

February 5, 1997

Mr. Roger L. Suppes
Chief, Bureau of Radiation Protection
Ohio Department of Health
35 East Chestnut Street
Post Office Box 118
Columbus, Ohio 43266-0118

SUBJECT: APPLICATION FOR AMENDMENT OF LICENSE NO. TR-3 (DOCKET NO. 50-30) AND
LICENSE NO. R-93 (DOCKET NO. 50-185)

Dear Mr. Suppes:

Thank you for your letter of November 25, 1996, transmitting your comments and concerns on the application by the National Aeronautics and Space Administration (NASA) to amend licenses for their shutdown test and research reactors in Sandusky, Ohio.

The U.S. Nuclear Regulatory Commission (NRC) completed it's initial review and transmitted a request for additional information (RAI) to NASA by letter dated November 21, 1996. By letter of December 20, 1996, NASA responded to this RAI. These documents show that courtesy copies were sent to your department.

Some of the requested information and responses dealt with issues that are similar or identical to those that you raised in your letter. NRC is continuing it's review of the NASA license amendment application and responses. I have transmitted your November 25, 1996, letter to NASA by courtesy copy of this letter.

Thank you again for providing your comments and concerns for NRC consideration. If you have any further questions, I would be pleased to hear from you.

Sincerely,

Original signed by:

Marvin M. Mendonca, Senior Project Manager
Non-Power Reactors and Decommissioning
Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-30 and 50-185

cc w/incoming: See next page

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*SEE PREVIOUS CONCURRENCE

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MMendonca

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February 5, 1997

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in dark ink, appearing to read "Marvin M. Mendonca", is written over a horizontal line.

Marvin M. Mendonca, Senior Project Manager
Non-Power Reactors and Decommissioning
Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-30 and 50-185

cc w/incoming: See next page

Docket Nos. 50-30/50-185

Mr. Don Campbell
Director
NASA Lewis Research Center
21000 Brookpark Road M.S. 3-2
Cleveland, Ohio 44135

Mr. Henry Pfanner
Manager, Plum Brook Reactor Facility
National Aeronautics and Space Administration
Lewis Research Center
Cleveland, Ohio 44135

2/20/97

ADDITIONAL

EDO Principal Correspondence Control

FROM: DUE: / / EDO CONTROL: G960951
DOC DT: 11/25/96
FINAL REPLY:

Roger L. Suppes
Ohio Dept. of Health

TO:

Secretary

FOR SIGNATURE OF : ** GRN ** CRC NO:

DESC:

ROUTING:

COMMENTS ON RENEWAL APPLICATIONS FOR LICENSE NO.
TR-3 (DOCKET NO. 50-30) AND LICENSE NO. R-93
(DOCKET NO. 50-185) - NASA'S PLUM BROOK RESEARCH
REACTOR FACILITY

Taylor
Milhoan
Thompson
Blaha
Bangart, SP
Miller, RI
Paperiello, NMSS

DATE: 12/17/96

ASSIGNED TO: CONTACT:
NRR Miraglia

SPECIAL INSTRUCTIONS OR REMARKS:

For appropriate action.

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

PAPER NUMBER: CRC-96-1233 LOGGING DATE: Dec 12 96

ACTION OFFICE: EDO

AUTHOR: RCGER SUPPES
AFFILIATION: OHIO

ADDRESSEE: SECRETARY OF COMM/DSB

LETTER DATE: Nov 25 96 FILE CODE:

SUBJECT: COMMENTS ON RENEWAL APPLS FOR LIC NO. TR-3 (DOCKET
NO. 50.30) AND LICENSE NO. R-93 (DOCKET NO. 50-185)

ACTION: Appropriate

DISTRIBUTION: CHAIRMAN

SPECIAL HANDLING: NONE

CONSTITUENT:

NOTES:

DATE DUE:

SIGNATURE: . DATE SIGNED:
AFFILIATION:

OHIO DEPARTMENT OF HEALTH

246 N. HIGH STREET
Post Office Box 118
Columbus, Ohio 43266-0118
Telephone: (614) 486-3543



GEORGE V. VOINOVICH
Governor

PETER SOMANI, M.D., Ph.D.
Director of Health

Secretary of the Commission
U.S. Nuclear Regulatory Commission
ATTN: Docketing and Services Section
Washington, D.C. 20555-0001

November 25, 1996

Re: Comments on renewal applications for License No. TR-3 (Docket No. 50-30) and
License No. R-93 (Docket No. 50-185).

The Ohio Department of Health has received copies of the license renewal applications for the licenses issued to NASA's Plum Brook Reactor Facility, referenced above. These applications have been reviewed by the Bureau of Radiation Protection Licensing staff. The State has several comments and concerns which are submitted for your consideration. The principal concern is continued licensing of a closed research reactor with no decommissioning actions. We will be pleased to discuss any issues or concerns with the NRC licensing staff.

Sincerely,

A handwritten signature in cursive script, reading "Roger L. Suppes".

Roger L. Suppes
Chief, Bureau of Radiation Protection
Ohio Department of Health

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The following are concerns and comments on the applications for renewal of the NRC licenses NASA's Plum Brook Reactor Facility. Two applications are involved, one for the Plum Brook Reactor and one for the Mock Up Reactor at the Plum Brook facility (located inside the reactor facility). The concerns and comments apply to both applications.

1. The applications request renewal of the NRC licenses for a period of 20 years. Since the reactors were closed in 1973, this would result in a custodial period of approximately 43 years. The NRC regulations in 10 CFR 50.82(b)(ii) state that a decommissioning alternative is acceptable if it provides for completion of decommissioning without significant delay. A custodial period of 43 years with no decommissioning activity is a significant delay, and NASA should provide an alternative to no action at all. The applications state that NASA has no foreseeable plans to dismantle the facility.

The NRC requirements in 10 CFR 50.82(b)(iii) provide alternatives to immediate decommissioning to protect public health and safety and for lack of radioactive waste disposal capacity. NASA has provided both reasons in its applications. Further decay of radionuclide inventory with resulting lower personnel exposure is stated as a health and safety reason, however, after 23 years most of the radioactive decay available in a reasonable time period should have occurred.

The lack of available radioactive waste capacity is also cited. However, this has not been true for the past 23 years. Disposal capacity is certainly limited, but it does exist. There is no evidence that NASA has attempted to obtain approval for any disposal volume for any level of decommissioning or elevated level of cleanup activities.

2. The section on Inspections, tests, surveys includes only general categories and lists environmental considerations only in the general title environmental radiological surveys. The application states that tritium is located in the reactor vessel in a beryllium matrix and may be mobile in the right circumstances, and that the reactor vessel is continuously purged with nitrogen gas. This provides a potential release pathway, but no effluent monitoring system is described.
3. Figure 2 of the application provides a Generic Organization Chart, but does not provide a chart of the actual organization. A directorate is described, but no specific directorate is mentioned. This may have an influence on the amount of attention and resources allocated to the Plum Brook Reactor Facility.

On the generic organization chart the Radiation Safety Officer and the Plum Brook Reactor Manager are in the same directorate, but not in the same organizational line. The application states that the Radiation Safety Officer is responsible for organization, administration and direction of the radiological control and monitoring program. However, health physics and maintenance functions appear under the Plum Brook Management Office in the organization chart. Some additional detail in program operation should be included describing the physical location and operation of the Radiation Safety Officer and the radiation safety office.

4. The applications state that all byproduct waste materials have been disposed. This may mean all byproduct wastes packaged as wastes rather than all waste materials in the facility. Removal of all materials which are not reactor components would be a significant ALARA consideration.