



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 1, 2022

Dr. Prasant Mohapatra  
Vice Chancellor for Research  
Department of Computer Science  
University of California  
Davis, CA 95616

SUBJECT: REGENTS OF THE UNIVERSITY OF CALIFORNIA - REGULATORY AUDIT  
RE: LICENSE RENEWAL APPLICATION FOR THE UNIVERSITY OF  
CALIFORNIA - DAVIS/MCCLELLAN NUCLEAR RESEARCH CENTER  
TRAINING, RESEARCH, ISOTOPE, GENERAL ATOMICS NUCLEAR  
REACTOR (EPID NO. L-2020-NFR-0002)

Dear Dr. Mohapatra:

By letter dated June 11, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18179A501), the Regents of the University of California (licensee) submitted a license renewal application (LRA) for a 20-year renewal of the Class 104c Facility Operating License No. R 130, Docket No. 50 607, for the University of California – Davis (UCD) McClellan Nuclear Research Center Training, Research, Isotope, General Atomics nuclear reactor. By letter dated July 6, 2020 (ADAMS Accession No. ML20188A368), the licensee updated its LRA to reflect its decision to reduce the licensed thermal operating power level from 2.3 megawatt thermal (MWt) to 1.0 MWt, and to eliminate pulsing capability and irradiation of explosive materials in the reactor tank.

The U.S. Nuclear Regulatory Commission (NRC) staff will conduct a virtual regulatory audit beginning on Tuesday, February 1, 2022, and continuing as necessary. The intent of the audit is to gain a better understanding of the proposed technical specifications, and the environmental report information. The audit may include review of documentation and discussions with UCD staff and management. The enclosed audit plan provides additional details of the objective and scope of the audit.

To improve the efficiency of the virtual audit, UCD and NRC staff discussed, during a teleconference conducted on November 17, 2020, the implementation of an online reference document portal, established by UCD staff, that would allow the NRC staff to have read-only access to the documents and other reference materials cited in the LRA. The NRC staff requests UCD to re-establish the portal for this audit period.

At the completion of the audit, the NRC staff will provide an audit summary. The summary will include a description of any information identified during the audit that will need to be docketed to supplement the LRA and allow the NRC staff to continue its review.

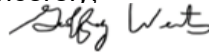
We appreciate your support in providing the requested documentation and access to the online reference document portal that will assist in an efficiently conducted audit.

P. Mohapatra

-2-

If you have any questions regarding the NRC staff's audit, please contact me at 301-415-0893, or by electronic mail at [Geoffrey.Wertz@nrc.gov](mailto:Geoffrey.Wertz@nrc.gov).

Sincerely,



Signed by Wertz, Geoffrey  
on 02/01/22

Geoffrey Wertz, Project Manager  
Non-Power Production and Utilization Facility  
Licensing Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Docket No. 50-607  
License No. R-130

Enclosure:  
As stated

cc: See next page

University of California-Davis/McClellan

Docket No. 50-607

cc:

David Reap, Radiation Safety Officer  
5335 Price Avenue, Bldg. 258  
McClellan, CA 95652-2504

California Energy Commission  
1516 Ninth Street, MS-34  
Sacramento, CA 95814

Radiological Health Branch  
California Department of Public Health  
P.O. Box 997414, MS 7610  
Sacramento, CA 95899-7414

Test, Research and Training  
Reactor Newsletter  
Attention: Ms. Amber Johnson  
Dept of Materials Science and Engineering  
University of Maryland  
4418 Stadium Drive  
College Park, MD 20742-2115

Dr. Wesley D. Frey, Reactor Director  
McClellan Nuclear Research Center  
University of California, Davis  
5335 Price Avenue, Building 258  
McClellan, CA 95652-2504

SUBJECT: REGENTS OF THE UNIVERSITY OF CALIFORNIA - REGULATORY AUDIT  
RE: LICENSE RENEWAL APPLICATION FOR THE UNIVERSITY OF CALIFORNIA - DAVIS/MCCLELLAN NUCLEAR RESEARCH CENTER TRAINING, RESEARCH, ISOTOPE, GENERAL ATOMICS NUCLEAR REACTOR (EPID NO. L 2020-NFR-0002) DATED: FEBRUARY 1, 2022

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**ADAMS Accession No. ML22026A286**

**NRR-106**

<b>OFFICE</b>	NRR/DANU/PM	NRR/DANU/PM	NRR/DANU/LA	NRR/DANU/BC	NRR/DANU/PM
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<b>DATE</b>	1/26/2022	1/27/2022	1/27/2022	2/1/2022	2/1/2022

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OFFICE OF NUCLEAR REACTOR REGULATION  
REGULATORY AUDIT PLAN  
REGARDING RENEWAL OF  
FACILITY OPERATING LICENSE NO. R-130  
REGENTS OF THE UNIVERSITY OF CALIFORNIA  
UNIVERSITY OF CALIFORNIA-DAVIS MCCLELLAN NUCLEAR REACTOR  
DOCKET NO. 50-607

Background

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its review of the Regent of the University of California license renewal application (LRA) for the University of California Davis McClellan Nuclear Research Center (UCD MNRC) Training, Research, Isotope, General Atomics research reactor dated June 11, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18179A501), as supplemented by letter dated July 6, 2020 (ADAMS Accession No. ML20188A368). This regulatory audit is intended to assist the NRC staff in its review of the LRA.

Regulatory Audit Bases for Audit

The purpose of this audit is to support the NRC staff's review of the LRA requesting renewal of Facility Operating License No. R-130 for UCD MNRC reactor in accordance with the applicable regulatory requirements of Title 10 of the *Code of Federal Regulations* and applicable guidance provided in NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," Part 1, "Format and Content," and Part 2, "Standard Review Plan and Acceptance Criteria" (ADAMS Accession Nos. ML042430055 and ML042430048, respectively).

Regulatory Scope for the Audit

The NRC staff plans to conduct this virtual audit via teleconference and/or video conference with UCD staff. The NRC staff will focus primarily on the proposed UCD MNRC's technical specifications (TSs), and environmental report information. This audit will provide information necessary to continue the NRC staff's evaluation of the LRA. In addition, the audit may identify additional information that will be required to be docketed to support the basis of the licensing decision and will allow NRC staff to gain insights more efficiently on the LRA. The NRC staff will use the online reference document portal provided by UCD staff. Access to the online portal is limited to specific NRC staff (e.g., based on NRC e-mail addresses or the use of passwords which will only be assigned to NRC staff directly involved in the LRA review on a need-to-know basis), and the documents in the online portal is read-only (i.e., prevent NRC staff from saving, copying, downloading, or printing any documents). The conditions associated with the online reference document portal must be maintained throughout the review process. The NRC staff who should be granted access to the portal are those listed in the "Audit Team" section below. The NRC staff will provide a request to close the online reference document portal at the conclusion of the audit.

Enclosure

### Information Needed for Audit

UCD staff should be prepared to discuss the proposed TSs for the renewed license for the 1.0 megawatt thermal UCD MNRC research reactor. Additionally, the UCD staff should be prepared to discuss, if used, any guidance provided in NUREG-1537, Part 1, Chapter 14, "Technical Specifications," Appendix 14.1, "Format and Content of Technical Specifications for Non-Power Reactors," issued February 1996 System (ADAMS Accession No. ML042430055). Additionally, analyses used to provide the basis for the limits in the TSs should be readily available for discussion by cognizant UCD staff.

### Audit Team

The NRC staff performing this audit will be:

- Linh Tran (Senior Project Manager)
- Geoffrey Wertz (Project Manager)
- Michael Balazik (Project Manager)
- Xiaosong Yin (Project Manager)
- Robert Beaton (Nuclear Engineer)
- Adam Rau (General Engineer)
- Zachary Gran (Health Physicist)
- Richard Clement (Senior Health Physicist)
- Kevin Folk (Environmental Scientist)
- Phyllis Clark (Nuclear Engineer)

### Audit Team Logistics

The virtual audit will involve discussions commencing on Tuesday, February 1, 2022, and continuing as necessary until NRC staff have adequate understanding of proposed TSs, and other items needed to complete its review of the LRA. The audit activities will be conducted via teleconference and/or video conference, as appropriate, to support the efficient gathering of information by the NRC staff.

Given that the NRC staff previously conducted an audit from December 14, 2020, until August 31, 2021, an entrance meeting will not be necessary. It is expected that NRC staff and UCD staff will be able to interact as may be needed to communicate information requests to support LRA review activities.

### Deliverables

At the completion of the regulatory audit the NRC staff will prepare a regulatory audit summary, which will be issued by letter, within 90 days after the audit. The regulatory audit summary will include the documents reviewed, the audit activities, any request for additional information that will be issued, or other requested information needed to be docketed, as applicable.

### Audit Schedule

The NRC staff will conduct video conferences with UCD staff beginning on Tuesday, February 1, 2022, at 1:00 pm (Eastern Time), and continuing as needed.

An exit meeting will be conducted at the conclusion of the audit.