SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT ☐ 6201 S Street, P.O. Box 15830, Sacramento CA 95852-1830, (916) 452-3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

MPC&D 96-082

May 29, 1996

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 ANNUAL REPORT

Attention: Seymour Weiss

The District hereby submits the Rancho Seco Annual Report in accordance with Rancho Seco Permanently Defueled Technical Specifications (PDTS) D6.9.4 and D6.9.6b, and 10 CFR 50.59(b)(2). The enclosed Rancho Seco Annual Report contains (1) shutdown statistics, (2) a narrative summary of shutdown experience, (3) Environmental Report information, and (4) tabulations of facility changes, tests, and experiments required pursuant to 10 CFR 50.59(b).

The enclosed report covers the period May 7, 1995, through May 6, 1996. The NRC approved the PDTS in April 1992, and District implemented the PDTS on May 7, 1992. Prior to May 1992, Rancho Seco submitted monthly reports in accordance with the Operating Plant Technical Specifications.

Members of your staff requiring additional information or clarification may contact Jerry Delezenski at (916) 452-3211, extension 4914.

Sincerely,

Steve J. Redeker
Manager
Plant Closure & Decommissioning

Enclosure

cc w/Encl: L. J. Callan, NRC, Arlington, Texas
R. Dudley, NRC, Rockville

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ENCLOSURE

RANCHO SECO ANNUAL REPORT

Shutdown Statistics:

The District provides the following shutdown statistics:

1. Rancho Seco permanently shut down nuclear power operations on June 7, 1989.

2. The Rancho Seco reactor has been defueled since December 8, 1989.

3. The Rancho Seco Spent Fuel Pool (SFP) contains 493 spent fuel assemblies and is licensed for 1080 spent fuel assemblies.

4. The NRC amended the Rancho Seco operating license to Possession-Only status on March 17, 1992.

5. Rancho Seco has been in the Permanently Defueled Mode (PDM) during the entire reporting period (May 7, 1995, through May 6, 1996).

6. The NRC issued Rancho Seco a Decommissioning Order on March 20, 1995. The Order (1) authorized the District to decommissioning Rancho Seco and (2) accepted the Rancho Seco Decommissioning Funding Plan.

7. The District removed and refilled the Component Cooling Water (CCW) System water to reduce the radioactivity in the CCW. The CCW system is a support system for the Spent Fuel Cooling system. During the 13 day duration of this project, the Spent Fuel Pool (SFP) water temperature increased from 80 °F to 104 °F. After Rancho Seco placed CCW back in service, the SFP temperature lowered to 77 °F.

8. Following the CCW system outage, the SFP leak rate through the leak chase system increased from its approximately steady state rate of about 0.05 gallons per day to a high of 3.8 gallons per hour (gph). The leak rate then slowly decreased to approximately 1.4 gph by the end of the reporting period. The District believes the change in leak rate is related to the change in SFP water temperature.

   The District intends to remove all fuel from the SFP in 1997, and place the fuel in dry storage at an on-site Independent Spent Fuel Storage Installation (ISFSI) licensed pursuant to 10 CFR 72. The District will drain and process the SFP water immediately following fuel removal.

9. Rancho Seco personnel initiated the spent fuel assembly inspection program to identify the fuel assemblies that meet District failed fuel criteria in preparation for the fuel off-load project. Through May 6, 1996, Rancho Seco personnel had inspected 240 of 493 spent fuel assemblies, with seven assemblies preliminarily identified as meeting the District's failed fuel criteria. The District will place failed fuel assemblies in a special failed fuel dry storage canister.

Shutdown Experience Summary:

The District provides the following shutdown experience summary.

General Plant Administrative Activities:

1. The District continues to (1) prepare Rancho Seco for eventual decommissioning and (2) pursue Independent Spent Fuel Storage Installation (ISFSI) license approval. Also, Rancho Seco continues to safely store its spent nuclear fuel in the SFP.

2. Rancho Seco had its first operational occurrence since 1991 that met the 10 CFR 50.73 Licensee Event Report criteria. A Spent Fuel Bridge operator lifted a fuel assembly two inches while a Certified Fuel Handler was not present in the Fuel Storage Building. This event violated Permanently Defueled Technical Specification D6.2.2d and placed the plant in a condition prohibited by the Technical Specifications.

Fuel Off-load Project Activities

The District performed the following fuel off-load project support activities:

1. Completed inserting control components into spent fuel assemblies in preparation for the fuel off-load project;

2. Completed modifying the old TDI emergency diesel generator buildings into the Cask Support facility in preparation for the fuel off-load project;

3. Completed the following Gantry Crane modifications and upgrade activities in support of the fuel off-load project:

   a. Replaced the control system with a new, state-of-the-art system;

   b. Replaced the hoisting rope with a new plow steel hoisting rope;

   c. Completed crane load certification testing with the bridge in the center and cantilever positions; and

   d. Performed NDE examinations of the primary load carrying elements, such as sheaves, hook, and load blocks, and recertified these elements through inspection and test;

4. Completed several Fuel Storage Building modifications necessary for the fuel off-load project; and

RANCHO SECO ANNUAL REPORT

Fuel Off-load Project Activities (Continued)

5. Upgraded, repaired, paved, and sealed the roadway that the District will use to transport its loaded fuel assembly storage cask from outside the Turbine Building to the ISFSI.

Emergency Preparedness Activities:

The District successfully completed the following emergency preparedness activities:

1. The annual Rancho Seco emergency exercise;

2. The annual emergency medical drill with the Galt Fire Department; and

3. The annual fire drill with the Herald Fire Department.

Liquid Radioactive Waste Processing Activities:

The District performed the following liquid radioactive waste processing activities:

1. Installed a temporary boiler to support liquid radioactive waste processing and;

2. Processed approximately 150,000 gallons of liquid radioactive waste through the Miscellaneous Waste Evaporator (MWE);

3. Repaired the Blender/Dryer unit, which processes MWE concentrates; and

4. Processed the MWE bottoms through the Blender/Dryer unit.

General Plant Maintenance Activities:

The Rancho Seco Maintenance Department performed the following significant maintenance activities:

1. Repaired the Fuel Storage Building area radiation monitor;

2. Repaired the 'A' normal air compressor and repaired and modified the emergency diesel air compressor;

3. Repaired the Fire Protection System CO_2 Chiller;

General Plant Maintenance Activities: (Continued)

4. Completed relief valve testing on the Component Cooling Water and Plant Cooling Water systems. These cooling water systems support the Spent Fuel Pool Cooling system;

5. Repaired the spent fuel pool liner leak detection instrument;

6. Repaired the Auxiliary Transformer #2 radiator cooling fans;

7. Repaired the condensate sump pump solenoids;

8. Repaired the Spent Fuel Bridge mast and the Fuel Storage Building overhead crane;

9. Repaired the emergency diesel fire pump;

10. Repaired the Spent Fuel Bridge grapple;

11. Replaced the seals on the Spent Fuel Cooling system demineralizer pump; and

12. Completed comprehensive corrective and preventive maintenance at the Folsom South Canal pumping station, including the overhaul of one canal pump.

General Plant Improvement/Remediation Activities:

The District performed the following significant plant improvement and remediation activities:

1. Replaced the plant liquid effluent flow meter. This modification is addressed in more detail below in the 10 CFR 50.59(b) Summary section for Design Change Package No. R95-0006;

2. Installed a new spent fuel pool (SFP) stop log and inflatable bladder seal to accommodate draining the SFP upender pit to permit maintenance of the Fuel Handling Bridge grapple;

3. Sold and removed one Motor Operated Valve from Rancho Seco under the District's asset recovery program. Only components and material that are not required to support plant operations during the Permanently Defueled Mode are eligible for the asset recovery program;

4. Completed removing and disposing of approximately 234,000 cubic feet of asbestos entrained heat transfer boards from the Rancho Seco cooling towers; and

RANCHO SECO ANNUAL REPORT

General Plant Improvement/Remediation Activities: (Continued)

5. Removed the underground vehicle diesel fuel storage tank.

Environmental Report Information:

In accordance with PDTS D6.9.6b, the District provides a copy of the new permit and certificate applications and the permit and certificate changes or additions required by government agencies for protection of the environment. During the reporting period, the District submitted one such environmental permit or certificate application to the California Department of Health Services that the District did not previously transmit to the NRC. Attached is a copy of the application for certification renewal of the Rancho Seco environmental laboratory. This application had no adverse environmental impact.

10 CFR 50.59(b) Summary:

The following is a tabulation of the facility changes, tests, and experiments that (1) occurred from May 7, 1995, through May 6, 1996, and (2) required a 10 CFR 50.59 safety evaluation. One change evaluated in accordance with 10 CFR 50.59 resulted in an Unreviewed Safety Question. This change resulted in a proposed license amendment that the District submitted to the NRC for review (see summary of Proposed License Amendment No. 192 evaluation below).

Procedure A.29, Revision 35, "Waste Water Disposal System," deleted all references to and procedure steps associated with demineralizer resin catch bags at the Retention Basins. Also, the procedure revision made several editorial and administrative changes. Since no resin remains in the Make-up and Polisher secondary plant demineralizers, the potential migration of resin to the Retention Basins is no longer a concern. No previously analyzed accidents rely on the use of resin catch bags. This change requires a change to the Defueled Safety Analysis Report (DSAR), which is a Licensing Basis Document (LBD), but did not affect any other LBD.

Procedure CAP-0002, Revision 7, "Off-site Dose Calculation Manual," changed the Radioactive Effluent Release Report reporting frequency from a semi-annual to an annual report in accordance with NRC approved License Amendment No. 122. The District made this license amendment request in accordance with revised NRC regulation 10 CFR 50.36a(a)(2). Also, this Off-site Dose Calculation Manual (ODCM) change made several editorial corrections and updated the ODCM to reflect the 1994 Land Use Census and the most recent historical liquid source term data. The change is considered administrative in nature and has no affect on plant equipment and no potential impact on any previously analyzed accidents. This change is a change to the ODCM, which is a Licensing Basis Document (LBD), but did not affect any other LBD.

10 CFR 50.59(b) Summary: (Continued)

Procedure CAP-0002, Revision 8, "Off-site Dose Calculation Manual," made several changes to the ODCM in response to installation of the new plant effluent flow meter instrumentation (FIRQ-95108). This ODCM change consisted of several editorial corrections and administrative improvements, implemented License Amendment No. 122, and included the new 10 CFR 20 definitions for Member of the Public, Occupational Dose, and Public Dose. The change is considered administrative in nature and has no affect on plant equipment and no potential impact on any previously analyzed accidents. This change is a change to the ODCM, which is a LBD, but did not affect any other LBD.

Rancho Seco Decommissioning Fire Protection Plan, Revision 3, implemented fire protection program requirements specified in the Rancho Seco Decommissioning Order. Also, the change updated and made several editorial corrections to the fire protection plan, deleted yard hose houses requirements, and allowed removal of auxiliary boiler detectors from service when the auxiliary boilers are removed from service.

Fire Protection System impairments have no affect on the types of accidents and equipment malfunctions analyzed in the Defueled Safety Analysis Report. This change is a change to the Rancho Seco Decommissioning Fire Protection Plan (DFPP), which is a LBD, but did not affect any other LBD.

TLG Decommissioning Evaluation for Rancho Seco, December 1995, provides the financial information and technical considerations necessary to assess the viability of accelerating the decommissioning process at Rancho Seco (i.e., choosing the DECON decommissioning option instead of the SAFSTOR option). If the District chooses the accelerated decommissioning option, the Rancho Seco Decommissioning Plan (RSDP) would require extensive revision. The TLG evaluation would be used to revise the RSDP, which is a LBD. Selecting early decommissioning (i.e., the DECON option) would not affect any previously analyzed accidents or malfunctions and would not affect any other LBD.

Rancho Seco Decommissioning Plan Section 6.1, "Technical Specifications," changed the statement on page 6-2 that addressed fuel handling operations limitations when the Fuel Storage Building area radiation monitor is out of service. The revised Rancho Seco Decommissioning Plan (RSDP) statement refers to the fuel handling operations limitations addressed in the Permanently Defueled Technical Specifications. This change is administrative in nature and has no safety significance. This change is a change to the RSDP, which is a LBD, but did not affect any other LBD.

10 CFR 50.59(b) Summary: (Continued)

Design Change Package No. R94-0007, Revision 0, "Fuel Storage Building Wash-Down Structure," adds a transfer cask washdown structure in the Fuel Storage Building (FSB) in preparation for the fuel off-load project. The washdown structure will be used to decontaminate the fuel transfer cask after the cask if filled and removed from the spent fuel pool. The washdown structure is passive and is designed to withstand the drop of a fuel transfer cask. This modification will require several changes to the Defueled Safety Analysis Report (DSAR), which is a LBD, but will not affect any other LBD.

Design Change Package No. R95-0003, Revision 0, "Turbine Building Gantry Crane Refurbishment," upgrades and modifies the Gantry Crane control system to safely handle a loaded fuel transfer cask (24 fuel assemblies) in preparation for the fuel off-load project. The maximum dose consequence from a hypothetical cask drop event is 224 mRem. Based on the Gantry Crane mechanical and control system design and administrative safety features supporting the design, this Gantry Crane modification provides assurance that:

1. The Gantry Crane will safely handle a fully loaded transfer cask;

2. A cask drop event will not occur; and

3. The postulated cask drop event would not result in a significant hazard and is not a public health and safety concern.

This modification to the Gantry Crane will require several changes to the DSAR and one change to the RSDP, but will not affect any other LBD.

Design Change Package No. R95-0003, Revision 1, "Turbine Building Gantry Crane Refurbishment," changes the Gantry Crane control system modification to (1) require a programmable limit switch resolution of ± 1/4" instead of ± 1/8", and (2) include an administrative requirement to have a functional check of the Gantry Crane hook 79'-6" upper programmable limit switch no more than 12 hours prior to lifting a cask. These changes to the Gantry Crane refurbishment do not affect the analysis and conclusions summarized above for Design Change Package R95-0003, Revision 0. The Revision 1 design changes will require changes to the DSAR, which is a LBD, but will not affect any other LBD.

10 CFR 50.59(b) Summary: (Continued)

Design Change Package No. R95-0006, Revision 0, "New Plant Effluent Flow Rate Meter," replaces the existing float type liquid effluent flow meter instrumentation with a new bubbler type flow meter. The old instrument was obsolete, and replacement parts were not available. The new flow meter performs the same function as the old flow meter. The plant effluent flow meter is not associated with any analyzed accidents. The plant effluent liquid flow meter equipment identification number will change from FR-95108 to FIRQ-95108. This modification will require a change to the DSAR, which is a LBD, but will not require a change to any other LBD.

Rancho Seco Emergency Plan Section 8, Revision 7, "Maintaining Emergency Preparedness," incorporated NRC comments regarding the Emergency Communications System Test and Annual Medical Drill changes that the District made in Revision 6 to Rancho Seco Emergency Plan (RSEP) Section 8. The Emergency Communications System Test is required once each calendar quarter and UC Davis Medical Center is contractually required to provide radiological health support, perform annual radiological response training, and conduct or participate in annual drills. This change directly affects the RSEP, which is a LBD, but did not affect any other LBD.

Rancho Seco Emergency Plan Revision (All Sections) modifies some 10 CFR 50 emergency preparedness program requirements and incorporates the 10 CFR 72 emergency planning requirements necessary to support the off-load of spent fuel assemblies from the spent fuel pool, transport of the assemblies in a transfer cask to the Rancho Seco ISFSI, and storage of fuel at the ISFSI.

Also, the District streamlined the RSEP and made several editorial improvements. The Evacuation actions were combined with a Dismissal. Site personnel are evacuated during a Dismissal when safety or radiological conditions warrant. The number of Chem/Rad Decommissioning Technicians required to respond to an on-site emergency within two hours was reduced from three to one. The District also changed the required RSEP review frequency from annually to every two years to coincide with the Emergency Plan Implementing Procedure review frequency requirement. Finally, the District removed the protective action guideline that addressed having Sacramento County evacuate the Rancho Seco Park. Maximum potential dose at the Rancho Seco Park is well below the threshold value for protective actions. This change directly affects the RSEP, which is a LBD, but did not affect any other LBD.

10 CFR 50.59(b) Summary: (Continued)

Proposed License Amendment No. 187, Revision 1, "New 10 CFR 20 Implementation Changes," requests NRC approval of proposed changes to the Rancho Seco Permanently Defueled Technical Specifications (PDTS) consistent with the new, revised 10 CFR 20 regulations. These PDTS changes are editorial and administrative in nature, implement NRC reviewer comments, and are not required for implementation of the new 10 CFR 20 regulations. This proposed license amendment directly affects the PDTS, which is a LBD, but does not affect any other LBD.

Proposed License Amendment No. 190, Revision 0, "Change to Qualified Reviewer Qualification Requirements & Environmental Reports Reporting Requirement," revises PDTS D6.5.3d and D6.9.6b to (1) change the qualification requirements for the personnel who perform the PDTS D6.5.3 reviews from ANSI N18.1-1971, Section 4.4, "Professional - Technical," to ANSI N18.1-1971, Section 4, "Qualifications," and (2) change the Environmental Reports reporting requirement timing from "when the required changes are submitted to the concerned agency for approval" to "annually with the Annual Report."

The ANSI N18.1-1971, Section 4.4, qualification requirement was intended to apply to Rancho Seco personnel when the District operated the Rancho Seco reactor. It is now unnecessary to limit the individuals who perform the PDTS D6.5.3 reviews to only those who meet the ANSI N18.1-1971, Section 4.4, qualification requirements because:

1. There is very small dose consequences associated with credible accidents during the Permanently Defueled Mode;

2. All fuel is stored in the spent fuel pool; and

3. The District is decommissioning Rancho Seco and has taken significant steps towards storing the fuel in a 10 CFR 72 Independent Spent Fuel Storage Installation (ISFSI).

Changing the Environmental Reports reporting requirement timing has no affect on plant safety. The District will continue to submit the required reports. Submitting the required reports annually to the NRC instead of when each change or addition to environmental permits and certificates are submitted to the concerned agencies for approval will provide relief from an administrative burden and permit more effective implementation of the PDTS D6.9.6b Environmental Reports requirement. This proposed license amendment directly affects the PDTS, which is a LBD, but does not affect any other LBD.

10 CFR 50.59(b) Summary: (Continued)

Proposed License Amendment No. 190, Revision 1, "Change to Qualified Reviewer Qualification Requirements & Environmental Reports Reporting Requirement," revises the Proposed License Amendment No. 190 (PA-190), Revision 0, changes to the qualification requirements for personnel who perform the PDTS D6.5.3d reviews from Section 4, "Qualifications," to Section 4, "Qualifications," except Sections 4.5.2, "Technicians," and 4.5.3, "Repairmen." The same analysis and conclusions apply to PA-190, Revision 1 as summarized above for PA-190, Revision 0.

Proposed License Amendment No. 191, Revision 0, "Load Handling Limit Exception to Support Fuel Off-load Project," revises Permanently Defueled Technical Specification (PDTS) D3/4.3, "Fuel Storage Building Load Handling Limits," to allow specific loads that weigh more than one fuel assembly, control component, and associated handling tool (i.e., the current design basis load) to be handled over irradiated fuel assemblies in the spent fuel pool during fuel off-load activities. The PDTS change would permit handling the Dry Shielded Canister (DSC) top shield plug and cask lifting yoke and yoke extension over irradiated fuel assemblies that are in a DSC that is in a transfer cask in the spent fuel pool.

The cask lifting yoke and yoke extension are designated as important to safety in the Independent Spent Fuel Storage Installation (ISFSI) Safety Analysis Report and are designed in accordance with ANSI N14.6-1986, "Special Lifting Devices for Shipping Containers Weighing 10,000 Pounds (4500 Kg) or More," to be able to lift the transfer cask and DSC when fully loaded (125 tons). The DSC top shield plug weighs less than 7,000 pounds and will be suspended from the cask lifting yoke and yoke extension with four independent cables. Each cable is designed to ANSI N14.6-1986 and each cable is capable of supporting the weight of the DSC top shield plug. This proposed license amendment directly affects the PDTS and will require a change to the DSAR, which is a LBD, but does not affect any other LBD.

Proposed License Amendment No. 192, Revision 0, "Updated Cask Drop Analysis," seeks to change the current licensing design basis for Rancho Seco to support the fuel off-load project. Proposed License Amendment No. 192 (PA-192) updates the existing design basis cask drop event to address the fuel transfer and storage system the District will actually use. Also, the updated cask drop event establishes the bounding, design basis event for Rancho Seco operation during the Permanently Defueled Mode. The maximum hypothetical dose consequence associated with a cask drop event is 224 mRem. PA-192 is supported by the Gantry Crane mechanical and control system design and administrative safety features which provide assurance that:

10 CFR 50.59(b) Summary: (Continued)

1. The Gantry Crane will safely handle a fully loaded transfer cask;

2. A cask drop event will not occur; and

3. If a cask drop event should occur, it would not result in a significant hazard or a public health and safety concern.

PA-192 will require several changes to the DSAR and the RSEP and one change to the RSDP, but does not affect any other LBD.

Rancho Seco Quality Manual, Section XVIII, Revision 7, "Quality Assurance Program," added the Quality audit schedule previously specified in PDTS D6.5.4, "Audits," in accordance with License Amendment No. 122. License Amendment No. 122 removed the PDTS D6.5.4 audit frequencies and required placement of the audit frequencies in the Rancho Seco Quality Manual (RSQM). The RSQM change is administrative in nature and has no affect on plant equipment and no potential impact on any previously analyzed accidents. The change directly affected the Rancho Seco Quality Manual, which is a LBD, and did not affect any other LBD.

Radiological Environmental Monitoring Program Manual, Revision 8, added (1) the PDTS requirements for Radiological Environmental Monitoring Program (REMP) Manual changes, (2) an ISFSI monitoring program, (3) incorporated several NRC Inspection Report 95-03 recommendations, (4) changed reference to the Radioactive Effluent Release Report from a semi-annual to an annual report per NRC License Amendment No. 122, and (5) made several editorial improvements. The changes provide assurance the Rancho Seco REMP continues to represent an environmental sampling program that meets the intent of applicable regulations and regulatory guidance and provides for accurate assessment of the radiological environment in and around the Rancho Seco site. This change directly affected the REMP Manual, which is a LBD, and did not affect any other LBD.

ATTACHMENT

ENVIRONMENTAL REPORT INFORMATION

For

5/7/95 - 5/6/96 ANNUAL REPORT

SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT □ P. O. Box 15830, Sacramento CA 95852-1830, (916) 452-3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

MPC&D 95-152

October 5, 1995

George C. Kulasingam, Ph.D.
California Department of Health Services
Environmental Laboratory Accreditation Program
2151 Berkeley Way, Annex 240
Berkeley, CA 94704-1011

RENEWAL APPLICATION FOR THE CERTIFICATION OF THE RANCHO SECO ENVIRONMENTAL LABORATORY

Dear Dr. Kulasingam:

In accordance with Health and Safety Code Section 1014(a), the District submits the enclosed Rancho Seco laboratory certification renewal application. This application includes:

1. An index to the Rancho Seco quality assurance procedures that achieve the quality assurance objectives outlined in the instructions for Part E of the application.

2. A check for the laboratory certification renewal fee ($1802).

An oversight in the system used to track the due dates of the District's obligations resulted in exceeding the deadline for submittal of this application (10/2/95). On October 4, 1995, Mr. Nelson Lan of your staff was contacted and informed of the situation. Mr. Lan instructed that the application be filled as soon as possible and to note the oversight in the application.

Members of your staff requiring additional information or clarification may contact Mr. Tim Shaw at (916) 452-3211, extension 4144.

Sincerely,

Steve Redeker

Steve Redeker
Manager, Plant Closure and Decommissioning

Enclosures

APPLICATION FOR ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP) CERTIFICATION

JANUARY 3, 1995

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP)
2151 BERKELEY WAY, ANNEX 2
BERKELEY, CA 94704-1011
TELEPHONE: (510) 540-2800

State of California
Health and Welfare Agency

Department of Health Services
Environmental Laboratory
Accreditation Program (ELAP)
2151 Berkeley Way, Annex 2
Berkeley, CA 94704-1011

APPLICATION FOR ENVIRONMENTAL LABORATORY CERTIFICATION

This application is for laboratories seeking certification or registration under the California Environmental Laboratory Improvement Act (Chapter 7.5 commencing with Section 1010, Part 2, Division 1 of the California Health And Safety Code).

TRADE SECRETS NOTIFICATION

Unless specifically designated as such, information contained in this application or submitted with it, is not considered a trade secret and may be released without review by the Department in accordance with the Public Records Act. Personnel information in Part B will not be disclosed outside the Department of Health Services, except as in compliance with the Information Practices Act of 1977.

PART A
LABORATORY INFORMATION

1. Name of Laboratory: Rancho Seco Nuclear Generating Station Laboratory

2. Division: Chemistry

3. Laboratory Location: (Actual Location)
   Street: 14440 Twin Cities RD.
   City: Herald State: California Zip Code: 95638-979

4. Telephone: (916) 452-3211 Ext 4144
5. FAX No.: ext.4249
6. California County: Sacramento
7. Water Quality Control Board Region No.: 5

8. Mail Address: (for US Mail delivery)
   Street: 14440 Twin Cities RD.
   City: Herald State: California Zip Code: 95638-9799

9. Sample Address (for Parcel delivery)
   Street: 14440 Twin Cities RD.
   City: Herald State: California Zip Code: 95638-979

For Environmental Laboratory Accreditation Program Use Only

Laboratory Index Name: _____

Reference No.: _____ Date Received _____ Amount Received _____

PART A
LABORATORY INFORMATION (continued)

10. Laboratory Director: Steve Nicolls | Title: Radiological Health Supervisor | Telephone: (916)452-3211 EXT. 4292

11. Contact Person: Timothy R. Shaw | Title: Chemistry Specialist | Telephone: (916)452-3211 EXT. 4144

12. Owner: Sacramento Municipal Utility District

6201 S Street

P.O. Box 15830 Sacramento, CA. 95852-1830

13. This application is for:

[ ] New certification, or [ ] New registration, or

[X] Renewal of current Environmental Laboratory Accreditation Program certification or registration;

Certificate Number: 1681 Expiration Date: December 31, 1995

14. Claim of Exemption from Fees:

[ ] California County or City Public Health Laboratory establish under, Health and Safety Code Section 1000

[ ] Government Reference Laboratory as defined in, Health and Safety Code Section 1017 (e) & (g)

15. Is this laboratory a Mobile Laboratory or an applicant for Field of Testing 23?

If No, proceed to Part B.

If Yes, please complete the following:

Vehicle Make:_____ Model:_____ Vehicle ID No.: _____

Vehicle License No.: _____ State of Registration:_____

Certificate Number: _____ Expiration Date: _____

PRIVACY NOTIFICATION

The information in Part B (Personnel Qualifications) of this application is requested by the State Department of Health Services in compliance with the Information Practices Act of 1977. The authority for maintaining the requested information is the California Code of Regulations, Title 22, Sections 64485 and 67605. This information is mandatory. Failure to provide all the necessary information may result in automatic denial of this application for certification or registration of an environmental laboratory. The purpose of the personnel information is to verify the personnel qualifications required for the laboratory director, principal analyst(s) or signatory person(s). This information will not be disclosed outside the Department of Health Services except as in compliance with the Information Practices Act of 1977. For more information or access to your records, contact the Department of Health Services, Environmental Laboratory Accreditation Program (ELAP), 2151 Berkeley Way, Annex 2, Berkeley, CA 94704. Telephone (510) 540-2800.

PART B
PERSONNEL QUALIFICATIONS
LABORATORY DIRECTOR

1. Name (Last, First, Middle Initial): Nicolls, Steven A.

2. Title: Radiological Health Supervisor

3. Education:

Month/Year From - To	College/University	Major	Degree or Number of Units	Year Completed
9/88 - 10/93	University of New York	Nuclear Technology	Bachelor Science	1993

4. Technical Training:

Month/Year From - To	Technical Trade or Service School	Subject	Certificate	Year Completed
1/71 - 4/71	U.S. Navy Eng Lab Technician	Chemistry		1971

5. Relevant Experience: (Last 5 years)

Month/Year From - To	Name and Address of Employer	Job Title
4/79 - Present	SMUD/Rancho Seco Nuclear Station 14440 Twin Cities Road - MS 244 Herald, California 95638	Chemistry/Health Physics Supervisor

6. Briefly describe your experience relevant to this application on a separate sheet of paper.
See attached.

7. Certificate:

[ ] California/Nevada American Water Works Association (Cal/Nev AWWA)

NA Grade: _____ Expiration date: _____

[ ] California Water Pollution Control Association (CWPCA)

NA Grade: _____ Expiration date: _____

Part B
Personnel Qualifications
Laboratory Director

Item 6

Experience relevant to this application:

Technician and Supervisor for laboratory work involving Chemistry and Radiochemistry for the US Navy Nuclear Power program and the Sacramento Municipal Utility District (Rancho Seco Nuclear Station) for a combined total of 25 years. This experience involves a variety of chemistry qualifications, skills, and knowledge including:

- Waste water treatment chemistry
- Drinking water chemistry
- Secondary steam plant chemistry and
- Reactor Plant Radiochemistry

Recent assignments include qualifications for supervisory oversight for the onsite and offsite radiological effluents monitoring programs. These programs monitor the various environmental elements involved in pathway monitoring and analysis to ensure federal and state regulations are met for airborne and liquid releases form the Rancho Seco Site.

PART B
PERSONNEL QUALIFICATIONS
PRINCIPAL ANALYST

Please make photocopies of this form and provide the information for additional personnel.

1. Name (Last, First, Middle Initial): Shaw, Timothy R.

2. Title: Chemistry Specialist
   [xx] Supervisor of Section Non Rad. Effluents [ ] Operates Device
   Effective Date: September 5, 1991

3. Laboratory Name: Rancho Seco Laboratory Certificate No: 1681

4. Education:

Month/Year From - To	College/University	Major	Degree or Number of Units	Year Completed

5. Technical Training:

Month/Year From - To	Technical Trade or Service School	Subject	Certificate	Year Completed
4/84 - 9/85	USN Navy Nuclear Power School	Physics, Chem. Lab. Principles		1987
3/92 - 6/92	Cal. State University Sacramento	Operation of Waste Water Treatment Plts		1992

6. Relevant Experience: (Last 5 years)

Month/Year From - To	Name and Address of Employer	Job Title
7/88 - 9/91	SMUD Rancho Seco 14440 Twin Cities RD Herald, CA. 95638	Radiation Protection Technician
9/91 - present	SMUD Rancho Seco	Chemistry Specialist
9/83 - 12/87	USN USS Enterprise CVN-65 FPO San Francisco	Engineering Laboratory Technician

7. Briefly describe your experience relevant to this application on a separate sheet of paper.

8. Certificate:
   [ ] California/Nevada American Water Works Association (Cal/Nev AWWA)
   Grade: _____ Expiration date: _____
   [x] California Water Pollution Control Association (CWPCA)
   Grade: II Expiration date: 12-31-94

9. [ ] Designated as signatory person for laboratory reports.

7. Briefly describe your experience relevant to this application on a separate sheet of paper.

9/91 to present	**Chemistry Specialist Non Radiological Effluent** Responsible for monitoring and reporting of non radiological discharge, drinking water, and permit compliance at Rancho Seco Nuclear Generating Station.
7/88 to 9/91	**Radiation Protection Technician** Conduct routine radiological surveys, obtain various chemical and radiochemical samples to be analyzed by Rancho Seco Laboratory, and perform introductory chemical analysis at Rancho Seco Nuclear Generating Station.
9/85 to 12/87	**Engineering Laboratory Technician** Perform various chemical and Radiochemical analysis while station on board U.S. Navy Nuclear Aircraft Carrier.

PART C

FIELDS OF TESTING

The list of Fields of Testing is presented below. Select the Field(s) of Testing for which certification is requested. When selecting Fields of Testing, note the following guidelines:

Reporting data to demonstrate compliance for purposes of the Federal or California Safe Drinking Water Act (Section 4010 et seq,. Health and Safety Code) requires certification in any or all of the following Fields of Testing: 1, 2, 3, 4, 5, or 6;

Reporting data to demonstrate compliance with provisions of the Hazardous Waste Control Act (Section 25100 et seq., Health and Safety Code) requires certification in any or all of the following Fields of Testing: 6, 8, 9, 10, 11, 12, 13, or 14;

Reporting data on the microbiological quality of shellfish and shellfish-growing waters requires certification in Fields of Testing 1 and 7;

Reporting data to demonstrate compliance under the National Pollutant Discharge Elimination System or a State Discharge Permit (Sections 13176 and 13262(b), Health and Safety Code) requires certification or registration in any or all of the following Fields of Testing: 1, 6, 8, 16, 17, 18, or 19;

Reporting data on pesticide residue analyses to the Food and Drug Branch, Department of Health Services requires certification in any or all of the following Fields of Testing 20, 21 and 22.

Check the appropriate box(es) for those fields of testing for which your laboratory requests certification or registration. Information about methods, analytes and equipment will be requested later in the certification process.

Fields of Testing	Description
[x]	1. Microbiology of Drinking Water and Wastewater
[ ]	2. Inorganic Chemistry and Physical Properties of Drinking Water Excluding Toxic Chemical Elements
[ ]	3. Analysis of Toxic Chemical Elements in Drinking Water
[ ]	4. Organic Chemistry of Drinking Water (measurement by GC/MS combination)
[ ]	5. Organic Chemistry of Drinking Water (excluding measurements by GC/MS combination)
[ ]	6. Radiochemistry
[ ]	7. Shellfish Sanitation
[ ]	8. Aquatic Toxicity Bioassays
[ ]	9. Physical Properties Testing of Hazardous Waste
[ ]	10. Inorganic Chemistry and Toxic Chemical Elements of Hazardous Waste
[ ]	11. Extraction Tests of Hazardous Waste
[ ]	12. Organic Chemistry of Hazardous Waste (measurement by GC/MS combination)
[ ]	13. Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS combination)
[ ]	14. Bulk Asbestos Analysis
[ ]	15. Substances Regulated under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) and Not Included in Other Listed Groups
[x]	16. Wastewater Inorganic Chemistry, Nutrients and Demand
[ ]	17. Toxic Chemical Elements in Wastewater
[ ]	18. Organic Chemistry of Wastewater (measurements by GC/MS combination)
[ ]	19. Organic Chemistry of Wastewater (excluding measurements by GC/MS combination)
[ ]	20. Inorganic Chemistry and Toxic Chemical Elements of Pesticide Residues in Food
[ ]	21. Organic Chemistry of Pesticide Residues in Food (measurement by GC/MS combination)
[ ]	22. Organic Chemistry of Pesticide Residues in Food (excluding measurement by GC/MS combination)
[ ]	23. Operation of a Mobile Laboratory in any ONE of the above fields of testing; specify the Field of Testing _____. Please complete the information requested in Part A, item 15 for the Mobile Laboratory to be considered for Field of Testing 23.

PART D
INVOICE FOR FEES
1995

[X] Not Exempt From Fees [ ] Exempt from fees as evidenced by Part A, Item 14 Health & Safety Code Sections 1017 (e) & (g)

The Basic Annual Fee is $948.00 and the per Field of Testing fee is $427.00 for 1995.

A. $427.00 X total number of Fields of Testing checked on page 6 = $427.00 X 2 = $854.00. Enter in equation below.

B. Total fee = $948.00 + A = $948.00 + $854.00 = $1802.00 Please enclose this amount. Make the check payable to the California D.H.S., Environmental Laboratory Accreditation Program.

NOTE: The cost of travel to visit a laboratory located outside the State of California will be determined and billed after completion of the site visit, Section 1017(b), Health and Safety Code.

PART E
QUALITY ASSURANCE MANUAL

Please submit your laboratory's manual for the in-house quality assurance program with this application.

PART F
OTHER PERTINENT INFORMATION (OPTIONAL)

PART G
APPROVAL FOR SUBMISSION

TYPE OR PRINT: Name of Laboratory: Rancho Seco Nuclear Generating Station Laboratory

Signature of Owner or Owner's Agent: Steve Redeker

Print or type Name of Owner or Owner's Agent: Steve Redeker Date:

Print or type Title of Owner or Owner's Agent: Manager, Plant Decommissioning and Closure

Return the completed application and the appropriate fee to:

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP)
2151 BERKELEY WAY, ANNEX 2
BERKELEY, CA 94704-1011

PART E

The following is a list of procedures and manuals used in conjunction by the Rancho Seco Laboratory to fulfill quality assurance requirements. These procedures collectively achieve the quality assurance objectives outlined in the instructions for completion of the laboratory certification application. These procedures are currently on file with the Department of Health Service ELAP.

INDEX

1. Organization and Responsibility

   • Chemistry Administrative Procedure (CAP)-0001, Chemistry Area Conduct of Operations

2. Quality assurance objectives and organization and responsibility

   • CAP-0003 Chemistry Quality Control Program

3. Sampling Procedures

   • Chemistry Procedure (CHM)-1005 Sample Collection

4. Sample Custody

   • Due to the small scope of operation, a sample custody procedure is not applicable for Rancho Seco Laboratory. A unique sample number is assigned to each sample.

5. Calibration Procedures and Frequency

   • CAP-0004 Chemistry Preventive Maintenance Program

6. Individual analysis procedures (contain Data Reduction and Reporting guidelines)

   •CHM-2106 Biochemical Oxygen Demand
   •CHM-2111 Chlorine
   •CHM-2112 Coliform
   •CHM-2113 Conductivity
   •CHM-2115 Grease and Oil
   •CHM-2118 Hydrazine
   •CHM-2128 Dissolved Oxygen
   •CHM-2130 Total Solids Suspended and Dissolved

7. Internal Quality Control Checks

   • CAP-0003 Chemistry Quality Control Program

8. Performance and System Audits

- Rancho Seco Quality Manual (RSQM) section XVIII Audits
- Rancho Seco Administrative Procedure (RSAP)-1306 Audits and Surveillance

9. Preventive Maintenance

- CAP-0004 Chemistry Preventive Maintenance Program

10. Assessment of Precision and Accuracy

- Individual analysis procedures contain guidelines for precision and accuracy

11. Corrective Actions

- CAP-0006 Chemistry Frequencies Ranges and Limits

12. Quality Assurance Reports

- CAP-0003 Chemistry Quality Control Program
- RSAP-1306 Audits and Surveillance

PART F
OTHER PERTINENT INFORMATION

- Participates annually in the US EPA DMR-QA Lab Performance Evaluation

- Subscribes from Environmental Resource Associates (ERA) Quality Control Standard Service