



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

Tera

NOV 05 1980

Docket Nos.: 50-369
and 50-370

IS NRC
DISTRIBUTION SERVICES
BRANCH

1980 NOV 10 AM 9 57

REGISTRATION
SERVICES UNIT

Duke Power Company
ATTN: Mr. William O. Parker, Jr.
Vice President - Steam Production
P. O. Box 33189
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Parker:

SUBJECT: CATEGORY I MASONRY WALL DESIGN
(MCGUIRE NUCLEAR STATION, UNITS 1 AND 2)

We have reviewed your letter of September 23, 1980 regarding Category I Masonry wall design and find that we require some additional information which is described in the enclosure.

We request that this information be provided no later than November 14, 1980.

Sincerely,

R. L. Tedesco, Assistant Director
for Licensing
Division of Licensing

Enclosure:
As stated

cc: See service list

8011190572

A

REQUEST FOR ADDITIONAL INFORMATION
ON
MC GUIRE MASONRY WALL DESIGN
STRUCTURAL ENGINEERING BRANCH
(REF: DPCO LETTER DATED SEPT. 23, 1980)
Docket Nos. 50-369, 370

8. In your responses to questions 3 and 4 it is stated that because of your use of assumptions such as rigid wall and simply supported end conditions together with a design factor of 1.875, no rigorous response spectra type of analysis is required and it is reasonable to conclude that the masonry wall design approach is reasonable, adequate and conservative. Your conclusion is not so obvious to the staff. From attachment 7, for a structure or structural element having a period of 0.08 second the response acceleration is found to be 0.5 (broadened) vs. 0.16 for zero period. The factor is $0.5/.16 = 3.125$ vs. 1.875. In the reinforcing details provided (attachment #9) especially at corners, the reinforcing steel is placed either on one face or at the middle of the section. In view of these observations it is requested that in order to substantiate your conclusion a rigorous response spectra analysis be performed, taking into consideration such factors as interstory drift, effect of upper floor response, actual support condition, etc.
9. In your response 4(a) it is stated that for collar joints in multiple wythe walls, mortar was applied to adjoining faces of both wythes and pressed firmly to insure full bond between wythes, thus constituting a shear transform mechanism between wythes. From your computation check the resulting shear stresses due to the inertial loads are found to be about 11 psi. Since shear in collar joints is different from shear in other joints, indicate what the allowable value for such shear is and how it is established.
10. In your response 6(a) in discussing the effects of the combined action of local and global loads, it is stated that local loads are considered as global in-plane loads only when they are of significant magnitude. Indicate your criterion for "significant magnitude".

Mr. William O. Parker, Jr.
Vice President, Steam Production
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

cc: Mr. W. L. Porter
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Mr. R. S. Howard
Power Systems Division
Westinghouse Electric Corporation
P. O. Box 355
Pittsburgh, Pennsylvania 15230

Mr. E. J. Keith
EDS Nuclear Incorporated
220 Montgomery Street
San Francisco, California 94104

Mr. J. E. Houghtaling
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

Mr. Jesse L. Riley, President
The Carolina Environmental Study Group
854 Henley Place
Charlotte, North Carolina 28207

J. Michael McGarry, III, Esq.
Debevoise & Liberman
1200 Seventeenth Street, N. W.
Washington, D. C. 20036

Robert M. Lazo, Esq., Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Emmeth A. Luebke
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Cadet H. Hand, Jr., Director
Bodega Marine Lab of California
P. O. Box 247
Bodega Bay, California 94923

David Flesichaker, Esq.
1735 Eye Street, N. W.
Suite 709
Washington, D. C. 20006

Richard P. Wilson, Esq.
Assistant Attorney General
State of South Carolina
2600 Bull Street
Columbia, South Carolina 29201

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

County Manager of Mecklenburg County
720 East Fourth Street
Charlotte, North Carolina 28202

U. S. Environmental Protection Agency
ATTN: EIS Coordinator
Region IV Office
345 Courtland Street, N. W.
Atlanta, Georgia 30308

Mr. Tom Donat
Resident Inspector McGuire NPS
c/o USNRC
Post Office Box 216
Cornelius, North Carolina 28031