepare an occupational dose estimate for decommissioning activities, and
- Evaluate disposition options for facility components and structures, including planning for Dry Cask Storage.

C. Plant Dismantlement

SCE and SDG&E have based decommissioning planning for SONGS 1 on proceeding with the DECON decommissioning option. It is expected to result in the decontamination and dismantlement of the majority of plant structures and facilities by 2008, and the construction of an Independent Spent Fuel Storage Installation (ISFSI) by the year 2004. SCE will decontaminate and dismantle the facilities and structures that will remain to support spent fuel and Greater Than Class C (GTCC) waste storage in the ISFSI after the spent fuel and GTCC wastes are removed from the site.

The following describes activities included in the dismantlement period:

- Provide alternate sources of support for site operational functions that are currently shared with SONGS 1;
- Perform primary systems decontamination if appropriate;
- Perform asbestos abatement program;
- Conduct decontamination of facility surfaces, components, and piping systems as required;
- Conduct decommissioning activities, including Large Component Removal, structure demolition, etc.;
- Ship and properly dispose of all remaining hazardous and/or radioactive materials;
- Conduct soil remediation as required; and
- Perform a comprehensive final site survey to demonstrate compliance with site release criteria [10 CFR 20, Subpart E]. (Note: This activity may be postponed until after the decommissioning of Units 2 and 3.)

After the dismantlement period, the spent fuel and GTCC waste will remain stored in the ISFSI.

D. Major Decommissioning Activities

The Code of Federal Regulations, as specified in 10 CFR 50.2, defines major decommissioning for a nuclear power facility as "...any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components for shipment containing greater than class C waste...." This includes the permanent removal of the SONGS 1 reactor vessel and internals, pressurizer, steam generators, large bore reactor coolant piping, and other large components that are radioactive to a comparable degree.

The planned major decommissioning activities to be performed at SONGS 1 include the following:

Reactor Vessel and Internals

The Reactor Vessel and Internals are described in Section 3.3.7 of the Defueled Safety Analysis Report (DSAR), which was issued in August 1998. The current SONGS 1 Decommissioning Cost Analysis calls for the removal and segmentation of the reactor vessel and internals. However, SCE will evaluate the feasibility of removing and disposing of the reactor vessel, including the reactor head, and the reactor internals intact.

Estimates of radionuclide concentrations in the vessel from neutron activation show that the limits for a 10 CFR 61 disposal site package will not be exceeded and the specific activity of the package will be within the limitations for a 10 CFR 71 shipment package. This allows the vessel, including internals, to be qualified for normal transportation conditions.

In either alternative, the vessel, with or without internals, will be shipped in an approved manner to a low level radioactive waste disposal facility. A portion of the highly activated reactor vessel internals, if segmented, will be characterized as GTCC waste. The GTCC material will be stored in the ISFSI until it can be removed from the site.

Pressurizer and Steam Generators

The Pressurizer and Steam Generators are described in DSAR Section 3.3. The pressurizer and steam generators' size, weight, and configuration, and the limited access in containment, place constraints on the intact removal of these components.

Large components may be prepared for shipping inside containment or moved out of the containment sphere to a shipping preparation area. Each component will then be packaged and shielded as required for transport, loaded onto a suitable transporter, and shipped to a disposal facility.

Reactor Coolant System and Other Large Bore Piping

The Reactor Coolant System (RCS) and other large bore piping are described in DSAR Section 3.3.7. SCE will evaluate whether to perform a RCS chemical decontamination of the RCS prior to conducting any major decommissioning activities. Chemical decontamination may be an appropriate option to reduce personnel radiation exposure during decommissioning work activities.

The decontamination effort under consideration for the RCS includes the pressurizer and the steam generators, and portions of the following appended systems: letdown and charging, residual heat removal, loop fill and drains, seal injection and return, and selected dead leg piping. Modifications to the systems may be necessary to establish the required flow paths for chemical decontamination. The reactor vessel would probably be bypassed and not included in the RCS decontamination. The chemical decontamination operation would be controlled by approved plant procedures.

The dose reduction benefits for SONGS 1 may not be significant enough, however, to warrant the cost of performing RCS chemical decontamination. Because the unit has been shutdown for a long period, radioactive decay has reduced dose rates. In addition, substantial efforts could be required to inspect, test, and restore RCS components to a condition adequate for chemical decontamination. If SCE does not perform a chemical decontamination, the RCS and other large bore piping will be structurally removed in accordance with general decommissioning practices as discussed in Section III.E below.

Containment

The Containment Sphere and Sphere Enclosure Building are described in DSAR Section 3.3. Modifications to the containment sphere and the sphere enclosure building may be necessary for large component removal. SCE plans to leave the Containment Sphere in place until after the majority of radioactive components are removed from inside the sphere. SCE will remove the concrete Sphere Enclosure Building roof and walls by an appropriate method. Then the steel containment sphere will be removed.

Spent Fuel Pool

Spent fuel handling and storage is described in DSAR Section 3.2. SCE will decontaminate and dismantle the spent fuel handling and storage facility in accordance with the general decommissioning practices, as discussed below, after all spent fuel is removed from the spent fuel pool.

E. Other Decommissioning Considerations

SCE may decontaminate and dismantle the contaminated systems, structures, and components by decontamination in place, dismantlement and decontamination, dismantlement and disposal, or a combination of these methods. A combination of these methods may be used to reduce contamination levels, worker radiation exposures, and project costs. These methods are the most practicable and widely used in the industry. SCE, however, will consider new technologies as they are developed. General considerations applicable to these activities are described below:

General Decommissioning Activities Relating to Removal of Radiological Components and Structures

Components will be safely and efficiently removed using the techniques and methods determined to be the most appropriate for the particular circumstances and as specified by engineering. Openings in components will be covered and sealed to minimize the spread of contamination. The components may be moved to a processing area for volume reduction and packaging into containers for shipment to a processing facility for decontamination or to a low-level radioactive waste (LLRW) disposal facility.

Contaminated concrete and structural steel components will be decontaminated and removed as required to gain access to contaminated and uncontaminated systems and components. After the systems and components are removed and processed as described above, the remaining contaminated concrete and structural steel components will be decontaminated and/or removed. Contaminated concrete which remains will be packaged and shipped to a LLRW disposal facility. Contaminated structural steel components may be removed to a processing area for decontamination, volume reduction, and packaging for shipment to a processing facility or to a LLRW disposal facility as required.

Decontamination Methods

Contaminated systems and components will be removed and sent to an offsite processing facility or to a LLRW disposal facility. Onsite decontamination of systems and components will generally be limited to activities needed to maintain personnel exposure as low as reasonably achievable (ALARA), to expedite equipment removal, and to minimize the spread of contamination. Decontamination may also be conducted onsite as part of volume reduction.

Stabilization or removal of loose surface contamination will be accomplished primarily by application of coatings and wiping. Airborne contamination control and waste processing systems will be used as necessary to control and monitor any such contamination if other methods are used (e.g., grit blasting, high pressure water).

Contaminated and activated concrete, and other contaminated materials, will be removed and sent to a LLRW disposal facility. Removal of concrete will be performed using a method which controls the removal depth to minimize the waste volume produced (e.g., scabbling, scarifying). Vacuum removal of the dust and debris with High Efficiency Particulate Air filtration of the effluent will be used to minimize the need for additional respiratory protection control measures.

Dismantlement Methods

SCE will use controlled dismantlement methods to remove the SONGS 1 structures, systems, and components. Two basic types of dismantlement methods exist:

- Mechanical Methods - Mechanical methods utilize equipment which machines the surfaces of the material that is being cut. These methods typically are capable of cutting without generating significant amounts of airborne contamination. This attribute makes these methods attractive for most of the contaminated piping, equipment, and components that will be removed at SONGS 1. The outside diameter machining method is best suited for cutting large bore contaminated piping. Smaller bore contaminated piping, tubing, and supports can be cut using any of the mechanical methods (e.g., band saws, reciprocating saws, hydraulic shears, etc.).

- Thermal Methods - Thermal methods melt or vaporize the surfaces of material that is being cut. The cutting debris is transported from the cut region with a gas jet or water spray. Although thermal methods are significantly quicker than mechanical methods, they have high power requirements and generate airborne contamination when used on contaminated systems in air. Generation of airborne contamination can be easily controlled when the method is used underwater. Thermal methods are suitable for segmenting large vessels in areas that can easily be sealed, filtered, or maintained underwater. The method is also suitable for use at a cutting station with air filtration. Thermal methods are appropriate for removing structural steel if it has been decontaminated or if a local contamination envelope with HEPA filtration is established. Appropriate lead paint removal controls are also implemented.

Removal and Compaction or Incineration of Low-Level Radioactive Waste

LLRW will be processed in accordance with plant procedures and sent to LLRW disposal facilities. Some LLRW may be incinerated offsite at a licensed facility, however, no incineration will occur onsite. Onsite compaction will be utilized as appropriate.

Soil Remediation

Soils and pavement/asphalt will be surveyed and characterized in accordance with the site characterization program. As necessary, soils and pavement will be removed, processed, and disposed of at a licensed facility if determined to contain contamination levels above current NRC site release requirements [10 CFR 20, Subpart E].

Processing and Disposal Site Locations

Several locations are currently available for the disposal or processing of LLRW. These include, but are not limited to:

Chem Nuclear - Barnwell, South Carolina
Envirocare - South Clive, Utah
Hake - Memphis, Tennessee
GTS Duratek - Oak Ridge, Tennessee
US Ecology - Oak Ridge, Tennessee

Low-level radioactive waste burial is a major element of decommissioning cost. Under the Low Level Radioactive Waste Policy Amendments Act of 1985, the states have the ultimate responsibility for disposing of LLRW generated within their own borders. Most states have entered into multi-state regional compacts to provide joint disposal sites for their wastes. California is a member of the Southwestern Compact, which is currently in the process of establishing such a facility at Ward Valley, California.

Removal of Mixed Wastes

SCE will manage mixed wastes according to all applicable federal and state regulations including NRC handling, storage, and transportation regulations. Due to limited treatment and/or disposal options for mixed waste, storage of mixed waste may be required beyond completion of decommissioning activities in 2008. In addition, mixed wastes from SONGS 1 will be transported only by authorized and licensed transporters and shipped only to authorized and licensed facilities. SCE will render the mixed wastes non-hazardous if technology, resources, and approved processes are available.

Storage/Removal of Spent Fuel

An ISFSI will be needed at SONGS to facilitate the decommissioning of the systems supporting wet fuel storage at SONGS 1. The ISFSI will remain in place until the spent fuel is removed from the site.

The Nuclear Waste Policy Act of 1982 established a program under the direction of the Department of Energy (DOE) for disposal of spent nuclear fuel and high level radioactive waste from commercial nuclear facilities. The principal objective of the Act is the siting, construction, and operation of a deep mined geologic repository for spent nuclear fuel. The DOE is obligated, under the Act, to begin accepting spent nuclear fuel no later than January 31, 1998.

The program is to be financed in large measure by fees paid by past and present nuclear power generators, primarily electric utilities.

Due to program delays, the DOE has indicated that it will not begin accepting spent nuclear fuel prior to 2010. The DOE has also projected in its most recent priority rankings and spent fuel acceptance rates that all SONGS 1 spent fuel will not be removed from the site within the first ten years after the DOE begins accepting spent fuel.

F. Site Restoration

As required by the grant of easement for the site, all structures and facilities will be removed at the discretion of the U.S. Navy. After decontamination and dismantlement of the plant structures, systems, and components is completed in accordance with the easement agreement, SCE will perform a survey of those areas to demonstrate compliance with NRC site release criteria [10 CFR 20, Subpart E].

IV. SCHEDULE FOR DECOMMISSIONING ACTIVITIES

Attachment 1 presents the schedule and milestones for major decommissioning activities. This schedule is based on initiating decommissioning in early 2000, upon authorization from the CPUC for SCE and SDG&E to access their decommissioning trust funds. It is also based on the assumption that the SONGS 1 spent fuel will be transferred to an ISFSI until it is transferred to an offsite facility or is otherwise removed. SCE currently intends to characterize the SONGS 1 site, perform site remediation, and prepare for license termination after SONGS 1 decommissioning activities are completed in 2008. (Note: This activity may be postponed until after the decommissioning of Units 2 and 3.) SCE may delay license termination, however, until after the SONGS 1 spent fuel is removed from the site. Activities requiring significant NRC effort and resources are also included in Attachment 1.

V. ESTIMATE OF EXPECTED DECOMMISSIONING COSTS

In December, 1998, SCE and SDG&E expects to file an updated decommissioning cost estimate (Reference 5) with the California Public Utilities Commission (CPUC). The decommissioning cost estimate was updated to reflect SCE and SDG&E's current assumptions for post shutdown spent fuel storage, LLRW burial costs, contingency, and escalation factors. The estimate is the basis for the current SONGS 1 decommissioning costs. The estimated cost to complete decommissioning of SONGS 1 is $459 million in 1998 dollars. The SONGS 1 decommissioning cost estimate is summarized as follows:

Preliminary Planning	$ 9,600,000
Dismantlement Activities (incl. Large Component Removal)	
Decontamination	11,025,000
Removal	133,044,000
Packaging	4,256,000
Shipping	4,625,000
Staffing	131,333,000
Other	46,281,000
LLRW Burial	74,089,000
Spent Fuel Storage	44,519,000
Total Cost to Decommission SONGS 1	$458,772,000

In 1985, the California State Legislature enacted the Nuclear Facility Decommissioning Act to provide greater assurance that the citizens of California are protected from exposure to radiation from nuclear facilities and that the costs of electricity generated by nuclear facilities would be reduced to the lowest levels consistent with public health and safety. The Act authorized the CPUC to establish a comprehensive framework to prudently defray the ultimate costs of decommissioning nuclear facilities.

In addition, the Act ordered each electric utility owning or operating a nuclear facility to establish externally managed, segregated funds for the purpose of funding the decommissioning of its nuclear facilities. SCE and SDG&E established the SONGS 1 Decommissioning Trust Funds under the SONGS Decommissioning Master Trust Agreements, and SCE and SDG&E's customers have contributed to the funds since 1978. SCE and SDG&E believe the amount currently accumulated in the SONGS 1 decommissioning trust funds will provide an amount sufficient to complete the SONGS 1 decommissioning project as outlined above.

VI. ENVIRONMENTAL IMPACTS

SCE performed an environmental review to evaluate all potential environmental impacts associated with the proposed decommissioning activities. This evaluation used as its basis NUREG-0586, "Final Generic Environmental Impact Statement (FGEIS) on Decommissioning of Nuclear Facilities," August, 1988 (Reference 6), the AEC site-specific environmental statement, "Final Environmental Statement related to the Operation of San Onofre Nuclear Generating Station Unit 1," October, 1973 (Reference 7), and the NRC site-specific environmental assessment, "Environmental Assessment for the San Onofre Unit 1 Full-Term Operating License," September 16, 1991 (Reference 8).

The environmental review concluded that the impacts due to decommissioning of SONGS 1 will be bounded by the FGEIS and the site-specific environmental statement and assessment. This conclusion is supported by the following facts:

- The postulated impacts associated with the methods chosen, DECON after SAFSTOR, were previously considered in the FGEIS.
- There are no unique aspects of either the plant or of the decommissioning techniques to be utilized that would invalidate the conclusions reached in the FGEIS.
- The methods to be employed to dismantle and decontaminate the Unit 1 portion of the SONGS site are standard construction-based techniques fully considered in the FGEIS.
- The site-specific personnel collective radiation exposure for all decommissioning activities will be estimated using conservative methods.

The evaluation concluded that SONGS 1 decommissioning will result in generally positive environmental effects at the SONGS site because:

- Radiological sources that create the potential for radiation exposure to site workers and the public will be eliminated.
- Hazardous materials and chemicals will be removed.
- The site will be returned to a condition that is consistent with the interests of the lessor, the U.S. Department of the Navy.

The decommissioning will be accomplished with no significant adverse environmental impact because:

- ✦ No site-specific factors pertaining to SONGS 1 would alter the conclusions of the FGEIS.
- ✦ Radiation dose to the public will be minimal.
- ✦ Radiation dose to the decommissioning workers will be a fraction of the operating experience.
- ✦ Decommissioning is not an imminent health or safety problem and will generally have a positive environmental impact.

SCE will prepare a detailed occupational radiation exposure estimate upon completion of additional site characterization. SCE anticipates that the estimate will be under the FGEIS estimate of approximately 1100 person-rem for immediate DECON simply due to the decay of cobalt-60, the isotope that contributes much of the occupational radiation exposure.

Radiation exposure to off-site individuals for expected conditions or from postulated accidents is bounded by the Environmental Protection Agency's Protective Action Guides and NRC regulations. Doses due to the release of radionuclides in effluents will be negligible compared to the allowable limits. Moreover, the existing Radiological Environmental Monitoring Program, supporting operations at SONGS 2 and 3, will continue to ensure that activities at SONGS, including Unit 1 decommissioning, have no significant impact on the local environs.

No significant impacts are expected from the disposal of low level radioactive waste. The total volume of SONGS 1 LLRW was estimated at 74,878 cubic feet (Reference 5). The estimate of about 75,000 cubic feet is well below the FGEIS estimated volume of 647,700 cubic feet for the reference pressurized water reactor. Actual volumes from the decommissioning of SONGS 1 may be further reduced through volume reduction and decontamination techniques, however, volumes may be higher if volume reduction and decontamination techniques are found to be less cost effective than direct disposal or the actual volume of material to be buried is greater than the amount estimated. SCE will base decisions on techniques to be employed on costs of disposal, cost of volume reduction techniques, resource availability, and other work management factors at the time of dismantlement.

Transport of LLRW could contribute radiation exposure to the truck drivers and to members of the public who reside along the transport routes. Based on estimates in Reference 8 for these radiation exposure pathways, the proposed shipment of about 75,000 cubic feet of low level waste (150 shipments at 500 cubic feet each) should contribute less than 5 person-rem to the truck drivers and less than 3 person-rem to the public along the route. These estimates are comparable to those provided in the FGEIS and are not significant compared to other sources of public radiation exposure.

The non-radiological environmental impacts from decommissioning are temporary and are not significant. The largest occupational risk associated with decommissioning is related to the risk from industrial accidents. The primary environmental effects are short term, and include small increases in noise levels and dust in the immediate vicinity of the site, and truck traffic for hauling equipment and debris. No significant socioeconomic impacts, other than those associated with the decommissioning project (e.g., loss of jobs), or impacts to local culture, archaeological, terrestrial, or aquatic resources were identified. Given the low level of contamination and the expected volume of waste, disposal of LLRW offsite in a timely manner should be possible. If, for any reason, some portion of these wastes needs to be stored temporarily onsite, adequate space exists. SCE anticipates no significant environmental impacts from temporary onsite storage because the project will comply with all applicable state and federal regulations.

VII. REFERENCES

1. SCE letter from Richard M. Rosenblum to the NRC Document Control Desk, Proposed Decommissioning Plan, dated November 3, 1994.

2. SCE letter from Walter C. Marsh to the NRC Document Control Desk, Certification of Permanently Defueled Status, dated March 8, 1993.

3. NRC letter to SCE, Issuance of Amendment for San Onofre Nuclear Generating Station Unit 1, dated October 23, 1992 (Possession Only License (POL)

4. NRC letter to SCE, Issuance of Amendment No. 155 to Facility Operating License No. DPR-13 San Onofre Nuclear Generating Station Unit 1, Permanently Defueled Technical Specifications, dated December 28, 1993

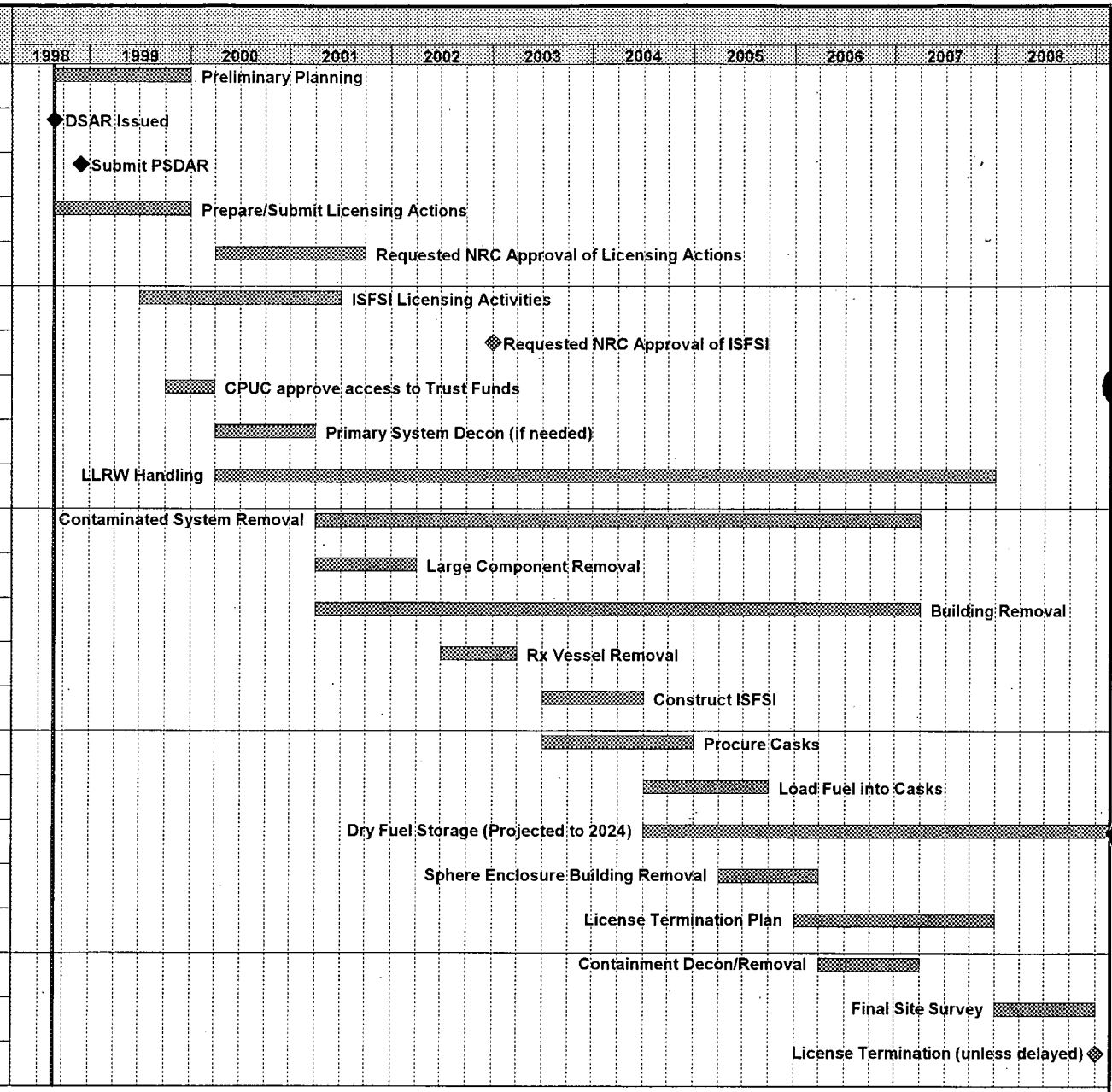
5. Decommissioning Cost Analysis for the San Onofre Nuclear Generating Station Unit 1, TLG Services, March, 1998.

6. USNRC NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," August, 1988.

7. US Atomic Energy Commission, "Final Environmental Statement Related to Operation of San Onofre Nuclear Generating Station Unit 1," October, 1973.

8. USNRC to SCE, Environmental Assessment for the San Onofre Unit 1 Full-Term Operating License," September 16, 1991.

Activity ID	Activity Description
10	Preliminary Planning
20	DSAR Issued
30	Submit PSDAR
40	Prepare/Submit Licensing Actions
50	Requested NRC Approval of Licensing Actions
60	ISFSI Licensing Activities
70	Requested NRC Approval of ISFSI
80	CPUC approve access to Trust Funds
90	Primary System Decon (if needed)
100	LLRW Handling
110	Contaminated System Removal
120	Large Component Removal
130	Building Removal
140	Rx Vessel Removal
150	Construct ISFSI
160	Procure Casks
170	Load Fuel into Casks
180	Dry Fuel Storage (Projected to 2024)
190	Sphere Enclosure Building Removal
200	License Termination Plan
210	Containment Decon/Removal
220	Final Site Survey
230	License Termination (unless delayed)



Project Start	01SEP98
Project Finish	31DEC24
Data Date	01SEP98
Run Date	10DEC98

Early Bar
Progress Bar
Critical Activity

Attachment 1
Southern California Edison
SONGS 1 Decommissioning Project