ATTACHMENT 1 1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

The Draft EIR will evaluate the environmental effects of a proposed Project involving removal of the vertical terminal structures and manhole risers, and the installation of permanent mammal barriers at each resulting opening, on the San Onofre Nuclear Generating Station (SONGS) Unit 1 offshore intake and discharge conduits. The following section describes the need for the project, what it intends to accomplish, and a summary of the activities proposed to achieve those goals. A description of the project location is also included, followed by the anticipated project schedule. Subsequent sections describe potential alternatives to the proposed project, potential environmental impacts that are proposed for analysis in the EIR, and the criteria that will be utilized to develop mitigation measures necessary to reduce those impacts to a less-than-significant level.

1.2 PROJECT PURPOSE, NEED, AND OBJECTIVES

1.2.1 Project Purpose and Need

SONGS Unit 1 was one of the first commercial nuclear power plants in the United States. It was constructed during 1964-1967, and commenced commercial operation on January 1, 1968. The plant pumped cool ocean water into a large heat exchanger where the steam that was used to turn the turbine-generator was condensed back into a liquid phase for recirculation through the plant. The ocean water and spent steam did not contact each other. SONGS Unit 1 was permanently retired in November 1992.

The Southern California Edison Company (SCE) uses the land occupied by the SONGS Unit 1 offshore conduits under California State Lands Commission (CSLC) Lease P.R.C. 3193.1 (Lease). This Lease, which was executed during the early 1960's, would have required SCE to remove the conduits in their entirety. However, after discussions with the CSLC staff, SCE now proposes a Least Environmentally Disruptive Preferred Alternative that would remove only the vertical structures to eliminate their risk as navigation hazards, but allow the horizontal structures, which are buried an average of four feet beneath the ocean floor, to remain in a safe configuration that would prevent entry by humans and other large mammals, and continue as a habitat for marine flora and fauna. Upon completion of this project, SCE will enter into a Lease Termination Agreement with the CSLC, which will provide for termination of the existing Lease and SCE's ongoing responsibility for any portion of the structures that are abandoned in place.

1.2.2 Project Objectives

The objectives of the proposed Project are to: 1) remove the vertical structures to eliminate their risk as navigation hazards; 2) allow the horizontal structures, which are buried an average of four feet beneath the ocean floor, to remain in a safe configuration that would prevent entry by humans and other large mammals and continue as a habitat for ocean flora and fauna and to eventually backfill with seabed material; 3) install a "plug" of lean concrete

grout between the mean lower low water boundary and the tsunami gates located inland from the seawall to preserve the integrity of the existing beach and seawall; and 4) execute a Lease Termination Agreement with the CSLC, which will provide for termination of the existing Lease and SCE's continued responsibility for any portion of the structures that are abandoned in place upon completion of this project.

1.3 SETTING

1.3.1 Geographic Setting

The SONGS Unit 1 site is located in Southern California approximately 60 miles south of Los Angeles, 50 miles north of San Diego, and 5 miles south of downtown San Clemente (see Figure 1-1). The nearshore site is located on an 11-acre parcel occupied by SCE under an Easement Agreement with the U.S. Department of the Navy. Lease P.R.C. 3193.1 is a 100-foot wide parcel that extends southwest from the mean high water level southwest of the SONGS Unit 1 site to approximately 3,300 feet offshore (see Figure 1-2). The SONGS Unit 1 circulating intake and discharge conduits are constructed of 12-foot inside diameter steel-reinforced concrete pipe. They extend horizontally from the onshore plant site approximately 3,200 feet (intake) and 2,600 feet (discharge) below the ocean floor. The offshore portion of each conduit is buried beneath the ocean bottom and is covered with approximately four feet of sand to approximate the local ocean bottom profile.

(see attached)

Figure 1-1. Vicinity within a 5-mile radius of the SONGS site.

(see attached)

Figure 1-2. Layout of SONGS Units 1, 2, and 3 Intake and Discharge Conduits.

1.3.2 Historical Setting

Commercial electric power plants have been constructed near the Pacific Ocean in California for many decades due to the close proximity to its large volume of water. These power plants used oil and/or natural gas to heat water into the steam that drove their turbine-generators, and ocean water to condense the used steam back into a liquid phase for reuse in the plant. The steam water used in these power plants was self-contained, and did not mix with the ocean water.

San Onofre Unit 1 was the first commercial nuclear power plant to be constructed in California. On September 24, 1964, the CSLC issued Lease P.R.C. 3193.1 to SCE. Under this Lease, SCE was authorized to install offshore intake and discharge conduits to support the

operation of the SONGS Unit 1 plant, which was then under construction. SONGS Unit 1 operated commercially from January 1, 1968 to November 30, 1992.

1.3.3 Structure Description

The SONGS Unit 1 ocean water intake and discharge conduits extend horizontally from the onshore plant site approximately 3,200 feet (intake) and 2,600 feet (discharge) below the ocean floor southwest of the SONGS Unit 1 site. The offshore portion of each conduit is buried beneath the ocean bottom and is covered with approximately four feet of sand to approximate the local ocean bottom profile.

A terminal structure is constructed at the west end of both the intake and discharge conduits. The terminal structures rest on separate foundations located approximately 30 feet beneath the ocean bottom and are surrounded by 4 feet of rock cover at the ocean floor. A 1-foot thick velocity cap rests on 8 columns above the top of the intake structure. The intake terminal structure rises vertically to approximately 15.5 feet above the ocean floor. Its outside horizontal dimensions are 20 by 27.5 feet. The discharge conduit terminal structure rises vertically to approximately 9 feet above the ocean floor.

The northeast boundary of the property is along the shoreline southwest of the SONGS Unit 1 site at the mean high water level.

1.4 PROJECT COMPONENTS

1.4.1 Terminal Structure Removal

Figure 1-3 shows a typical offshore underwater diamond wire cutting configuration being operated from a floating barge/platform.

(see attached)

Figure 1-3. Typical offshore diamond wire cutting configuration.

1.4.2 Manhole Riser Removal

Figure 1-4 shows a typical removal of manhole vertical risers involving excavation and diver assist.

(see attached)

Figure 1-4. Typical removal of manhole vertical risers.

1.4.3 Solid Waste Disposition

The components removed from both the terminal structures and the manholes will be set on the deck of the materials barge, secured for transport, and returned to port. The major concrete components on deck resulting from the terminal structure dismantlement will consist of eight rings plus one velocity cap; additionally, there are nine manhole risers from the nearshore operations. The total cargo load on the barge deck consists of approximately 600 tons of terminal structure components and approximately 60 tons of manhole risers.

1.4.4 Unloading of the Materials Barge & Recycle Operations

With the deck load sitting on dry ground, a hydraulic backhoe nominally rated at 2½ to 3 cubic yard (CY) capacity with a hoe ram tool and a concrete "pulverizer" will proceed to reduce the concrete to rubble for transport to a commercial recycler. The maximum size for efficiently hauling in ten wheeler trailer dump trucks is approximately "12 inch minus" (i.e., all material passes a 12" screen size opening) which tends to match the crusher at the recycling facility. The 660 Tons of concrete will bulk out to around 450 CY of material for hauling to the recycler. At a payload of 10 CY per truckload, the result is around 45 roundtrips between the contractor's yard and the recycling facility over a one-way distance projected to be approximately fifty (50) miles.

The derrick will be able to unload the materials barge in a single day. The hydraulic backhoe will require another four weeks to reduce the concrete to "12 inch minus" material suitable for hauling. A front-end loader of 3 to 5 CY capacity will likely be used to load the trailer trucks. Once loaded and trimmed, the payload will be covered with a tarpaulin for highway travel to the recycler. Both the hydraulic backhoe and the front-end loader are diesel powered and approximately 200 to 250 HP. While the backhoe will be working continuously to produce the rubble, the front-end loader will likely only be working intermittently (25 to 50% of the time) concurrently with the backhoe. Dust generated from both the backhoe operation and the loadout of rubble into the trailer dumps will be controlled by water out of the contractor's yard water supply.

1.5 PROJECT SCHEDULE

It is anticipated that overall activities involving construction, demolition, removal and recycling of materials will last for approximately three to four months starting in mid-2005.

2.0 ALTERNATIVES ANALYSIS

In accordance with Section 15126.6 of the State CEQA Guidelines (California Governor's Office of Planning and Research 2001), an EIR must "describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most the basic objectives of the Project, but would avoid or substantially lessen any of the

significant effects of the Project, and evaluate the comparative merits of the alternatives." The State CEQA Guidelines also require that a No Project Alternative be evaluated, and that under specific circumstances, an environmentally superior alternative be designated from among the remaining alternatives.

2.1 ALTERNATIVES PROPOSED FOR CONSIDERATION

This section includes a description of alternatives and provides a comparative analysis of the potential impacts from the alternatives to those identified for the proposed Project.

2.1.1 Complete Removal of Onshore Structures, Offshore Conduits, and Terminal Structures

This alternative would excavate, remove, and dispose of all structures, foundations, and other materials associated with the SONGS Unit 1 intake and discharge conduits, consistent with Paragraph 14 of Lease P.R.C. 3193.1, as currently amended.[1] Due to the shallow nearshore water depths, practical considerations would require this alternative to be divided into two major activities, onshore work and offshore work.

Onshore work would use a crawler crane or truck crane working off of a 300-foot trestle to approximately 8-10 feet of water depth. A temporary access roadway and pedestrian walkway would be installed parallel to the SONGS Unit 1 seawall to maintain public access. A sheet-pile cofferdam would be installed along the north and south perimeters of the conduits to reduce post-excavation erosion. A clamshell bucket would be used to excavate to the bottom of the conduits, an estimated 15,000 CY of excavated material would be sidecast to the immediate north side of the trestle. The exposed pipe segments would be cable-rigged and then lifted straight upward by the crane. Approximately fifty 16-foot pipe segments, each weighing about fifty tons would be removed. Each segment would be transported along the trestle to the beach and transported by truck for recycling or disposal. After de-mobilization, excavated seabed material would be redistributed into the excavated area through wave and current action.

To preserve the integrity of the existing beach and seawall, stop logs would be installed near the mean lower low water level and a "plug" of lean concrete grout would be installed between the mean lower low water boundary and the tsunami gates located inland from the seawall.

[1] PRC 3193.1 Paragraph 14 states, "That the following specifically enumerated and described structures, buildings, pipe lines, machinery and facilities placed or erected by the Lessee or existing and located upon said demised property shall become and remain the property of the State upon expiration or earlier termination of this agreement. All other structures, buildings, pipe lines, machinery and facilities placed or erected by Lessee or existing and located on said demised premises shall be salvaged and removed by Lessee, at Lessee's sole expense and risk, within ninety (90) days after the expiration of the period of this agreement or prior to any sooner termination of this agreement; and Lessee in so doing shall restore said demised premises as nearly as possible to the condition existing prior to the erection or placing of the structures, buildings, pipe lines, machinery and facilities so removed."

Offshore work would use 250-350 ton crane barge working from the offshore extreme toward the beach. After the barge was properly anchored, the intake and discharge terminal structures would be removed. Divers would break the connections between the velocity caps and their support columns, and the riser ring sections. The velocity caps, columns, and ring sections down to the seabed level would be crane-lifted onto a material barge. Excavation around the remainder of the terminal structures would be performed with clamshell buckets, sidecasting the riprap and soft seabed materials to the north.

After removal and disposal of the terminal structures, the crane barge would alternately excavate during the night shift, and lift out conduit sections during the day shift, moving progressively toward the shore. Excavated materials would be sidecast to the north. Removed conduit sections would be placed on the material barge, and then transported onshore for recycling or disposal. Approximately 120,000 CY of seabed material would be excavated and 30,000 CY of conduit material would be removed.

The applicant believes that this alternative is not feasible because it could result in a significant disturbance to the seafloor, harm to surfgrass and other marine flora, and loss of habitat for mollusks and other marine infauna.

2.1.2 Remove Nearshore Conduits

This alternative is essentially the same work scope as the Onshore Work described in Section 2.1.1 above. It would remove the conduits from the seawall to a distance of approximately 300 feet offshore. One sub-alternative would remove all vertical structures consistent with the proposed Project. Another sub-alternative would allow all vertical structures to remain in place. To preserve the integrity of the existing beach and seawall, stop logs would be installed near the mean lower low water level and a “plug” of lean concrete grout would be installed between the mean lower low water boundary and the tsunami gates located inland from the seawall.

2.1.3 Crush Conduits and Remove Terminal Structures

The Onshore Work portion of this alternative would be identical to the Onshore Work described in Section 2.1.1 above until the excavation around nearshore conduit sections was completed. Then, instead of removing the conduit sections, the crawler crane working off the trestle would employ a drop chisel-shaft to crush the conduits in place, reducing them to rubble. Backfill of seabed material into the excavated trench would occur naturally, burying the concrete rubble.

The Offshore Work portion of this alternative would use a crane barge to excavate the seabed material and riprap around the intake and discharge vertical risers, and then remove them down to the tops of the conduits. After these structures were removed, the barge crane would crush the remaining conduits and manhole risers, working from the offshore extreme toward the beach.

To preserve the integrity of the existing beach and seawall, stop logs would be installed near the mean lower low water level and a “plug” of lean concrete grout would be installed

between the mean lower low water boundary and the tsunami gates located inland from the seawall.

2.1.4 No Project Alternative

Under the No Project Alternative, the existing conduits and terminal structures would be allowed to continue to exist in their current state. The vertical risers of the terminal structures, which protrude approximately 16 feet above the ocean floor, would remain indefinitely as potential navigation hazards.

3.0 POTENTIAL ENVIRONMENTAL EFFECTS

The proposed disposition (full or partial removal) of SONGS Unit 1 offshore intake and discharge conduits could result in environmental effects in a number of areas as follows:

Potentially Significant Impacts:

- Air Quality. Short-term emissions from barge and related support vessels will be calculated using established emission factors. Emissions calculations for the proposed project activities will be conducted in accordance with the requirements of the San Diego County Air Pollution Control District. The project will be assessed in regard to short-term impacts to local air quality. Project activities involving the Port of Long Beach/Los Angeles will be analyzed in accordance with requirements of the South Coast Air Quality Management District.

- Commercial and Recreational Fishing The Project may affect commercial and recreational fisheries and fishery operations, including, but not limited to, during de-construction and longer-term interference with fishing activities (with accompanying potential loss of catch), due to modification of fishing grounds.

- Cultural Resources. This section of the EIR will evaluate the potential impacts of the project on paleontological, archeological, historic and or ethnographic resources. Presently, it is not anticipated that the revised project would result in such impacts due to the lack of such resources within the affected area and the nature of disturbance that would be associated with the revised project.

- Geology and Soils. A discussion of the surrounding surface and subsurface geologic conditions, currents, sediment movements and earthquake hazards will be provided. The proposed removal of the underwater structures and debris may adversely impact nearshore and beach.

- Marine Biological Resources. The Project may affect marine biological resources. The proposed underwater work area will be characterized for habitats in the project region and for the existence of State and federal candidate or listed species, California Department of Fish and Game (CDFG) species of concern, and potential habitats. The

potential exists for direct and indirect effects on sensitive species and habitats, such as those that may result from disturbance to hard-bottom areas.

- Marine Water Quality. Short-term increases in suspended sediment and associated effects on water quality perameters in the project area and down current may result during structure and debris removal, and construction operations. Additionally, potential releases of hydrocarbons to the marine environment from equipment used may occur during these operations. Such effects will be discussed and the potential for degradation of water quality in the area evaluated, including potential to affect turbidity and cause benthic disruption.

- Marine Vessel Traffic. The Project may affect marine vessel traffic. Project activities have the potential to cause short-term vessel interference with commercial and recreational vessel navigation.

- Biological Resources. Biological impact issues associated with the proposed project activities include, acoustic impacts to marine mammals and fish associated with use of construction equipment, and hardbottom impacts due to anchoring of the barge and associated support vessels. An assessment of the adequacy of proposed marine wildlife contingency plans will be addressed. An evaluation of impacts to hard bottom habitat will be conducted. An analysis on the quantity of disturbed bottom sediments will also be conducted to determine the potential for any short-term impacts resulting from increased suspended sediments.

- Noise. Potential noise impacts to any sensitive receptors (including marine mammals) from the use of marine vessels and equipment will be evaluated. Noise associated with on-shore deposition of demolition materials will not be evaluated as these materials will be disposed of at an existing facility permitted to process such materials. Ambient noise readings will be taken along the shoreline at the project area as well as at certain surrounding sensitive land uses if such uses are identified. Noise modeling will be conducted (if necessary) to determine the potential changes in noise levels at surrounding sensitive receptors and compared to relevant thresholds of significance to determine the project's effects on the noise environment.

- Transportation/Circulation. Vessel access to the project site is assumed to be from the Ports of Long Beach/Los Angeles. Project activities are likely to result in increased vessel and vehicle traffic to and from the project site and surrounding area. The analysis will focus on identification of vessel and traffic safety issues during equipment transportation to the site. The potential impact of on-shore access (if any) of equipment and construction personnel in the vicinity of the construction site will be addressed. In addition, impacts of vessel movements on commercial fishing operations will be addressed.

- Hazards. The proposed project has the potential to release hydrocarbons into the marine environment from the project related vessels. The EIR will review the adequacy of the proposed procedures to handle and transport hydrocarbons. A project specific oil spill response plan will be evaluated.

- Recreation. The proposed project is located in an area of active and passive recreational activities. Due to the nature of the proposed operations, short-term

restrictions on recreation activities will be required to protect the public from project activities. The EIR will assess these current recreational activities in the area and determine if mitigation measures are required to reduce impacts to these activities.

- Environmental Justice. The proposed project may have the potential to cause disproportionate effects on minority and/or low-income populations within the project impact area. Such populations may include, but not be limited to, those in the local fishing industry.

No Impact/Less Than Significant Impacts:

Based on preliminary review, CSLC staff has determined that the Project would have a less than significant impact or no impact on the CEQA issue areas identified below. The primary reasons for these preliminary determinations are as follows:

- Aesthetics. The Project installation activities will be short term and will not involve significant above ground features, which would affect scenic resources or degrade the existing visual character of the site surroundings. No light or glare is anticipated which would adversely affect day or nighttime views in the area.

- Mineral Resources. The Project does not preclude or involve significant extraction and removal of material that may be deemed to be a locally important mineral resource of value to the region and residents of the State.

- Population and Housing. The Project is not anticipated to affect the long-term quality or rate of growth of population and housing in the region or short-term demand for new, temporary housing for construction workers. The project is located within or adjacent to existing urban areas which contain existing residential infrastructure for proposed construction workers.

- Public Services. No additional public services are anticipated as a result of the Project.