



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

March 12, 2020

Todd Houts, Director  
Environmental Health & Safety  
Co-Director, MU Emergency Coordination  
Curators of the University of Missouri - Columbia  
c/o Gary Ward Vice Chancellor of Operations  
900 East Stadium Blvd., Suite 180  
Columbia, MO 65211

SUBJECT: CURATORS OF THE UNIVERSITY OF MISSOURI - COLUMBIA, ACCEPTANCE  
REVIEW OF DECOMMISSIONING PLAN SUBMITTED IN ACCORDANCE WITH  
10 CFR 30.36(g) UNDER LICENSE NO. 24-00513-32 (MAIL CONTROL  
NUMBER 596692)

Dear Mr. Houts:

This letter is in response to your submittal of a Decommissioning Plan dated November 8, 2019, and our letter date January 6, 2020, (ML20006F926) acknowledging receipt of the Decommissioning Plan. Within our letter, we had stated that U.S. Nuclear Regulatory Commission (NRC) will perform an Acceptance Review of the submitted document prior to initiating our Technical Review.

Upon review, the NRC has determined that the following additional information is needed to complete our Acceptance Review prior to initiating our Technical Review. On February 25, 2020, the NRC and you and members of your staff and your consultants discussed this need for additional information at the Curators of the University of Missouri – Columbia campus. Below is the information requested:

1. Title 10 of the *Code of Federal Regulations* (CFR) 30.36(g)(4) states, in part, that a decommissioning plan shall include a description of the conditions of the site or separate building or outdoor area sufficient to evaluate the acceptability of the plan.

Within the Decommissioning Plan, the licensee had not provided adequate information on conditions or radiological contamination that either has or could enter the ground water system. This information is to include, but not limited to, ground water direction, flow rates, potability, soil conditions near the groundwater table, and radiological transport to potential receptors by way of groundwater flow.

2. 10 CFR 30.36(g)(4) states, in part, that a decommissioning plan shall include a description of planned decommissioning activities.

Within the Decommissioning Plan, the licensee had not provided adequate information on the waste disposal options and details to ensure waste had an appropriate location to

be properly disposed in accordance with NRC regulations. This information is to include, but not limited to, the ultimate location waste is to be disposed and regulatory process for which the waste shall be transferred under. During the site visit on February 25, 2020, the NRC had noted that limited space is available in the general area of Pickard Hall to store waste prior to shipment without potentially impacting the surrounding area. In addition to the above information, the NRC is requesting the licensee provide details on how waste is to be stored prior to transport to an authorized waste disposal site and how such storage will or will not impact the immediate area. This evaluation should include impacts from environmental factors such as wind and rain.

3. Title 10 CFR 30.36(g)(4) states, in part, that a decommissioning plan shall include a description of the planned final radiation survey.

Within the Decommissioning Plan, the licensee had not provided adequate information on its criteria to demonstrate the site could be released for unrestricted use once decommissioning was completed. This information is to include, but not limited to, soil release criteria, such as a Derived Concentration Guideline Level (DCGL), any supporting conceptual site model(s) [CSM(s)] for translating concentrations in soil/groundwater to dose, and the basis for parameter selection in the CSMs so that the NRC can make an evaluation of the CSM(s) and DCGL. Such an evaluation shall address all radionuclides of concern such as radium, thorium, and uranium.

To assist the licensee, the NRC has developed decommissioning guidance in the form of NUREG-1757 "Consolidated Decommissioning Guidance," Volumes 1, 2, and 3, which can be found on the NRC's public web site <https://www.nrc.gov/reading-rm/doc-collections/#nuregs>.

To ensure timely review of your Decommissioning Plan, please review the appropriate NRC guidance associated with the above Requests for Additional Information and provide as complete information as possible.

NRC is requesting that the information above be provided within 60 days of the date of this letter. If a response is not received within that time or the response is inadequate to initiate a Technical Review, the NRC shall consider whether additional actions are necessary.

In addition to the above information discussed during the site visit of February 25, 2020, the NRC also discussed issues concerning any technical review in the future. These included:

- Water control measures,
- Decommissioning order of work, and
- Controls for limiting exposure and contamination.

These three issues are to be considered topics and do not represent a full technical review of the Decommissioning Plan. The NRC reserves the right to request additional information at a future date. However, if you wish to address these topics, or any of the topics discussed at the meeting, at the same time as you address the previously identified information requested, it may prove to be beneficial by shortening the staff review of the decommissioning plan.

If you have any questions concerning the decommissioning process or the requirements for the decommissioning of your facility, you may contact Michael LaFranzo of the Materials Control, ISFSI, and Decommissioning Branch at 1-630-829-9865.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>. If Security-Related Information is necessary to provide an acceptable response, please mark your entire response Security Related Information in accordance with 10 CFR 2.390(d)(1), follow the instructions for withholding in 10 CFR 2.390(b)(1) and provide a redacted copy so that the NRC can release as much information to the public as possible. In accordance with 10 CFR 2.390(b)(1)(ii), the NRC is waiving the affidavit requirements for your response.

Any correspondence regarding the decommissioning of your facility should reference the control number specified below, and your license number.

Sincerely,

**/RA/**

Michael M. LaFranzo, Senior Health Physicist  
Materials Control, ISFSI, and  
Decommissioning Branch  
Division of Nuclear Materials Safety

Docket No. 030-02278  
License No. 24-00513-32  
Mail Control No. 596692

cc: Cade Register, Acting Radiation  
Safety Officer

Letter to Todd Houts from Michael LaFranzo dated March 12, 2020.

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OFFICE	RIII-DNMS	C	RIII-DNMS	C	HQ	C	HQ	C
NAME	MLaFranzo:brt		PLee		GChapman		BBolz	
DATE	3/12/2020		3/18/2020		3/11/2020		3/11/2020	
OFFICE	RIII-DNMS	C						
NAME	MKunowski							
DATE	3/18/2020							

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