



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

Docket No. 50-423/85-29

JUN 21 1985

Mr. J. F. Opeka
Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
P.O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

Subject: Millstone 3 Engineering Assurance Program (EAP) Technical
Audit Preparation Inspection Report 50-423/85-29

This letter conveys the results and conclusions of the inspection of review plans for the Northeast Nuclear Energy Company's (NNECO) EA Technical Audit (Ref. "Program for Completion of the Engineering Assurance In-Depth Technical Audits of Millstone Unit 3 Project" dated February 19, 1985 with Revision 2 dated May 23, 1985). The inspection was conducted by the NRC's Office of Inspection and Enforcement. The team was composed of personnel from NRC's Office of Inspection and Enforcement, and consultants. Also present were representatives from Region I and the Office of Nuclear Reactor Regulation. The inspection took place at the Stone and Webster Engineering Corporation (SWEC) Boston, Massachusetts from May 28, 1985 to May 29, 1985.

The NRC's inspection of the EA Technical Audit preparations for Millstone Unit No. 3 was organized into the five major disciplines involved; viz, mechanical systems, mechanical components, civil/structural, electric power and instrumentation and controls. In each of these areas, the NRC inspectors concentrated on the preparations of SWEC review plans to implement the proposed EA Technical Audit. Where warranted, the NRC reviewed the resumes and certifications of the NMPC/SWEC audit teams.

As a result of the inspection, the NRC Inspection Team concluded that the preparations and approach for the upcoming audit were in most cases in accordance with the approved program plan and were in sufficient technical depth to achieve program objectives subject to the following general comments:

- ° The Engineering Assurance program is not addressing the design process employed to analyze and resolve seismic interactions. We understand that your approach in this area of design is similar to that used on SEP plants, relying heavily on walkdowns to determine adverse seismic interactions. We further understand that the acceptance criteria used in the walkdowns is based on experience gained through the study of earthquake damage caused in various industrial facilities. This approach is unique and deviates from the normal manner that the seismic interaction question has been typically addressed on other NTOL plants. We have brought this issue to the attention of the Office of Nuclear Reactor Regulation for

8507110452 850621
PDR ADOCK 05000423
G PDR

their review as it constitutes a potentially open licensing issue. We understand the final SWEC EAP report will not be able to reach a conclusion regarding that portion of the design process addressing seismic interactions. This will be maintained as an open issue in our EAP review pending advice to IE by the Office of Nuclear Reactor Regulation on this aspect of design.

- ° Instances were observed where EA auditors appeared to have intended to accept SWEC procedures without further review against design requirements or regulatory commitments.
- ° The attributes to be assessed in some review plans need modification or augmentation to provide for a sufficiently in-depth review. For example, the calculation review plan (1903-1) where used in pipe stress analysis doesn't consider flexibility of in-line components, confirmation of assured pipe support stiffness, or equipment flexibility at anchors and the Engineering and Design Coordination Report (E&DCR) Review Plan attributes are limited to the adequacy of the problem description and solution stated on the E&DCR's. As such it does not consider the completeness of the problem posed including whether proper interdisciplinary coordination has been addressed.
- ° The significance of calculations solicited for review needs to be improved in some cases. Also, where partial calculations are critical to the particular review, calculation review sheets were not being prepared. Finally, the calculation review plan does not address open assumptions which need later verification nor the appropriateness and validity of computer codes used in the calculations.
- ° Audit of the NSSS interface was not accounted for in the electric power and I&C disciplines.
- ° The following deficiencies in audit scope were noted:

(1) Civil/Structural Discipline

Following an accident the heated containment liner will be rapidly cooled by the actuation of the recirculation spray system (RSS). Therefore, it seems appropriate that the expansion and contraction of the containment liner plate during operation of the RSS be reviewed. This was not being done. In addition, the seismic analysis which developed the RSS equipment seismic specification was not being reviewed.

(2) Electric Power

Containment penetration assemblies, circuit breaker coordination and vendor documents for motor control centers, batteries, and battery chargers were not being reviewed.

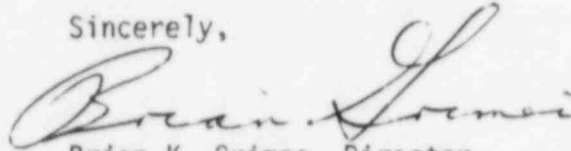
The NRC inspection team has been informed that corrective actions on all the above items are already in process by the EA Audit Team. Specific comments of the NRC inspection team are provided in the enclosed Preparation Inspection Report 50-423/85-29. A formal response to this Inspection Report is not required.

Mr. J. F. Opeka

- 3 -

The program improvements that have been taken or are planned by SWEC on the items covered in this inspection report will be reviewed by NRC during the Implementation Review at the Millstone Unit No. 3 Site.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian K. Grimes".

Brian K. Grimes, Director
Division of Quality Assurance, Vendor,
and Technical Training Center Programs
Office of Inspection and Enforcement

Enclosure:
Preparation Inspection Report

cc: See next page

Mr. J. F. Opeka

- 4 -

cc:

Gerald Garfield, Esq.
Day, Berry & Howard
City Place
Hartford, Connecticut 06103-3499

Mr. Maurice R. Scully, Executive
Director
Connecticut Municipal Electric
Energy Cooperative
268 Thomas Road
Groton, Connecticut 06340

Robert W. Bishop, Esq.
Corporate Secretary
Northeast Utilities
Post Office Box 270
Hartford, Connecticut 06141

Mr. T. Rebelowski
Senior Resident Inspector Office
U.S. Nuclear Regulatory Commission
Millstone III
P.O. Box 615
Waterford, Connecticut 06385

Mr. Michael L. Jones, Manager
Project Management Department
Massachusetts Municipal Wholesale
Electric Company
Post Office Box 426
Ludlow, Massachusetts 01056

Regional Administrator
U.S. NRC, Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Mr. Karl Abraham
Public Affairs Office
U.S. Nuclear Regulatory Commission,
Region I
King of Prussia, Pennsylvania 19406

June 24, 1985

Charles E. Norelius

4

Distribution

DCS

DQAVT Reading

QAB Reading

RHVollmer, IE

BKGrimes, IE

GTAnkrum, IE

JLMilhoan, IE

DPNorkin, IE

JStefano, NRR

RKnopp, RIII

JGrobe, RIII, Perry Sr. Resident

for
IE:DQAVT:IE
DPNorkin
6/12/85

JLM
IE:DQAVT:QAB
JLMilhoan
6/12/85

X
IE:DQAVT:C
GTAnkrum
6/18/85

BSJ
IE:DQAVT:IE
BKGrimes
6/19/85

J Part
6/20/85

*see attached
draft concurred
in by Milhoan*

Distribution:

J. M. Taylor, IE
R. H. Vollmer, IE
B. K. Grimes, IE
J. G. Partlow, IE
G. T. Ankrum, IE
J. L. Milhoan, IE
E. V. Imbor, IE
G. S. Lewis, IE
DCS 016 (Docket No. 50-423)
QAB Reading
DQAVT Reading
E. C. Wenzinger, RI
B. J. Youngblood, NRR
B. Doolittle, NRR
NRC PDR
Local PDR
H. Thompson, NRR
T. E. Murley, RI
R. Starostecki, RI
T. M. Novak, NRR
W. Butler, NRR
AEOD
OELD
NMSS
RES
ACRS (10)
NSIC
NTIS
Regional Administrators
Regional Division Directors
T. Speis, NRR
E. L. Jordan, IE
J. Axelrad, IE
Team Members
H. Boulden, OIA
SECY
OPE
W. J. Dircks, EDO
H. R. Denton, NRR
OCA (3)

E. Ambrose
IE:DQAVT:QAB
for GSLewis:hmc
06/21/85

E. Ambrose
IE:DQAVT:QAB
JLMilhoan
06/21/85

[Signature]
IE:DQAVT:QAB:C
CTAnkrum
for 06/21/85

[Signature]
IE:DQAVT:D
BKGrimes
06/21/85

Distribution:

J. M. Taylor, IE
R. H. Vollmer, IE
B. K. Grimes, IE
J. G. Partlow, IE
G. T. Ankrum, IE
J. L. Milhoan, IE
E. V. Imbor, IE
G. S. Lewis, IE
DCS 016 (Docket No. 50-423)
QAB Reading
DQAVT Reading
E. C. Wenzinger, RI
B. J. Youngblood, NRR
B. Doolittle, NRR
NRC PDR
Local PDR
H. Thompson, NRR
T. E. Murley, RI
R. Starostecki, RI
T. M. Novak, NRR
W. Butler, NRR
AEOD
OELD
NMSS
RES
ACRS (10)
NSIC
NTIS
Regional Administrators
Regional Division Directors
T. Speis, NRR
E. L. Jordan, IE
J. Axelrad, IE
Team Members
H. Boulden, OIA
SECY
OPE
W. J. Dircks, EDO
H. R. Denton, NRR
OCA (3)

E. Ambrose
IE:DQAVT:QAB
GSLewis:hmc
06/21/85

E. Ambrose
IE:DQAVT:QAB
JLMilhoan
06/21/85

G. T. Ankrum
IE:DQAVT:QAB:C
GTAnkrum
06/21/85

B. K. Grimes
IE:DQAVT:D
BKGrimes
06/21/85