



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

June 28, 2022

Dr. David M. Slaughter, President
and Reactor Administrator
Aerotest Operations, Inc.
3455 Fostoria Way
San Ramon, CA 94583

SUBJECT: AEROTEST OPERATIONS, INC.–REQUEST FOR ADDITIONAL
INFORMATION REGARDING LICENSE AMENDMENT REQUEST TO
APPROVE THE AEROTEST RADIOGRAPHY AND RESEARCH REACTOR
DECOMMISSIONING PLAN (EPID L-2021-LLN-0004)

Dear Dr. Slaughter:

By letter dated December 6, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18344A049), Aerotest Operations, Inc. (Aerotest) certified that it had permanently ceased operations of the Aerotest Radiography and Research Reactor. Therefore, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(b)(1), “Termination of License, for non-power reactor licensees,” Aerotest submitted both an application for license termination and a Decommissioning Plan (DP) by letter dated July 20, 2021 (ML21230A304), as supplemented by letter dated January 20, 2022 (ML22025A200), in the form of a license amendment request (LAR) to the U.S. Nuclear Regulatory Commission (NRC) for approval of the DP.

The NRC staff has identified additional information needed to continue its review of the LAR, as described in the enclosed request for additional information (RAI). Please provide a response to the RAI or a written request for additional time to respond, including the proposed response date and a brief description of the reason, by 30 days from the date of this letter. Following receipt of the complete response to the RAI, the NRC staff will continue its review of the LAR.

The response to the RAI must be submitted in accordance with 10 CFR 50.4, “Written communications,” and, pursuant to 10 CFR 50.30(b), “Oath or affirmation,” be executed in a signed original document under oath or affirmation. Information included in the response that you consider sensitive or proprietary, and seek to have withheld from public disclosure, must be marked in accordance with 10 CFR 2.390, “Public inspections, exemptions, requests for withholding.”

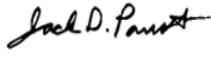
In accordance with 10 CFR 2.390 of the NRC’s “Agency Rules of Practice and Procedure,” a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC’s ADAMS. ADAMS is accessible from the NRC website at <https://www.nrc.gov/reading-rm/adams.html>.

D. Slaughter

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If you have any questions regarding the NRC staff's review or if you intend to request additional time to respond, please contact me at (301) 415-6634, or via email at Jack.Parrott@nrc.gov.

Sincerely,

 Signed by Parrott, Jack
on 06/28/22

Jack D. Parrott, Senior Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No. 50-228
License No. R-98

Enclosure:
As stated

cc: Aerotest mailing list

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

REQUEST FOR ADDITIONAL INFORMATION

REGARDING AMENDMENT FOR APPROVAL OF THE DECOMMISSIONING PLAN

FACILITY OPERATING LICENSE NO. R-98

AEROTEST OPERATIONS, INC.

AEROTEST RADIOGRAPHY AND RESEARCH REACTOR

DOCKET NO. 50-228

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its review of the Aerotest Operations, Inc. (Aerotest, the licensee) license amendment request (LAR), dated July 20, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21230A304)), as supplemented by letter dated January 20, 2022 (ML22025A200), to approve the Decommissioning Plan (DP) in support of the licensee's decision to permanently cease operation of the Aerotest Radiography and Research Reactor (ARRR). This request for additional information was developed based on the following requirements and guidance applicable to the LAR:

- The regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.9, "Completeness and accuracy of information," require that information provided to the Commission by a licensee be complete and accurate in all material respects.
- The regulations in 10 CFR 50.82(b), "Termination of license, for non-power reactor licensees" provides requirements for license termination for non-power 10 CFR Part 50 licensees.
- The regulations in 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments," provides requirements of environmental assessments for licensing actions.
- NUREG-1537, Part 2, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors, Standard Review Plan and Acceptance Criteria," Chapter 17, "Decommissioning and Possession-Only License Amendments," dated February 1996 (ML042430048), Appendix 17.1, "NRC Review of Decommissioning Plans for Non-Power Reactors," provides guidance on reviewing the format and content of non-power reactor decommissioning plans.

As a result of the Aerotest's request to amend its license, the NRC staff performed a comprehensive review of the proposed DP and identified the following request for additional information (RAI).

Application

10 CFR 51.21 states that all licensing and regulatory actions subject to this subpart require an environmental assessment except those identified in § 51.20(b) as requiring an environmental impact statement, those identified in § 51.22(c) as categorical exclusions, and those identified in § 51.22(d) as other actions not requiring environmental review.

RAI 1. Please identify if Aerotest believes this request requires an environmental assessment or qualifies for an exception under the regulations cited above, and if so, please provide the basis for that determination.

Decommissioning Organization and Responsibilities

10 CFR 50.82(b)(4)(ii) states that the proposed DP must include a description of the controls and limits on procedures and equipment to protect occupational and public health and safety.

Section 4.4 of the DP, entitled “Decommissioning Organization and Responsibilities,” states that “[t]he Aerotest President with support from the **Reactor Safeguards** [emphasis added] Committee will monitor decommissioning operations to ensure they are being performed safely and according to federal, state, and local regulatory requirements (NRC, EPA, (DOT), etc.)) and will approve of decommissioning procedures used during the decommissioning as described in this plan. Consistent with Aerotest policy, the **Radiation Safety** [emphasis added] Committee (RSC) has certain responsibilities to review and approve policies, procedures, programs and facilities pursuant to the safe use of radiological materials and radiation producing equipment. The RSC’s jurisdiction will extend to all decommissioning activities dealing with radioactive material and radiological controls.”

Figure 4-3 of the DP, entitled “ARRR Decommissioning Organization” shows where the **Reactor Safety** [emphasis added] Committee is in the overall ARRR decommissioning organization.

Section 11.0 of the DP, entitled “Changes to the Decommissioning Plan,” states that “Aerotest requests that changes to the Decommissioning Plan be allowed with local approval by the Aerotest President and the **Reactor Safeguard** [emphasis added] Committee without prior USNRC approval, unless an unreviewed safety question is involved.”

RAI 2. Are the Reactor Safeguard(s) Committee, the Radiation Safety Committee, and the Reactor Safety Committee one and the same? If not, please describe the composition, function, responsibilities, and authority of each of these committees regarding reviews and audits of major decommissioning activities, proposed procedures, radiation exposure records, reportable occurrences, and changes to the DP, or reference where that information is contained in the licensee’s Possession-only License or Technical Specifications.

RAI 3. If they are the same committee, please clarify the name of the committee.

RAI 4. Please provide the required technical qualifications of the Radiation Safety Officer and the Reactor Administrator, or reference where that information is contained in the licensee’s Possession-only License or Technical Specifications.

RAI 5. Does the Radiation Safety Officer or radiation safety organization have independent authority to stop work?

RAI 6. Please reconcile the differences in the ARRR Decommissioning Organization presented in Figure 4-3 of the DP with the Figure 1 of the ARRR Technical Specifications entitled, "ARRR ANSI/ANS-15.1 Organization" in Attachment 2 to Facility Operating License No. R-98, Amendment No. 6, dated January 6, 2021 (ML21242A463).

Facility Operating History

10 CFR 50.82(b)(4)(iii) states that the proposed DP must include a description of the planned final radiation survey.

RAI 7. For NRC to fully evaluate the planned final radiation survey in accordance with 10 CFR 50.82(b)(4)(iii), please provide a copy of Ref 4-1, CS-HP-PR-004, Historical Site Assessment of the Aerotest Radiography and Research Reactor, San Ramon, California, Revision 0, July 2011.

Facility Radiological Status

10 CFR 50.82(b)(4)(iii) states that the proposed decommissioning plan must include a description of the planned final radiation survey.

RAI 8. For NRC to fully evaluate the planned final radiation survey in accordance with 10 CFR 50.82(b)(4)(iii), please provide a copy of Ref 4-2, CSHP-PR-007, Characterization Report/or the Aerotest Radiography & Research Reactor, San Ramon, California, Revision 0, August 2011.

Choice of Decommissioning Alternative

RAI 9. For NRC to fully evaluate the factors delaying the completion of decommissioning (10 CFR 50.82(b)(4)(i)) please provide a description of fuel management plans, plans for fuel removal, and plans for ultimate disposition of fuel to the extent they are known at this time (see NUREG-1537, Part 2, Chapter 17, Appendix 17.1, Section 3.2.1, "Fuel Removal").

Availability of Funds and Estimated Cost

10 CFR 50.82(b)(3) states that for decommissioning plans that delay completion of decommissioning by including a period of storage or surveillance, the licensee shall provide that—

(i) Funds needed to complete decommissioning be placed into an account segregated from the licensee's assets and outside the licensee's administrative control during the storage or surveillance period, or a surety method or fund statement of intent be maintained in accordance with the criteria of § 50.75(e); and

(ii) Means be included for adjusting cost estimates and associated funding levels over the storage or surveillance period.

Section 3.2.3 of the DP, "Availability of Funds," states that, "Nuclear Labyrinth, LLC/Aerotest Operations, Inc are committed to providing funding for decommissioning of the ARRR." However, no information is provided on current decommissioning funding instruments in place or assurance methodology.

RAI 10. Provide information on all funding currently available for ARRR decommissioning. Include a comparison of available funding to the amount estimated to be needed for SAFSTOR and decommissioning of ARRR, a means for adjusting funding over the SAFSTOR period, and a plan for assuring the availability of funds for completion of decommissioning.

10 CFR 50.82(b)(4)(iv) states, in part, that the proposed decommissioning plan must include an updated cost estimate for the chosen alternative for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and plan for assuring the availability of adequate funds for completion of decommissioning.

Section 3.2.1 of the proposed DP, "Reactor Decommissioning Overview," states that the ARRR facility will be placed in SAFSTOR until the fuel is removed and then the facility will be decontaminated to levels that permit release for unrestricted use. Section 3.2.2 of the proposed DP, "Estimated Cost" states that the estimated cost to cover D&D [Deactivation and Decommissioning] of the ARRR, including dismantlement of the reactor and reactor systems but not site restoration activities, is \$2,879,276. For the basis of the estimated cost, the DP references the Decommissioning Cost Estimate for the Aerotest Radiography and Research Reactor, San Ramon CA, dated 2019. However, other than a cost breakdown in Table 3-3: "Decommissioning Cost Summary – ARRR," the entirety of the decommissioning cost estimate is not presented with the DP as an attachment, or otherwise made available to the NRC for review.

RAI 11. Provide a copy of CSHP-PR-006, "Decommissioning Cost Estimate for the Aerotest Radiography and Research Reactor, San Ramon," Revision 6, January 2019, prepared by EnergySolutions. Include a current estimated cost in 2022 dollars and means for adjusting the cost estimate during the storage and active decommissioning periods.

10 CFR 50.82(b)(4)(iv) states that the proposed decommissioning plan must include an updated cost estimate for the chosen alternative for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and plan for assuring the availability of adequate funds for completion of decommissioning.

RAI 12. To support the updated decommissioning cost estimate, please provide the estimated volumes (if not provided in the above reference requests) of low-level radioactive waste by waste classification that will require offsite disposal.

Aerotest Operations, Inc. - Request for Additional Information on review of request for Amendment to Approve Decommissioning Plan, ARRR DATE June 28, 2022

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