MPC&D 03-088

July 31, 2003

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Docket No. 50-312
Rancho Seco Nuclear Station
License No. DPR-54

RANCHO SECO POST SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT, AMENDMENT 4

Attention: John Hickman

Attached is Amendment 4 to the Rancho Seco Post Shutdown Decommissioning Activities Report (PSDAR). PSDAR Amendment 4 is an update to reflect that we now plan to store Class B and C radioactive waste onsite until a suitable disposal facility becomes available. We may also proceed with a partial site release for the portions of the site not needed for the storage of this waste.

PSDAR Amendment 4 replaces PSDAR Amendment 3 in its entirety. Members of your staff requiring additional information or clarification may contact Bob Jones at (916) 732-4843.

Sincerely,

Steve Redeker
Manager, Plant Closure and Decommissioning

cc: NRC, Region IV, Arlington, Texas
Rancho Seco

Post Shutdown Decommissioning Activities Report

Amendment 4
## TABLE OF CONTENTS

1.0 INTRODUCTION  
   2

2.0 SITE DESCRIPTION  
   4
   2.1 TOPOGRAPHY  
   4
   2.2 HYDROLOGY  
   5
   2.3 CLIMATOLOGY  
   5
   2.4 PLANT DESCRIPTION  
   5

3.0 OVERVIEW OF DECOMMISSIONING ACTIVITIES  
   9
   3.1 INITIAL DECOMMISSIONING ALTERNATIVE  
   9
   3.2 DECOMMISSIONING ACTIVITIES  
   9
   3.3 FORECAST DECOMMISSIONING SCHEDULE  
   12
   3.4 FINAL SITE SURVEY PLAN  
   14
   3.5 DECOMMISSIONING COST ESTIMATE  
   15
   3.6 AMOUNT OF AVAILABLE FUNDS  
   15
   3.7 PROGRAMS  
   16

4.0 ENVIRONMENTAL REVIEW  
   18

5.0 REFERENCES  
   20
1.0 Introduction

In accordance with the results of a public referendum on June 6, 1989, the Sacramento Municipal Utility District (SMUD) decided to permanently shut down the Rancho Seco Nuclear Generating Station. Accordingly, on August 29, 1989, SMUD notified the U.S. Nuclear Regulatory Commission (NRC) of its intent to seek amendments to the Rancho Seco operating license to decommission the facility. The Commission acknowledged the notification on November 27, 1989 [Ref. 1].

On March 20, 1995, the NRC issued Rancho Seco's Decommissioning Order. The Order authorized SMUD to decommission Rancho Seco in accordance with the Decommissioning Plan, submitted to the NRC in May 1991 [Ref. 2]. The Decommissioning Plan described SMUD's intention to place Rancho Seco into safe-storage for the remainder of its originally licensed operating life, in 2008. After safe-storage, SMUD would begin decontamination and dismantlement activities, resulting in the termination of Rancho Seco's 10 CFR 50 license. Deferring decontamination and dismantlement activities until 2008, would allow SMUD additional time to accumulate funds sufficient to complete decommissioning.

In 1996, the NRC amended its regulations for decommissioning nuclear power reactors. The new regulations provide licensees with simplicity and flexibility in implementing the decommissioning process. A major change from past regulations was that the NRC no longer required licensees to have an approved decommissioning plan before performing major decommissioning activities. Licensees can now conduct major decommissioning activities under 10 CFR 50.59.

In March 1997, SMUD submitted its Post Shutdown Decommissioning Activities Report (PSDAR), in accordance with 10 CFR 50.82. The PSDAR superseded the original Decommissioning Plan, and provided the information required in 10 CFR 50.82.

On January 9, 1997, the SMUD Board of Directors approved an “incremental decommissioning” project for Rancho Seco. Incremental decommissioning began in early-1997, and was expected to last through 1999. Incremental decommissioning involved performing some decommissioning activities earlier than 2008, as described in the originally approved Decommissioning Plan. In accordance with 10 CFR 50.82, SMUD provided written notification to the NRC [Ref. 3] regarding SMUD's intent to begin incremental decommissioning. SMUD used the decommissioning funds accumulated to-date to accomplish incremental decommissioning.

On July 1, 1999, the SMUD Board of Directors voted to continue the decommissioning process at Rancho Seco until termination of the 10 CFR 50 license, by 2008. However, based upon the
lack of suitable waste disposal options, we now intend to store Class B and C radioactive waste in our Interim Onsite Storage Building until a suitable disposal facility becomes available.


SMUD maintains sufficient staff to meet NRC regulatory requirements. The current estimated cost to decommissioning Rancho Seco is $518.6 million (2002 dollars).