



**SMUD**

SACRAMENTO MUNICIPAL UTILITY DISTRICT  
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MPC&D 06-035

April 12, 2006

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

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

**RANCHO SECO LICENSE AMENDMENT REQUEST AND LICENSE  
TERMINATION PLAN, REVISION 0**

Attention: John Hickman

In accordance with 10 CFR 50.82(a)(9) and 10 CFR 50.90, we are submitting Proposed Amendment No. 199 (PA-199) to the Rancho Seco Operating License (DPR-54) and the License Termination Plan (LTP) for Rancho Seco Nuclear Generating Station. The LTP demonstrates that the remaining decommissioning activities will be performed in accordance with the regulations in 10 CFR Part 50, will not be inimical to the common defense and security or to the health and safety of the public, and will not have a significant adverse effect on the quality of the environment.

Upon NRC approval of the LTP, the amendment to the operating license adds a license condition that establishes the criteria for determining when changes to the LTP require prior NRC approval.

As discussed in Attachment 2, we have concluded that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c). Accordingly, a finding of "no significant hazards consideration" is justified.

Attachment 1 provides the insertion/removal instructions for the affected pages. Attachment 2 provides a description of the proposed change, the No Significant Hazards Consideration, and an environmental impact consideration determination. Attachment 3

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provides a copy of the revised affected pages to the operating license. Included after the proposed license amendment is the Rancho Seco License Termination Plan.

In accordance with 10 CFR 50.91(b)(1), we have informed the Radiological Health Branch of the California State Department of Health Services of the proposed amendment by sending them a copy of this submittal package.

You or members of your staff with questions requiring additional information or clarification may contact Robert Jones at (916) 732-4843.

Sincerely,



Michael J. Bua  
Manager, Plant Closure and Decommissioning (Acting)<sup>1</sup>

Attachments (4)

Cc w/ attachments: B. S. Mallett, NRC, Region IV  
Director, Radiological Health Branch, California State Department  
of Health Services

*Please see  
attached  
Steve Redeker  
NOTARY PUBLIC*

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<sup>1</sup> In accordance with the process outlined in SMUD procedure SDP 3.3, Michael J. Bua is authorized to sign for Steve Redeker in his absence (See SMUD Letter MPC&D 06-002).

# ALL-PURPOSE ACKNOWLEDGMENT

State of CALIFORNIA }  
County of AMADOR }

On 12 APRIL 2006, before me, Stormy D Kirk <sup>Notary Public</sup> (name, title of officer),  
personally appeared MICHAEL J. BUA

personally known to me – OR –  proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Stormy D. Kirk  
Signature

**Attachment 1**

***Removal and Insertion Instructions for  
Proposed License Amendment No. 199 to the Rancho Seco Operating License***

**Remove Operating License**

Page 4

**Insert Operating License**

Pages 4 and 5

## **Attachment 2**

### ***Description of the Proposed Change, No Significant Hazards Consideration, and Environmental Impact Considerations***

#### **Background**

The Sacramento Municipal Utility District (SMUD) shut down Rancho Seco Nuclear Generating Station permanently on June 7, 1989, after approximately 15 years of operation. On August 29, 1989, SMUD formally informed the NRC that the plant was shut down permanently. On May 20, 1991, SMUD submitted the Rancho Seco decommissioning plan and on March 20, 1995, the NRC issued an Order approving the decommissioning plan and authorizing the decommissioning of Rancho Seco.

SMUD began actively decommissioning Rancho Seco in February 1997, and completed the transfer of all of the spent nuclear fuel to the 10 CFR Part 72 licensed Independent Spent Fuel Storage Installation (ISFSI) on August 21, 2002. Accordingly, the only quality-related structures, systems, or components (SSCs) at the Rancho Seco 10 CFR Part 50 licensed site are the radioactive sources used to calibrate the instrumentation used to measure radioactivity in gaseous and liquid effluents.

Plant dismantlement is substantially complete and most of the SSCs that *were* safety-related or important-to-safety have been removed from the plant and shipped for disposal. The pressurizer was shipped to EnergySolutions<sup>1</sup> for disposal in April 2004, one steam generator was shipped to EnergySolutions in December 2004, and the second steam generator was shipped to EnergySolutions in April 2005. Reactor vessel internals segmentation is in progress and activities in preparation for the reactor vessel segmentation are underway. Mobilization of the reactor vessel segmentation contractor is scheduled to begin in mid-2006.

#### ***Reason for the Proposed Change***

NRC Regulation 10 CFR 50.82(a)(9) requires that a licensee submit an application for the termination of the 10 CFR Part 50 license. The application for termination of the license must be accompanied or preceded by a License Termination Plan (LTP) to be submitted for NRC

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<sup>1</sup> EnergySolutions was formerly Envirocare of Utah

approval. The LTP is a supplement to the Rancho Seco Defueled Safety Analysis Report (DSAR).

We are submitting Proposed Amendment No. 199 (PA-199) to satisfy the requirements of 10 CFR 50.82(a)(10) for approval of the License Termination Plan by License amendment. SMUD is not submitting its application for termination of the Rancho Seco license at this time.

### **Description of the Proposed License Change**

As discussed in LTP Section 1.6, SMUD may make changes to the LTP, without prior NRC approval, under the provisions in 10 CFR 50.59, 10 CFR 50.82(a)(6), and 10 CFR 50.82(a)(7). PA-199 amends the Rancho Seco operating license to include the criteria for when changes to the LTP require prior NRC approval.

PA-199 adds new License Condition 2.C(4), as follows:

*(4) License Termination Plan (LTP)*

*NRC License Amendment No. 133 approves the License Termination Plan.*

*In addition to the criteria specified in 10 CFR 50.59 and 10 CFR 50.82(a)(6), a change to the LTP requires prior NRC approval if the change:*

- (a) Increases the probability of making a Type I decision error above the level stated in the LTP*
- (b) Increases the radionuclide-specific derived concentration guideline levels (DCGL) and related minimum detectable concentrations*
- (c) Increases the radioactivity level, relative to the applicable DCGL, at which investigation occurs*
- (d) Changes the statistical test applied other than the Sign Test or Wilcoxon Rank Sum Test.*

*Re-classification of survey areas from a less to a more restrictive classification (e.g., from a Class 3 to a Class 2 area) may be done without prior NRC notification; however, re-classification to a less restrictive*

*classification (e.g., Class 1 to Class 2 area) will require NRC notification at least 14 days prior to implementation.*

### **No Significant Hazards Consideration**

SMUD has reviewed the proposed license amendment against each of the criteria in 10 CFR 50.92 and has concluded that the amendment request involves no significant hazards consideration. The following provides SMUD's analysis of the issue of no significant hazards consideration:

**1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

No. The proposed change is administrative. The change allows for the approval of the LTP and provides the criteria for when changes to the LTP require prior NRC approval. This change does not affect possible initiating events for accidents previously evaluated or alter the configuration or operation of the facility. Safety limits, limiting safety system settings, and limiting control systems are no longer applicable to Rancho Seco in the permanently defueled mode, and are therefore not relevant.

The proposed change does not affect the boundaries used to evaluate compliance with liquid or gaseous effluent limits, and has no impact on plant operations. Therefore, the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

**2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?**

No. As described above, the proposed change is administrative and provides the criteria for when changes to the LTP require prior NRC approval. The safety analysis for the facility remains complete and accurate. There are no physical changes to the facility as a result of the proposed amendment and the plant conditions for which the design basis accidents have been evaluated are still valid.

The operating procedures and emergency procedures are not affected. The proposed changes do not affect the emergency planning zone, the boundaries used to evaluate compliance with liquid or gaseous effluent limits, and have no impact on plant operations. Consequently, no new failure modes are introduced as the result of the

proposed changes. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

**3. Does the proposed license amendment involve a significant reduction in a margin of safety?**

No. As described above, the proposed changes are administrative. There are no changes to the design or operation of the facility. The proposed changes do not affect the emergency planning zone, the boundaries used to evaluate compliance with liquid or gaseous effluent limits, and have no impact on plant operations. Accordingly, neither the design basis nor the accident assumptions in the Defueled Safety Analysis Report (DSAR), nor the Technical Specification Bases are affected. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

## **Environmental Impact Consideration**

This amendment request satisfies the criteria specified in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirements to perform an environmental assessment or to prepare an environmental impact statement. The criteria of 10 CFR 51.22(c)(9) are addressed as follows:

**(i) The amendment involves no significant hazards consideration.**

As discussed in the No Significant Hazards Consideration section above, the proposed license amendment does not involve a significant hazards consideration.

**(ii) There is no significant change in the types or significant increase in the amounts of effluents that may be released offsite.**

The proposed license amendment is consistent with the plant activities described in the Rancho Seco Post Shutdown Decommissioning Activities Report (PSDAR). The environmental impacts associated with radiation dose to members of the public related to decommissioning activities and site release for unrestricted use were considered in NUREG-0586 "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," NUREG-0586 Supplement 1, and NUREG-1496 "Generic Environmental Impact Statement in Support of the Rulemaking on Radiological Criteria for License Termination."

In conjunction with the submittal of the original Rancho Seco Decommissioning Plan, the District submitted "Supplement to Rancho Seco Environmental Report - Post Operating License Stage." This environmental report compared Rancho Seco decommissioning attributes to those identified in NUREG-0586.

NUREG-0586 provides a generic environmental assessment of decommissioning a reference nuclear facility. When the NRC issued the Decommissioning Rule in 1988, and based on the findings in NUREG-0586, it concluded a generic finding of "no significant (environmental) impact." The NRC further concluded that no additional Environmental Impact Statement (EIS) would need to be prepared in connection with decommissioning a particular nuclear site unless the impacts of a particular plant have site-specific considerations significantly different from those studied generically.

The "Supplement to Rancho Seco Environmental Report - Post Operating License Stage" concluded that all effluents, both radiological and non-radiological, will remain within regulatory limits as specified in applicable control documents and approvals throughout the decommissioning process. LTP Chapter 8 provides an updated assessment of the environmental effects of decommissioning Rancho Seco. The updated assessment also

determined that the environmental effects from decommissioning Rancho Seco are minimal and there are no adverse effects outside the bounds of NUREG-0586 or the associated Supplement 1. The conclusions contained in the "Supplement to Rancho Seco Environmental Report - Post Operating License Stage" are still valid.

Based on the above, there will not be a significant change in the types or increase in the amounts of effluents released offsite for the remaining decommissioning activities.

**(iii) There is no significant increase in individual or cumulative occupational exposure.**

As stated above, the District submitted "Supplement to Rancho Seco Environmental Report - Post Operating License Stage" in conjunction with the submittal of the original Rancho Seco Decommissioning Plan. This environmental report compared Rancho Seco decommissioning attributes to those identified in NUREG-0586.

The "Supplement to Rancho Seco Environmental Report - Post Operating License Stage" contained the following conclusions:

- The District will maintain annual occupational radiation exposure to individuals as low as reasonably achievable (ALARA). These exposures will be below historical levels for the operating phase of the plant.
- The District expects to maintain exposure to onsite workers and the offsite public as a result of waste transportation well below the levels projected by NUREG-0586.

LTP Chapter 8 provides an updated assessment of the environmental effects of decommissioning Rancho Seco. The updated assessment also determined that the environmental effects from decommissioning Rancho Seco are minimal and there are no adverse effects outside the bounds of NUREG-0586 or the associated Supplement 1. Additionally, the conclusions contained in the "Supplement to Rancho Seco Environmental Report - Post Operating License Stage" are still valid.

Based on the above, there is no significant increase in individual or cumulative occupational exposure due to decommissioning Rancho Seco.

**Attachment 3**

***Revised Facility Operating License***

(3) Confirmatory Order

The movement of nuclear fuel into the Reactor Building is prohibited without prior NRC approval.

(Amendment 132 - 09/27/05)

(4) License Termination Plan (LTP)

NRC License Amendment No. 133 approves the License Termination Plan.

In addition to the criteria specified in 10 CFR 50.59 and 10 CFR 50.82(a)(6), a change to the LTP requires prior NRC approval if the change:

- (a) Increases the probability of making a Type I decision error above the level stated in the LTP
- (b) Increases the radionuclide-specific derived concentration guideline levels (DCGL) and related minimum detectable concentrations
- (c) Increases the radioactivity level, relative to the applicable DCGL, at which investigation occurs
- (d) Changes the statistical test applied other than the Sign Test or Wilcoxon Rank Sum Test.

Re-classification of survey areas from a less to a more restrictive classification (e.g., from a Class 3 to a Class 2 area) may be done without prior NRC notification; however, re-classification to a less restrictive classification (e.g., Class 1 to Class 2 area) will require NRC notification at least 14 days prior to implementation.

- D. This license is subject to the following additional condition for the protection of the environment:

If harmful effects or evidence of irreversible damage are detected by the monitoring programs included in the Rancho Seco Quality Manual, the Applicant will provide an analysis of the problem and a proposed course of action to alleviate the problem.

- E. This license is effective as of the date of issuance and shall expire at midnight, October 11, 2008.

FOR THE ATOMIC ENERGY COMMISSION

**/s/ ROGER BOYD for**

**A. Giambusso, Deputy Director  
for Reactor Projects  
Directorate of Licensing**

Date of Issuance:  
August 16, 1974

Attachment:  
Appendix A - Technical Specifications

**(Amendment 120 - 10/13/92)**

**Orders for Modification of License**

Deleted

**(Amendment 132 - 09/27/05)**

**Attachment 4**

***License Termination Plan***