

January 3, 1996

Mr. Pedro B. Perez  
Associate Director  
Nuclear Reactor Program  
North Carolina State University  
Box 7909  
Raleigh, North Carolina 27695-7909

SUBJECT: NORTH CAROLINA STATE UNIVERSITY PULSTAR REACTOR EMERGENCY PLAN  
(TAC NO. M79517)

Dear Mr. Perez:

The staff of the U.S. Nuclear Regulatory Commission (NRC) has completed its review and evaluation of changes to the North Carolina State University (NCSU) PULSTAR Reactor Emergency Plan that you submitted on September 15, 1995, in compliance with 10 CFR 50.54(q). The changes were reviewed against Appendix E to 10 CFR Part 50, the guidance criteria set forth in Regulatory Guide 2.6 (Rev. 1) and ANSI/ANS 15.16, "Emergency Planning for Research Reactors."

Based on its review, the staff concludes that the changes to the NCSU PULSTAR Reactor Emergency Plan maintains compliance with 10 CFR 50, Appendix E. We have determined that the changes do not decrease the effectiveness of your approved plan, and are, therefore, acceptable.

During review of your plan, a small inconsistency between Section 5.0, "Emergency Action Levels," and Table 6, "Emergency Action Levels," was noted. Sections 5.1 b. and 5.2 b. discuss EALs for radiological effluents. The second half of the EAL, which discusses direct external radiation doses, incorrectly uses the term "TEDE" (Total Effective Dose Equivalent) instead of "DDE" (deep dose equivalent). Table 6 uses the proper terminology.

If you have any questions, please contact me at (301) 415-1127.

Sincerely,

Original signed by: Marvin Mendonca for  
Alexander Adams, Jr., Senior Project Manager  
Non-Power Reactors and Decommissioning  
Project Directorate  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Docket No. 50-297

cc: See next page

DISTRIBUTION:

Docket File 50-297  
PUBLIC  
PDND r/f  
DCrutchfield

BGrimes  
SWeiss  
EHylton

OGC (15-B-18)  
AAdams  
Region II  
LCohen

PDND:LA  
EHylton

PDND:PM  
AAdams

PDND:J  
SWeiss

12/29/95

12/29/95

1/5/96

OFFICIAL RECORD COPY  
DOCUMENT NAME: G:\SECY\ADAMS\297EP

9601160421 960103  
PDR ADOCK 05000297  
P PDR

NRC FILE CENTER COPY

*DF01*

*SAH*  
*11*



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 3, 1996

Mr. Pedro B. Perez  
Associate Director  
Nuclear Reactor Program  
North Carolina State University  
Box 7909  
Raleigh, North Carolina 27695-7909

SUBJECT: NORTH CAROLINA STATE UNIVERSITY PULSTAR REACTOR EMERGENCY PLAN  
(TAC NO. M79517)

Dear Mr. Perez:

The staff of the U.S. Nuclear Regulatory Commission (NRC) has completed its review and evaluation of changes to the North Carolina State University (NCSU) PULSTAR Reactor Emergency Plan that you submitted on September 15, 1995, in compliance with 10 CFR 50.54(q). The changes were reviewed against Appendix E to 10 CFR Part 50, the guidance criteria set forth in Regulatory Guide 2.6 (Rev. 1) and ANSI/ANS 15.16, "Emergency Planning for Research Reactors."

Based on its review, the staff concludes that the changes to the NCSU PULSTAR Reactor Emergency Plan maintains compliance with 10 CFR 50, Appendix E. We have determined that the changes do not decrease the effectiveness of your approved plan, and are, therefore, acceptable.

During review of your plan, a small inconsistency between Section 5.0, "Emergency Action Levels," and Table 6, "Emergency Action Levels," was noted. Sections 5.1 b. and 5.2 b. discuss EALs for radiological effluents. The second half of the EAL, which discusses direct external radiation doses, incorrectly uses the term "TEDE" (Total Effective Dose Equivalent) instead of "DDE" (deep dose equivalent). Table 6 uses the proper terminology.

If you have any questions, please contact me at (301) 415-1127.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alexander Adams, Jr.", written in dark ink.

Alexander Adams, Jr., Senior Project Manager  
Non-Power Reactors and Decommissioning  
Project Directorate  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Docket No. 50-297

cc: See next page

North Carolina State University

Docket No. 50-297

cc:

Office of Intergovernmental Relations  
116 West Jones Street  
Raleigh, North Carolina 27603

Mr. Pedro B. Perez, Associate Director  
Nuclear Reactor Program  
North Carolina State University  
P. O. Box 7909  
Raleigh, North Carolina 27695-7909

Dr. Donald Dudziak, Head  
Nuclear Engineering Department  
North Carolina State University  
P. O. Box 7909  
Raleigh, North Carolina 27695-7909

Dr. William Vernetson  
Director of Nuclear Facilities  
Department of Nuclear Engineering  
Sciences  
University of Florida  
202 Nuclear Sciences Center  
Gainesville, Florida 32611

Dr. Ratib A. Karam, Director  
Neely Nuclear Research Center  
Georgia Institute of Technology  
900 Atlantic Drive, N.W.  
Atlanta, Georgia 30332

Dr. R. U. Mulder, Director  
UVA Reactor Facility  
Dept. of Nuclear Engineering  
Charlottesville, Virginia 22903-2442

Dayne H. Brown, Director  
Division of Radiation Protection  
Department of Environmental,  
Health and Natural Resources  
P. O. Box 27687  
Raleigh, North Carolina 27611-7687

Dr. Ralph K. Cavin, III  
Dean of Engineering  
North Carolina State University  
P. O. Box 7009  
Raleigh, North Carolina 27695-7909

Mr. Gerald D. Wicks, CHP  
Reactor Health Physicist  
North Carolina State University  
P. O. Box 7909  
Raleigh Carolina 27695-7909