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June 12, 1981

In reply, please refer to LAC-7590

DOCKET NO. 50-409

Director of Nuclear Reactor Regulation
ATTN: Mr. Dennis M. Crutchfield
Operating Reactors Branch #5
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
SEP TOPIC III-6, SEISMIC DESIGN CONSIDERATIONS LA CROSSE

REFERENCES: (1) NRC Letter, Crutchfield to Linder, Dated April 24, 1981.
(2) DPC Letter LAC-7484, Linder to Crutchfield, Dated April 23, 1981.
(3) DPC Letter LAC-7181, Linder to Crutchfield, Dated October 14, 1980.

Gentlemen:

Your letter, Reference (1), requested DPC to provide a 30-day response to expand on the La Crosse BWR's seismic re-evaluation program. DPC personnel attended a meeting on this subject in Bethesda, Maryland, on May 19, 1981; at that time W. Russell, Chief, SEP Program Branch, granted an extension on the response to June 15, 1981.

DPC has provided its seismic re-evaluation methodology for structural and piping system analysis in Attachment 1. Reference (2) previously discussed the methodology and status of LACBWR electrical equipment anchorage. During the May-June 1981 maintenance outage, additional work was accomplished. Attachment 2 has been updated to reflect the recent progress on the electrical equipment.

Reference (3) summarized DPC's historical approach to the seismic evaluation of the La Crosse site since 1973. To date, DPC has undertaken substantial efforts to evaluate the integrity of the plant and systems essential to safety and safe shutdown. Attachment 3 is DPC's proposed schedule to complete the analytical portion of the seismic re-evaluation program.

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Due to recent discussions with the NRC staff, a resolution to the site specific liquefaction question and an apparent assignment of a .12 g ground level acceleration, the scope of the seismic re-evaluation program has increased from the previously submitted plan. However, DPC will attempt to complete the increased analytical work in the same time frame identified in Reference (3) i.e. October 1982.

DPC is continuing the analysis program and has commenced adding piping restraints and electrical equipment anchorage where the analysis has indicated the need for additional support.

Attachment 4 projects a tentative schedule for completing the modifications as identified in the analysis. DPC will continue the modification program while the remaining analysis are in progress to move the seismic program forward. In this manner, advanced planning can optimize the installation of modifications. Without the analysis of all systems and structures completed, it is difficult to accurately estimate the total scope of time, materials, and plant conditions required to fully implement the necessary modifications. The estimated completion date of January 1, 1985, will be revised at the conclusion of the analytical evaluation portion of the seismic task.

This overall approach will permit a large and complex task to be completed in an orderly, economical, and radiologically acceptable manner.

Operation of LACBWR is justified in the interim. The analysis and modification of the anchorage of emergency power, distribution systems, and instrumentation is underway and will be completed by the end of our next refueling outage in early 1982. DPC has completed 22 of 31 of the High Pressure Core Spray and associated System restraint modifications and will complete the remaining work by the next refueling outage. It is anticipated that 6 of the 9 remaining restraints will be added by September 1, 1981. With this system seismically hardened, there will be a high assurance of system operability if the postulated seismic event occurs. As a result of the NRC seismic evaluation of LACBWR, a new Emergency Service Water Supply System has been added to the LACBWR facility. This system will provide an independent and reliable backup cooling water source to the reactor with its supply being obtained from the Mississippi River. Although, the NRC has assigned a return period of 1000 to 10,000 years for a peak acceleration of .12 g, Technical Reference 10 in Reference (3) determines the site specific return frequency to be more likely between 10,000 and 100,000 years. Based on the original LACBWR design, the continuing efforts to improve supports and anchorage and probability of occurrence, DPC feels continued operation is justified.

If there are any questions concerning this topic, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

Frank Linder/RB

Frank Linder, General Manager

FL:RMB:abs

ATTACHMENTS

CC: J. G. Keppler, Reg. Dir., NRC-DRO III
Resident Inspectors

ATTACHMENT 1

I. Reactor Containment Building

Two separate evaluations of the seismic integrity of the LACBWR containment building have been performed and are of significance to the overall SEP - seismic integrity issue. The original study was performed by Gulf United Nuclear Fuels Co. and was issued in 1974 (Reference 1). (This company is no longer in business). Analysis methods and criteria for this study are discussed in Section (A) below. A second, on-going study, is currently being performed by Nuclear Energy Services, Inc. Analysis methods and criteria for this evaluation is presented in Section (B).

A) Original Study (1974) by Gulf United

Structural Information

a) Description of Component
Reactor Containment Building

b) Modeling Techniques (See Figure I-1)
Structural Damping - 7 percent SSE, 3 percent OBE
Mathematical Model - stick beam
Mass Distribution - lumped mass (36 masses)
Model Degree of Freedom - 2-D

c) Seismic Analysis Method
Dynamic Method - time history
Selection of Significant Modes - first three modes analyzed
Relative Displacement - N/A
Modal Combination - N/A
3 Components Input - only one horizontal acceleration applied
Floor Spectra Generation - for RCS subsystems
Peak Broadening - N/A
Load Combination - seismic only

d) Analysis Criteria
Codes - ACI (1971) Concrete
AISC (1970) Steel

e) Computer Codes
Code - SIM (no further information was presented)

B) Ongoing Study at NES (See Figure I-2)

Structural Damping	SSE
Steel	4%
Reinforced Concrete	7%

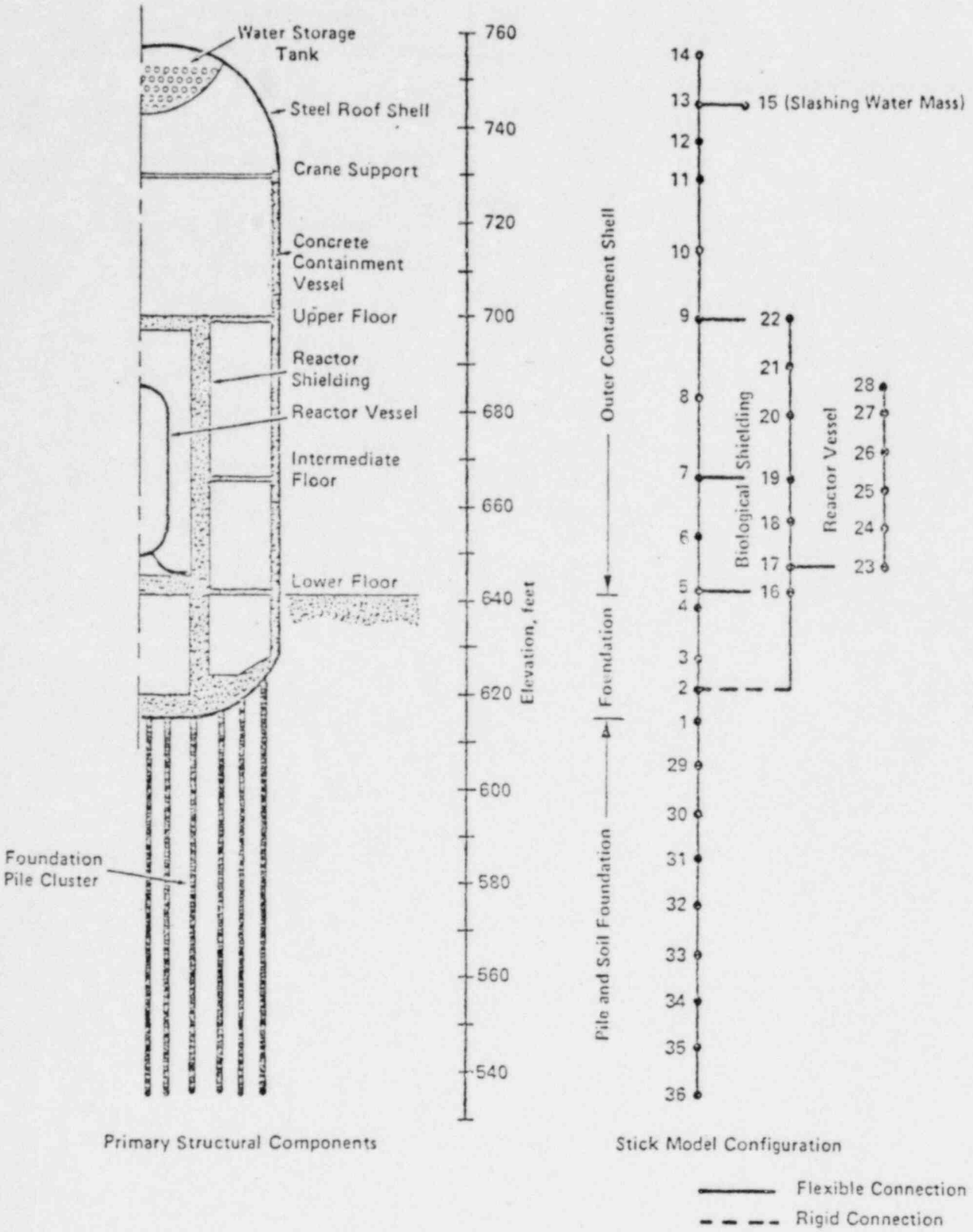


FIGURE I-1 - MODEL USED FOR DYNAMIC ANALYSIS OF REACTOR CONTAINMENT BUILDING 1974 GULF UNITED STUDY

POOR ORIGINAL

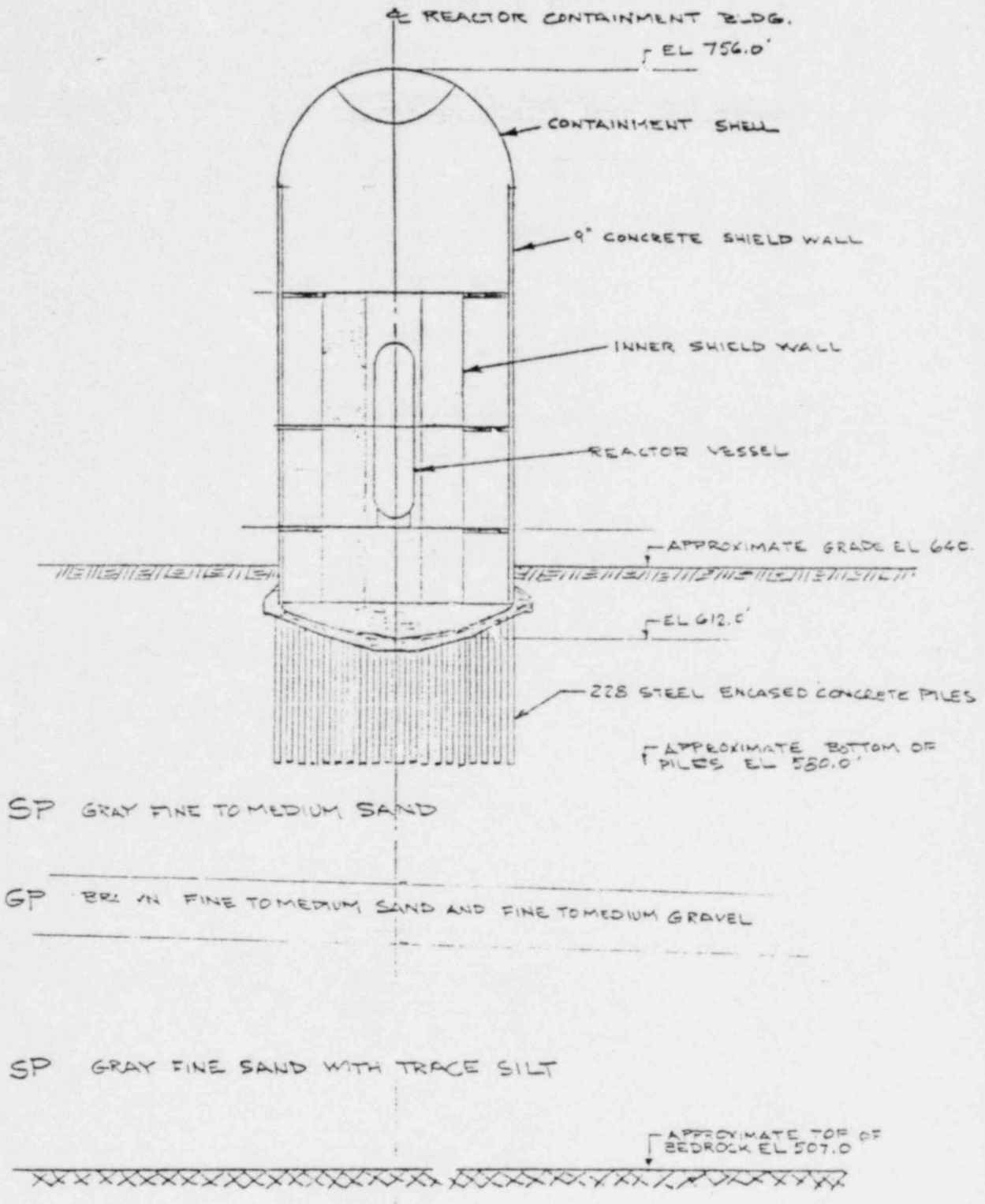
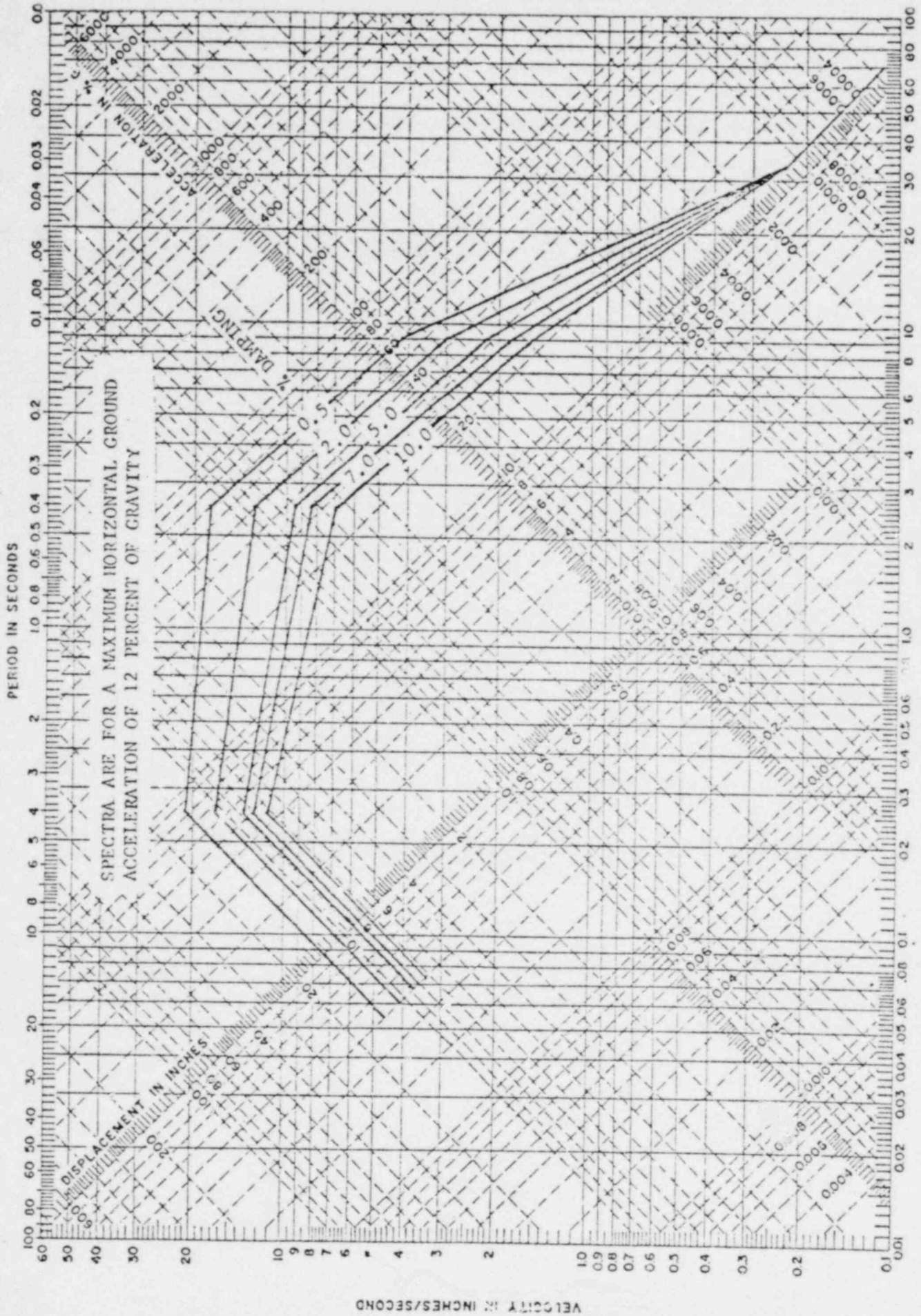


FIGURE I-2

POOR ORIGINAL



RESPONSE SPECTRA
LACBWR
GULF UNITED

FIGURE I-3

POOR ORIGINAL

These valves were taken from Reg. Guide 1.61.

Seismic Input

This model was looked at using only a predicted SSE event. The SSE event was formulated from the response spectra of Ref. 1 having a 0.12g maximum horizontal ground acceleration (See Figure I-3). Two horizontal and one vertical were used. The vertical responses were found by using the procedure fo Reg. Guide 1.60 (for frequencies from .25Hz to 3.5Hz the ratio varies from 2/3 to 1. For frequencies greater than 35.Hz, maximum ground acceleration is used).

Combining of modal responses and spatial components completed as per NRC Reg. Guide 1.92. The responses of all modes up to a frequency of 35Hz were used.

Soil Structure

Soil-structure interaction effects were examined by the use of an inertial interaction analysis. In this method, kinematic interactions were neglected. The dynamic forces applied to the structure are then simply the product of the design ground motion and the mass of the structure. Since the loading is applied only on the structure, the soil is replaced by springs (impedances) and prescribed design motions are applied directly at the support for the springs.

Spring Constants

Refer to Table (1)

TABLE 1

Motion	Spring Constant	Reference
Vertical	$k_z = \frac{4Gr_o}{1-\nu}$	Timoshenko and Goodier (1951)
Horizontal	$k_x = \frac{32(1-\nu)Gr_o}{7-8\nu}$	Bycroft (1956)
Rocking	$k_\psi = \frac{8Gr_o^3}{3(1-\nu)}$	Borowicka (1943)
Torsion	$k_\Theta = \frac{16}{3}Gr_o^3$	Reissner and Sagoci (1944)

$\left(Note: G = \frac{E}{2(1+\nu)}\right)$

To account for variation in the soil, the analysis was performed using the normal spring (site soil data) and 1.5 times normal valve. This would maximize stresses within the structure.

Model (See Figure I-4 Thru Figure I-8)

Lumped Mass Model (66 Masses as Shown in Figure I-4). The Model Consists of Six Basic Parts:

a) Steel Containment Shell
b) Reactor Pressure Vessel
c) Outer Concrete Shield Wall
d) Inner Concrete Shield Wall
e) Rigid Foundation Mat.
f) Soil Springs

Eccentricities - (See Figure I-7)

The Steel Containment Shell and the Outer Concrete Shield Wall were considered concentric to the base. The Inner Shield Wall was considered concentric to the base in the X_2 direction (east-west), but 86 inches eccentricity was used in the X_1 direction (south). The Reactor Pressure Vessel was considered 30"eccentric from the Inner Shield Wall which combines to make it a total of 116" eccentric with the foundation (in the southern direction).

Foundation details are as shown in Figure I-8. The Pile Cap was assumed rigid for the analysis. Piles and soil within the pile cluster were neglected and soil spring constants used.

Pile Analysis

Loads from the computer program were applied statically to the center of the piles. Following the calculation of the c.g. of the pile system, the resulting loads on individual piles was found.

Computer Analysis

The computer code used in the analysis was MRI/STARDYNE 3(c). The following programs were used: STAR, DYNRE 4, Lanczos, and Post.

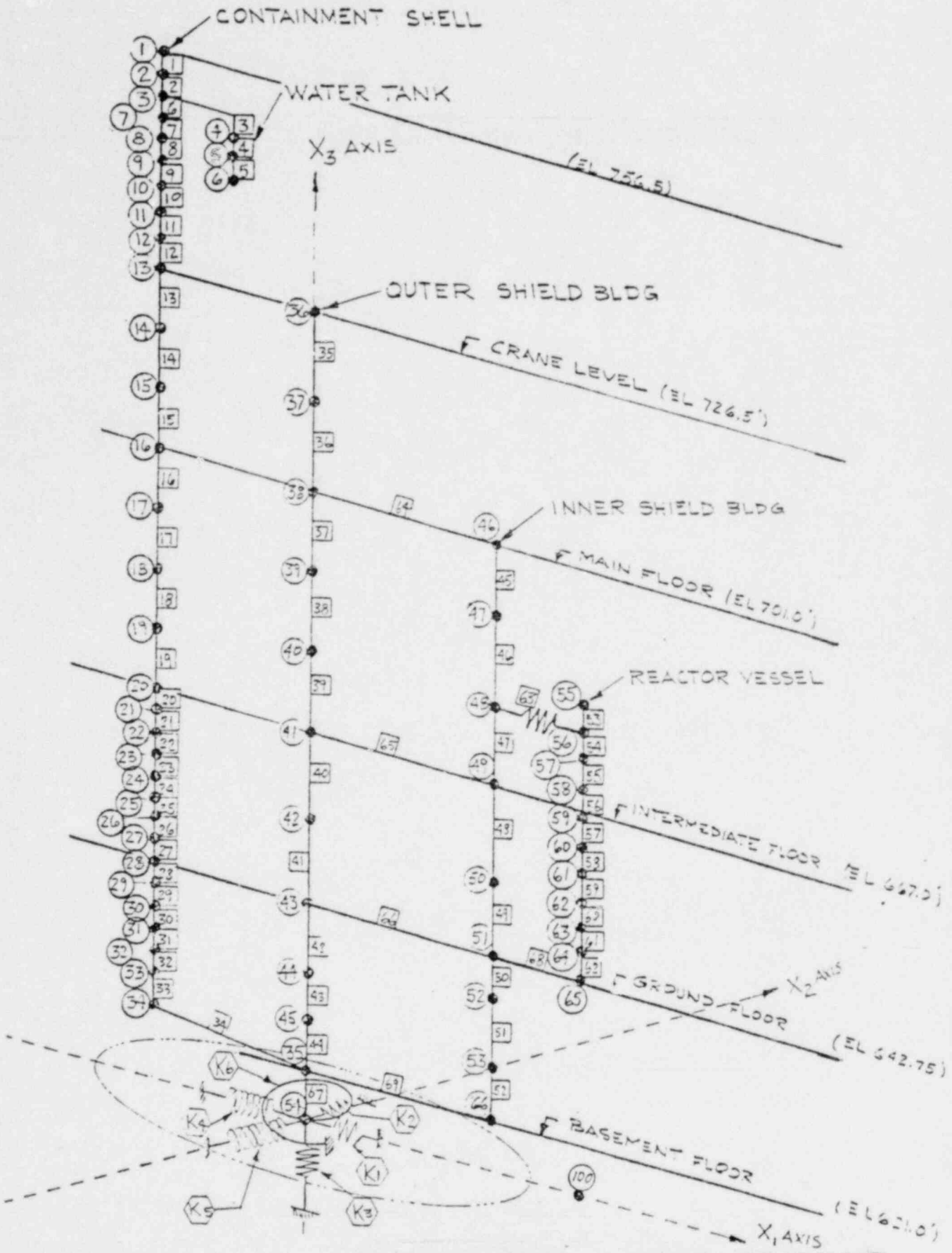
Loads

The following loadings were considered:

Live load and dead load $\mp \sqrt{X_1^2 + X_2^2 + X_3^2}$

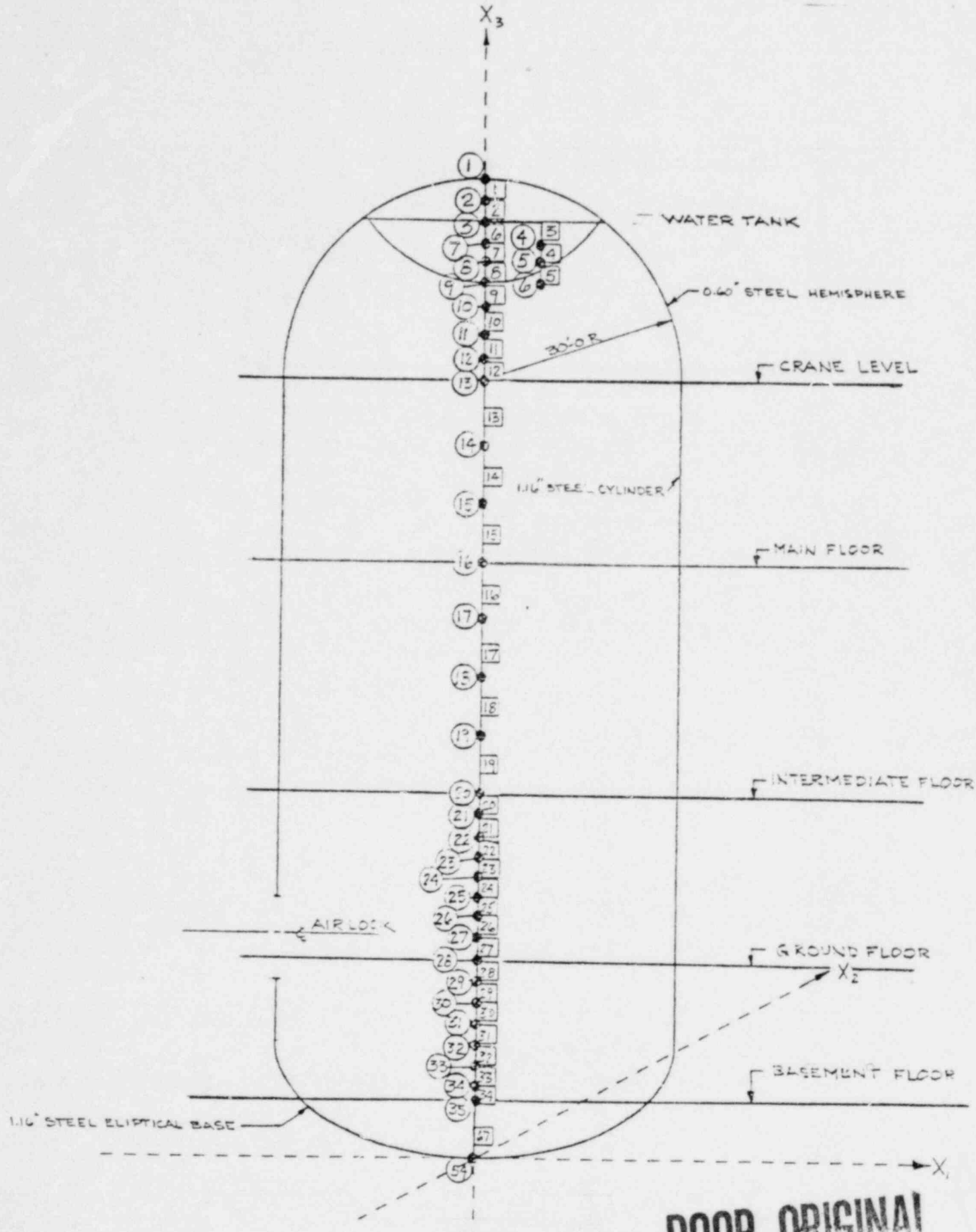
For Steel Containment

In addition to above loads, internal pressure was added (52 psi).



POOR ORIGINAL

FIGURE I-4
3-D MODEL USED IN DYNAMIC ANALYSIS



POOR ORIGINAL

FIGURE I-6
STEEL CONTAINMENT SHELL

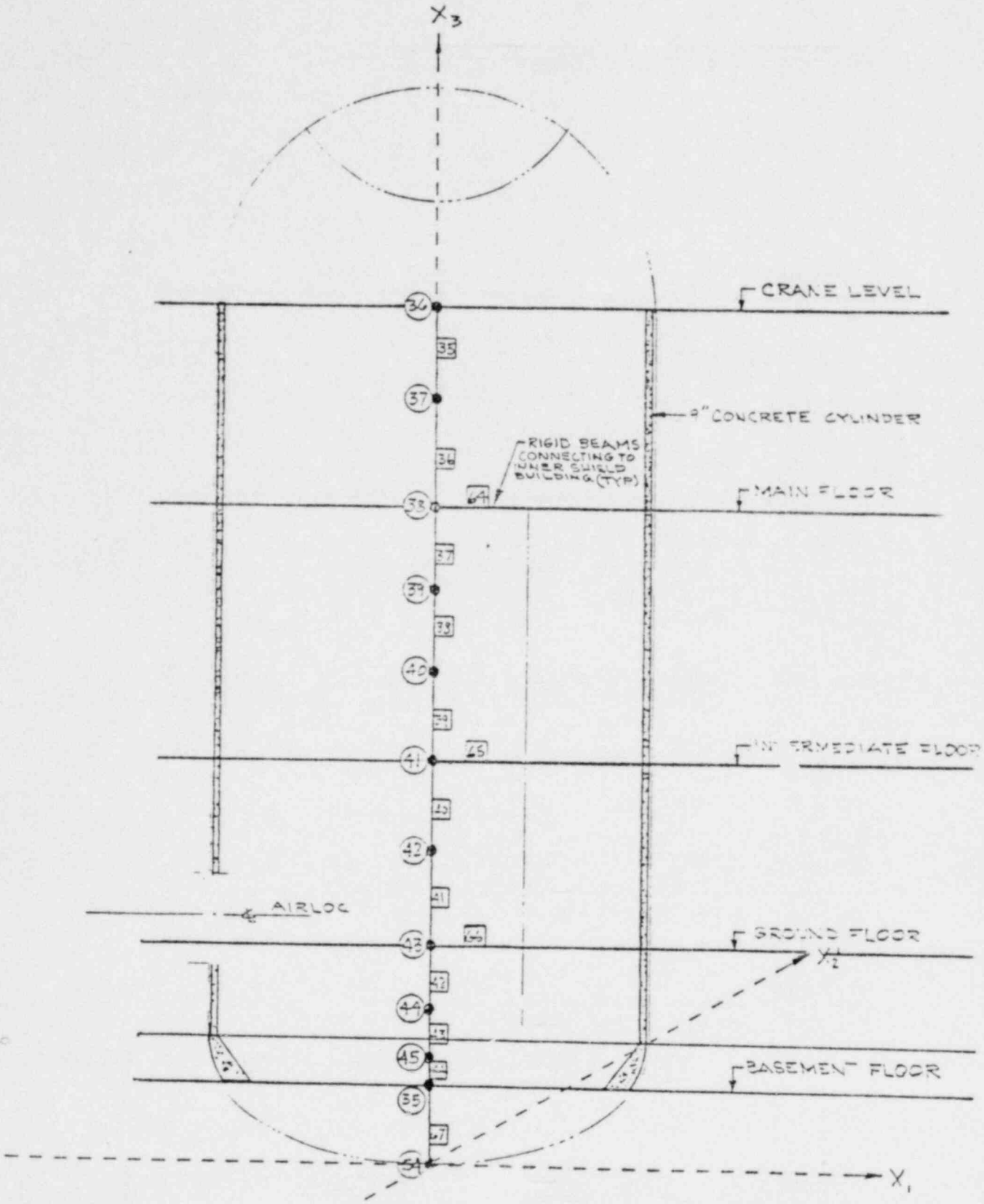


FIGURE I-6
OUTER SHIELD BUILDING

POOR ORIGINAL

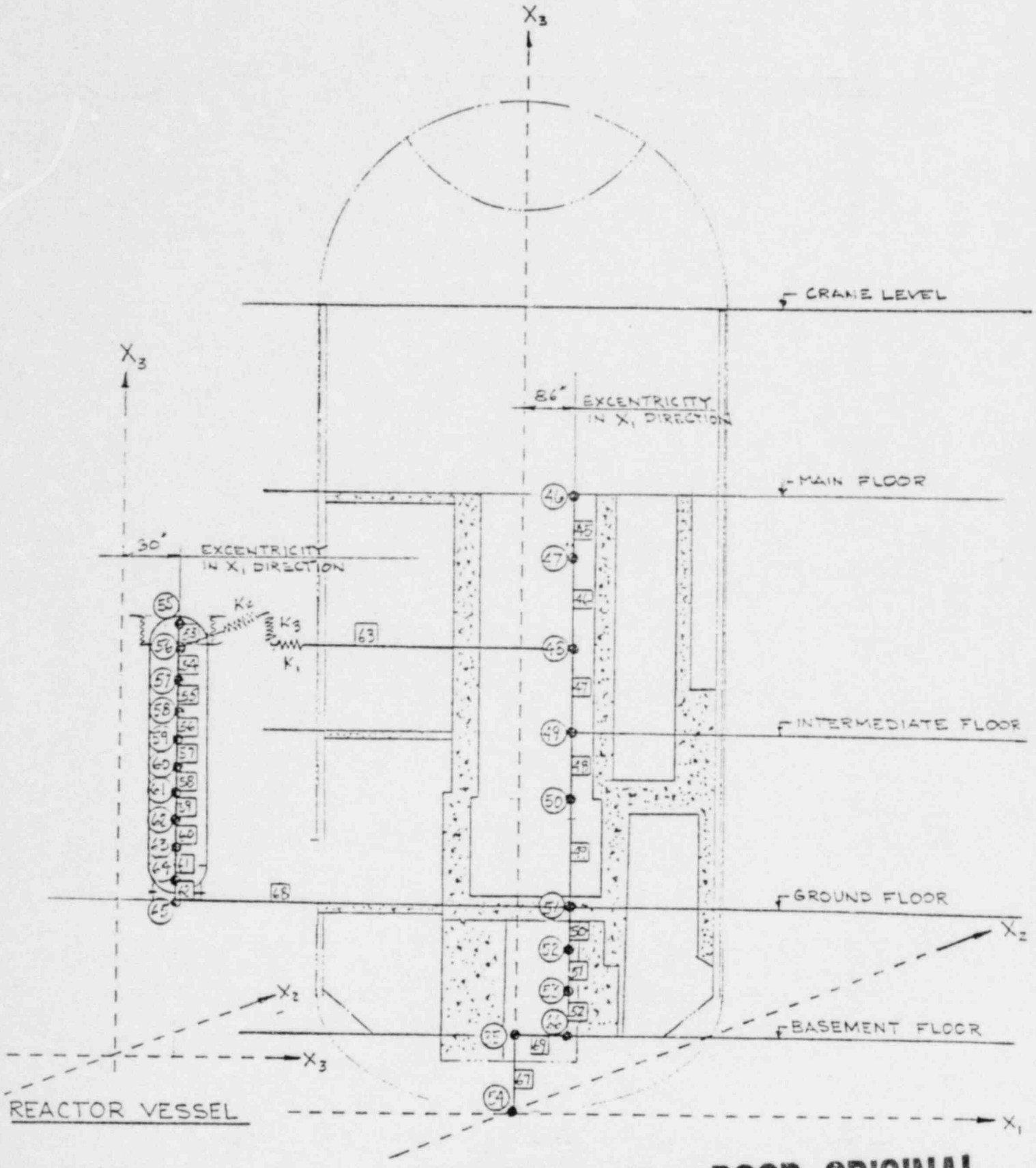


FIGURE I-7
INNER SHIELD BUILDING

POOR ORIGINAL

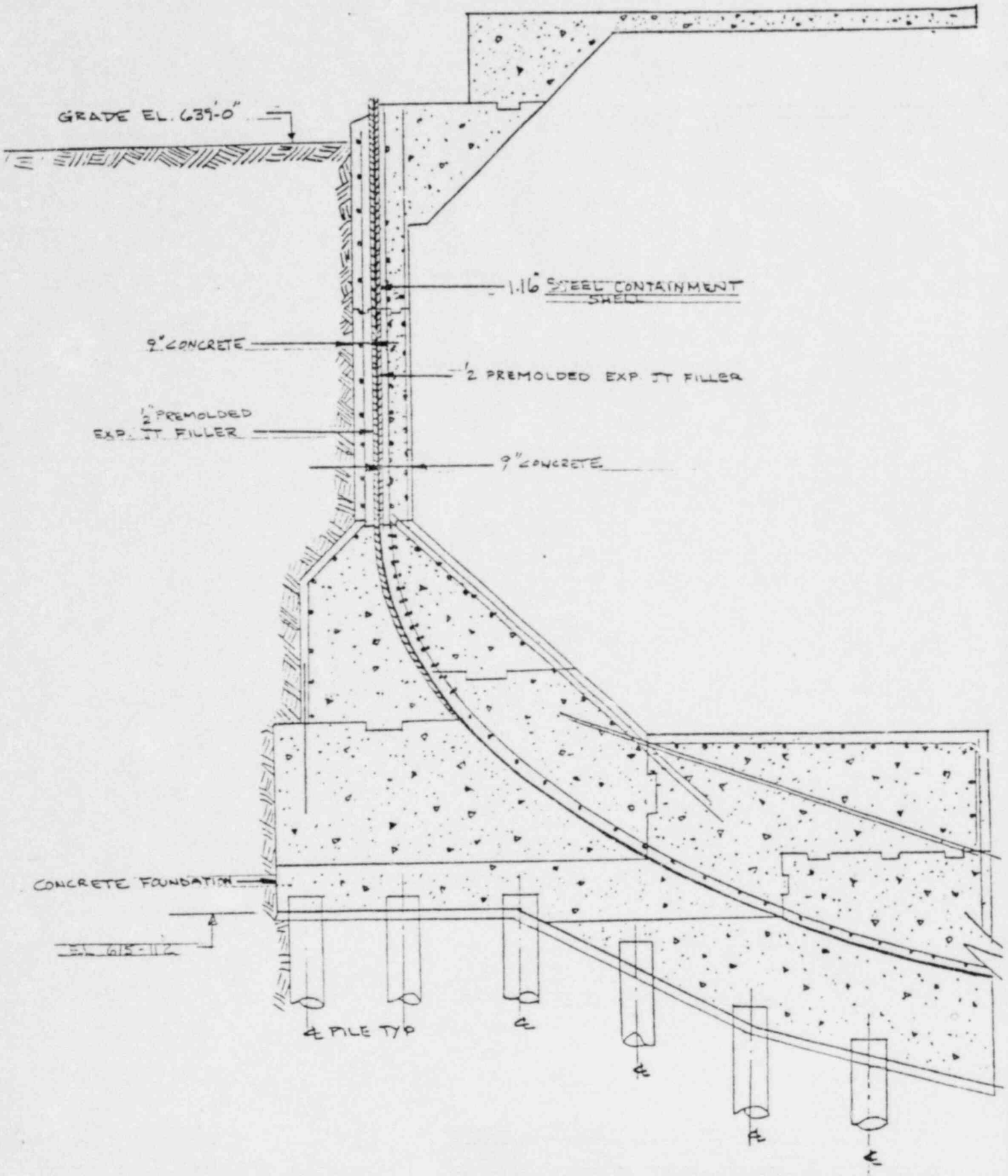


FIGURE I-8
FOUNDATION DETAILS

POOR ORIGINAL

II. Genoa Unit 3 Stack

The Genoa Unit 3 Stack was originally analyzed for seismic loading by Gulf United, and the results were reported in Reference (1). Section (A) below describes analysis methods and criteria used for this study to the extent that they can be determined. (This company is no longer in business and detailed back-up information for the analysis is not available). This structure was re-analyzed by Nuclear Energy Services in 1980 and the results of this evaluation were documented in Reference (2). Details of the analytical methods and criteria used in the recent NES study are included below in Section (B).

A) Original Study (Reference 1) by Gulf United

a) Description of Component
   Genoa III Stack

b) Modeling Techniques
   Structural Damping - 7 percent
   Mathematical Model - stick beam (See Figure II-1)
   Mass Distribution - lumped mass (29 masses)
   Model Degree of Freedom - 2-D

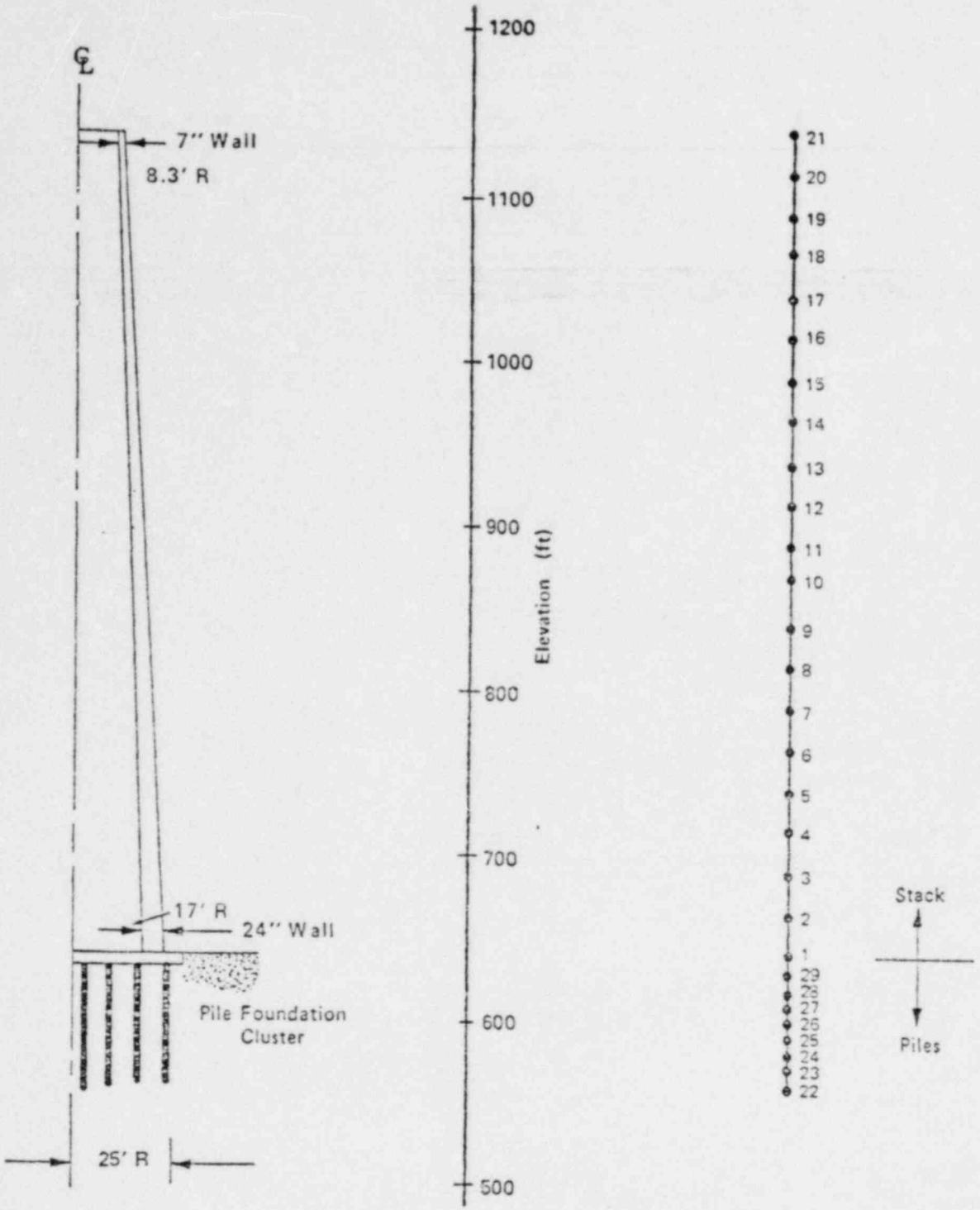
c) Seismic Analysis Method
   Dynamic Method - time history
   Selection of Significant Modes - first 10 mode up to 24.92 Hz
   Relative displacements - N/A
   Modal Combinations - N/A
   Three Component Input - one horizontal acceleration applied
   Floor Spectra Generation - N/A
   Peak Broadening - N/A
   Load Combination - N/A

d) Analysis Criteria
   Codes - not available

e) Computer Codes
   Code - SIM (no further information was presented)

Error in Assumption

According to plant drawings, there are no piles under the Genoa III stack as assumed in the Gulf United Study.



(a) Structure

(b) Stick Model Configuration

FIGURE II-1 - MODEL FOR DYNAMIC ANALYSIS OF GENOA STACK ORIGINAL GULF UNITED STUDY

B) Current (NES) Study (Reference 2)

This evaluation was made for the SSE event only (See Figure II-2 for structure description).

Structural Damping

7 percent for SSE event from NRC Reg. Guide 1.61.

Seismic Input

The site specific spectra developed for LACBWR was used for this analysis (Figure II-3). This was scaled from 5 percent damping to 7 percent damping by use of coefficients presented in NRC Reg. Guide 1.60. A three-dimensional model was used with two horizontal and one vertical input. The vertical input responses were found by using the procedure of NRC Reg. Guide 1.60 (for frequencies from 0.25 Hz to 3.5 Hz the ratio varies from 2/3 to 1. For frequencies greater than 33 Hz, maximum ground acceleration is used.

The combining of modal responses and spatial components were completed as per NRC Reg. Guide 1.92. The responses of modes up to a frequency of 35 Hz were used in the analysis.

Soil Structure

Soil-structure interaction effects were examined by the use of an inertial interaction analysis. Kinematic interactions effects were neglected. The dynamic forces applied to the structure are simply the product of the design ground motion and the mass of the structure. Since the loading is applied only on the structure, the soil is replaced by springs (impedances) and prescribed design motions are applied directly at the support for the springs. For spring constants (see Figure 11-4).

To account for any variation in the soil, a range of soil modulus were used in the analysis. The soil modulus was taken as 1000 KSF and 3000 KSF. The actual modulus is expected to be about 1500 to 1600 KSF from existing soil data.

Model

Three-dimensional lumped mass model (35 masses) as shown in Figure II-5.

No eccentricities were used in the analysis.

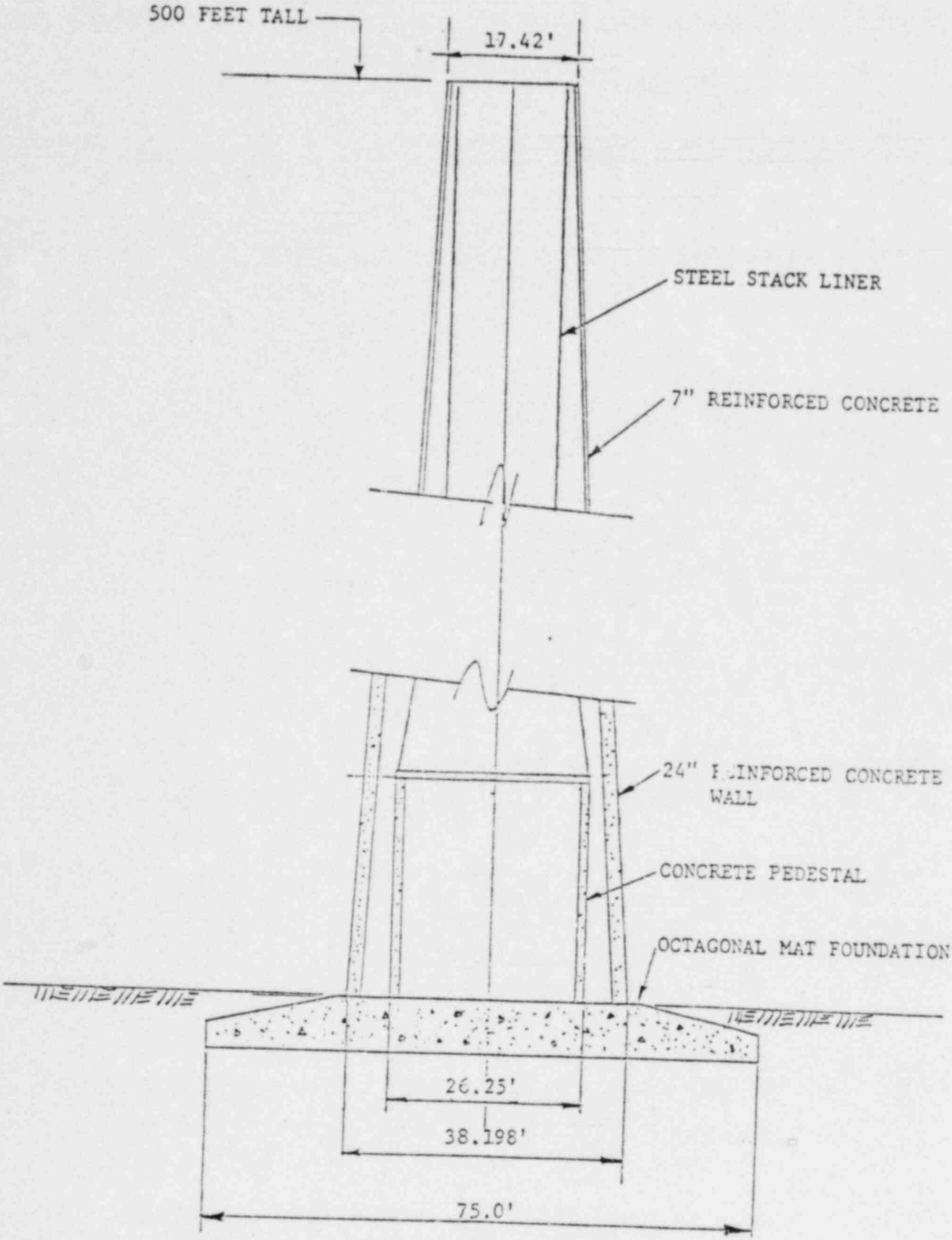


FIGURE II-? - SCHEMATIC SKETCH OF GENOA 3 STACK
(NES 1980 STUDY, REF. 2)

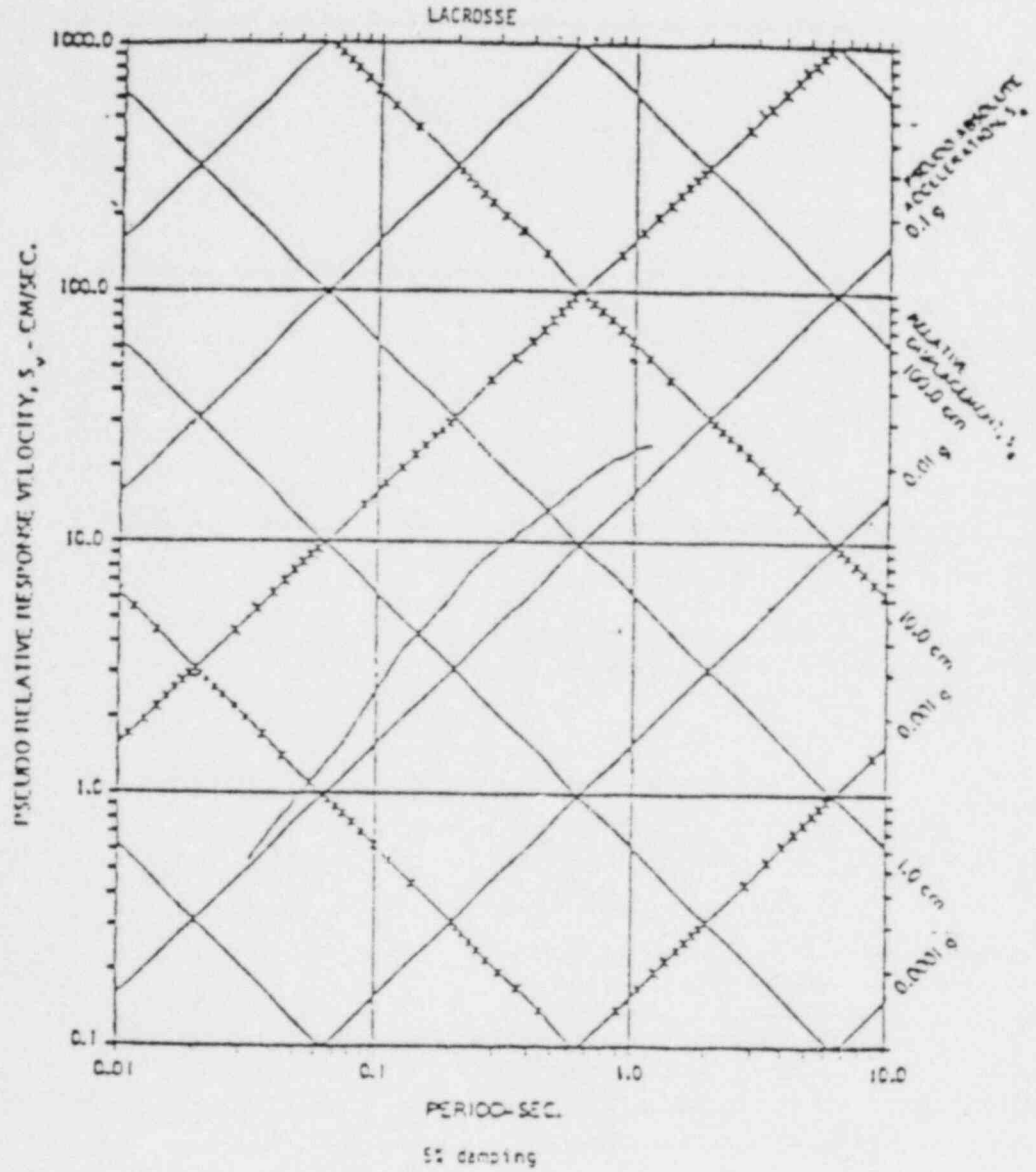


FIGURE II-3

POOR ORIGINAL

Table 10-13. Spring Constants for Rigid Circular Footing Resting on Elastic Half-Space

Motion	Spring Constant	Reference
Vertical	$k_z = \frac{4Gr_o}{1-\nu}$	Timoshenko and Goodier (1951)
Horizontal	$k_x = \frac{32(1-\nu)Gr_o}{7-8\nu}$	Bycroft (1956)
Rocking	$k_\psi = \frac{8Gr_o^3}{3(1-\nu)}$	Borowicka (1943)
Torsion	$k_\theta = \frac{16}{3}Gr_o^3$	Reissner and Sagoci (1944)

$\left(Note: G = \frac{E}{2(1+\nu)}\right)$

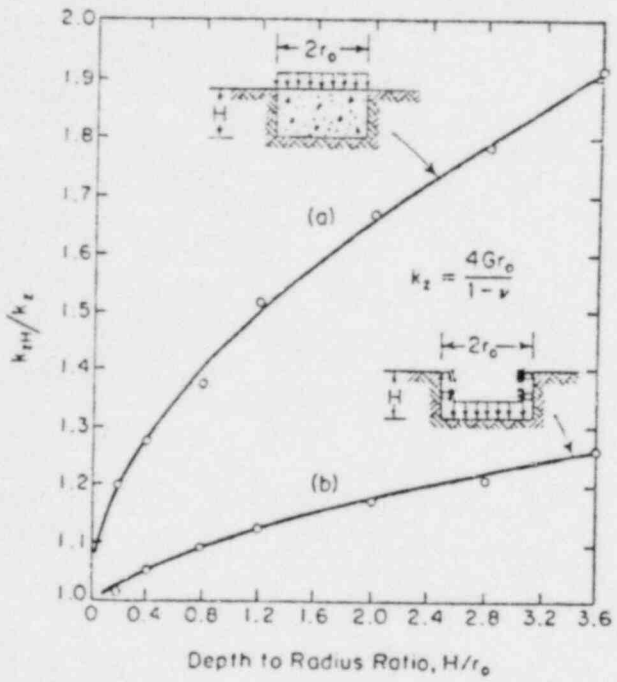


Figure 10-17. Effect of depth of embedment on the spring constant for vertically loaded circular footings (*from Kaldjian, 1969*).

FIGURE II-4 - SOIL SPRING CONSTANTS

POOR ORIGINAL

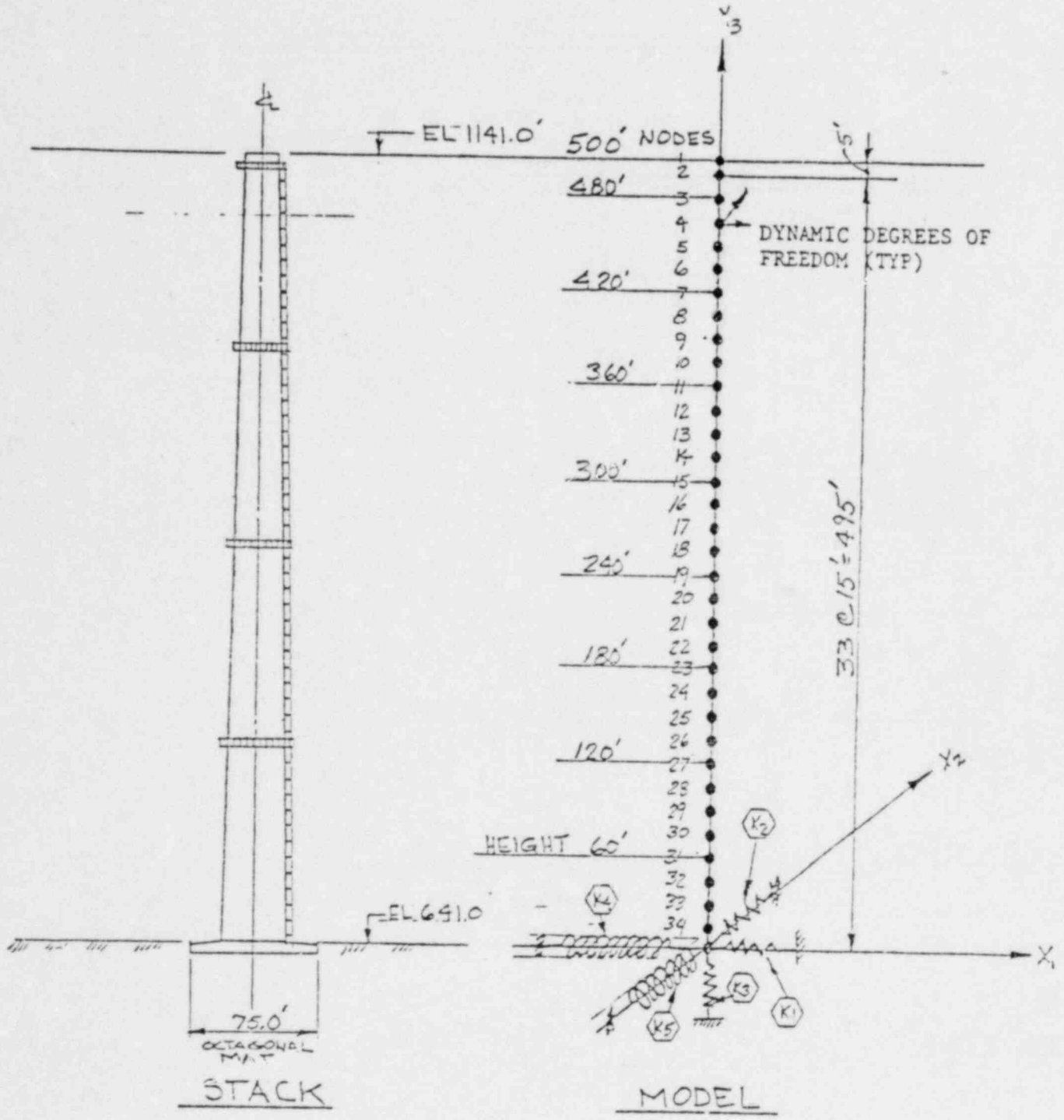


FIGURE II-5 - MATHEMATICAL MODEL OF GENOA 3 STACK

POOR ORIGINAL

Foundation

The 75' octagonal mat foundation was analyzed by using the resulting loads from the stack model. It was analyzed using a finite element model. (see Figure II-6).

Computer Analysis

The Dynamic Modeling of the Genoa III Stack was completed using MRI/STARDYNE 3(c). The following programs were used: STAR, Dynre 4, Lanczos and Post.

The Static Modeling of the 75' octagonal mat was completed using ANSYS computer program of Swanson Analysis Systems, Inc.

Loads

The following loadings were considered:

$$\text{Live Load} + \text{Dead Load} \mp \sqrt{X_1^2 + X_2^2 + X_3^2}$$

(seismic)

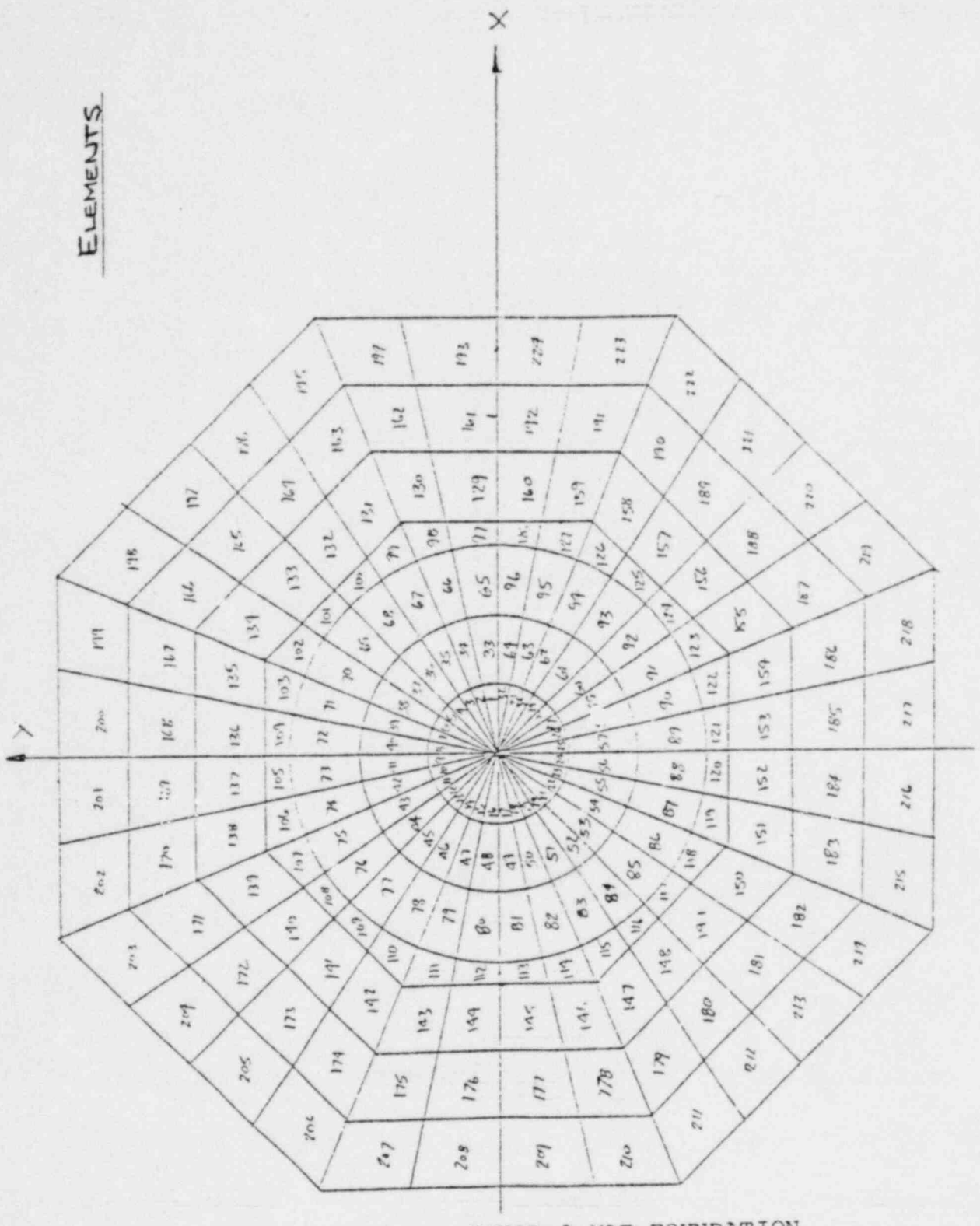


FIGURE II-6 - GENOA 3 MAT FOUNDATION
FINITE ELEMENT MODEL

POOR ORIGINAL

III. LACBWR Stack

The LACBWR stack was originally analyzed by Gulf United (Reference 1). For historical purposes, available information describing analysis methods and criteria is summarized in Section (A) below. Section (B) addresses current analyses.

A. Original (Gulf United) Study

a) Description of Components
LACBWR

b) Modeling Techniques
Structural Damping - 7 percent
Mathematical Model - stick beam
Mass Distribution - lumped mass
Model Degree of Freedom - 2-D

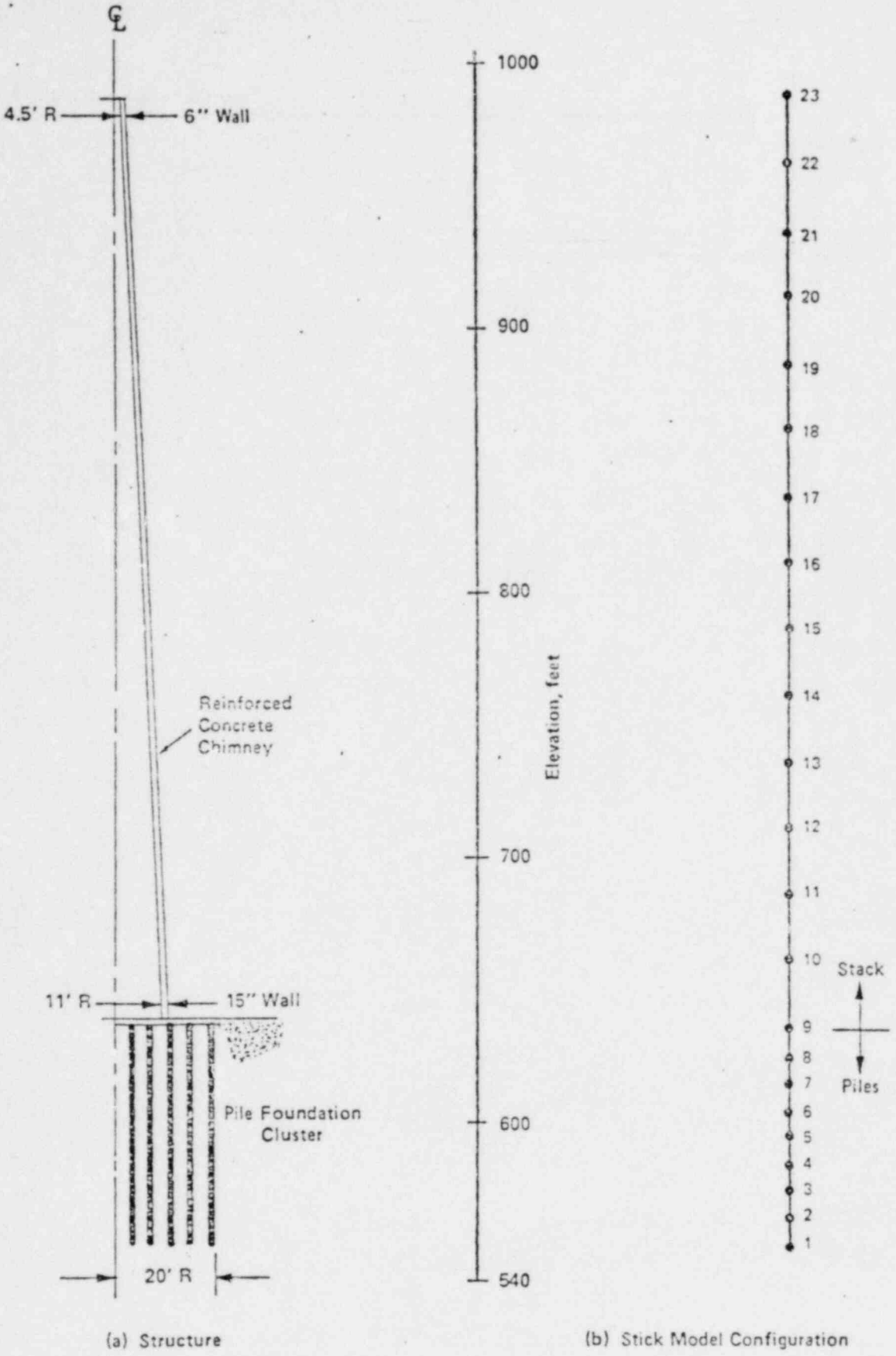
c) Seismic Analysis Method (See Figure III-1)
Dynamic Method - time history
Selection of Significant Modes - first 10 mode - 24.92
Relative Displacements - N/A
Modal Combinations - N/A
Three Component Input - One Horizontal Acceleration Applied
Floor Spectra Generation - N/A
Peak Broadening - N/A
Load Combination - N/A

d) Analysis Criteria
Codes - not available

e) Computer Codes
Code - SIM (no further information was presented)

B. Current LACBWR Stack Studies

An evaluation of the LACBWR stack will be made in accordance with the enclosed schedule. The overall analysis method will be similar to that applied to the Genoa III stack. The foundation will be treated differently, however, since the LACBWR stack has a pile foundation, unlike the Genoa III stack. As a result, foundation analysis for the LACBWR stack will be similar to that applied to the reactor containment building discussed previously.



(a) Structure

(b) Stick Model Configuration

FIGURE III-1 - MODEL FOR DYNAMIC ANALYSIS OF LACBWR STACK (FROM 1974 GULF UNITED STUDY)

POOR ORIGINAL

IV. Piping Seismic & Stress Analyses

A) Some in-containment piping systems have already been analyzed by Nuclear Energy Services, Inc. Results have been reported in References 3 through 7. A summary of results is presented in Table 2. A discussion of analysis methods, analysis criteria, and assumptions for the completed analyses is presented below.

The piping systems that were analyzed were the main steam, feedwater, recirculation, and the HPCS discharge and suction. It was realized early in the analysis that lateral support would be required, therefore, all analysis included the addition of supports where judged to be necessary.

Since the analysis of these five piping systems took place in 1974 to 1975, all seismic input was taken from the 1974 Gulf United Report (Ref. 1). Analyses were completed prior to Reg. Guide 1.92. The seismic loading on the Piping System was taken to be the absolute combination of one vertical and one horizontal event. The remaining horizontal and the vertical were then evaluated. Stresses on the pipe were expected to be within the appropriate allowable for each load condition.

The loading conditions included:

1. Dead Weight & Other Sustained Mechanical Loads
2. Internal Pressure
3. Thermal Loading
4. Seismic Loading
    (a) Seismic(OBE = ½ SSE)
    (b) Anchor Movement

The horizontal SSE acceleration spectrum used was that corresponding to the appropriate elevation in Ref. 1 (see individual report). For the OBE event, ½ SSE was used. The vertical response spectrum for the SSE loading was taken as 2/3 of the horizontal SSE ground response spectrum assuming no amplification of vertical response in the structure. For the OBE earthquake, the vertical piping response spectrum is taken as ½ of the SSE vertical response spectrum. Damping values used were 1 percent for the OBE and 2 percent for the SSE. The spectra are presented in the appendix of each report.

Loadings were combined in order to fulfill Class I or Class II ASME Criteria (EQ 8-9-10-11).

Seismically induced anchor movements were estimated by calculating low frequency displacements from the containment building response spectra at the different anchor point elevations.

Support flexibility was accounted for by the use of springs as non-rigid supports (frequency below 33 Hz). Eccentric masses were introduced in the systems to account for the weight of such items as valve controllers, operators, or hand wheels. Each piping stress report contains tables showing eccentric masses placed on the system. All snubbers will be designed to have a frequency of greater than 33 Hz.

For locations where rod hangers exist and the rod was found by analysis to have a compression force, the support was designed to be capable of resisting that compressive force without buckling.

Where supports were modified, no changes or reruns of the piping analyses were made to determine the effect of change in stiffness of the support on the pipe stresses.

B) Current Piping System Stress Analysis Efforts

NES is currently analyzing the 14" vent line from the shutdown condenser, the Manual Depressurizati . system piping and the piping for the dedicated safe shutdown system (High Pressure Service Water to Auxiliary Core Spray System).

The 1974 Gulf United Report is still being used as the source of seismic input for the ongoing piping system analyses, since NES has not yet developed new floor spectra from its three-dimensional model. The seismic input from the Gulf United Report (1974) is being used in three dimensions (two horizontal and 1 vertical). These inputs are being used in accordance with NRC Reg. Guide 1.92. Since the spectra of the Gulf United Report is more severe than the site specific spectra, NES feels that the results will remain conservative. A representative comparison will be made to ensure this fact.

All pipe supports (HPCS suction and discharge) are being designed using the results of existing analyses. The reaction forces due to the two seismic loading conditions are being added by use of SRSS techniques. This means that the reactions of the absolute additions of the vertical plus one horizontal is squared and added to the square of absolute addition of the vertical plus the remaining horizontal. The square root of that addition is then used to design the support.

III. STRUCTURAL INTEGRITY OF MECHANICAL AND ELECTRICAL COMPONENTS, PIPING AND SUPPORTS

COMPONENT DESCRIPTION	MODELING TECHNIQUES	ANALYTICAL PROCEDURE	ANALYSIS CRITERIA	COMPUTER CODES
Piping	The following techniques were utilized for each piping system analyzed. Eccentric masses Mass distribution Support flexibility Response spectrums corresponding to the following elevations were used:	A finite element dynamic analysis with X, Y, & Z spectra applied simultaneously was used to analyze each piping system. Structural damping values of 1% and 2% were used for OBE and SSE respectively.	Dynamic modal responses were combined by the SRSS method, stress limits are from ASME B&PV, Section III for classes listed.	The compute code used v PIPSD, deve ed by URS/ John Blume Associates contained c CDC cyberne systems.
Main Steam	664.5' OBE-SSE		Class - 2	
Feedwater	664.5' OBE-SSE		Class - 2	
HPCS Suction	745'-700' OBE-SSE		Class - 1	
HPCS Discharge	695' OBE-SSE		Class - 1	
Recirculation	not given OBE only		Class - 2	

V. TURBINE BUILDING

As for the other structures, the Turbine Building had been analyzed to some extent by Gulf United in 1974 (Reference 1). Section (A) below describes analysis methods and criteria used for this study to the extent that they can be determined. (This company is no longer in business and detailed back-up information for the analysis is not available.)

A) Original Study (Reference 1) by Gulf United

a) Description of Component
Turbine building

b) Modeling Techniques (see Figures V-1 thru V-3)
Structural damping - 7 percent
Mathematical model - stick beam
Mass distribution - lumped mass
Model degree of freedom - single DOF

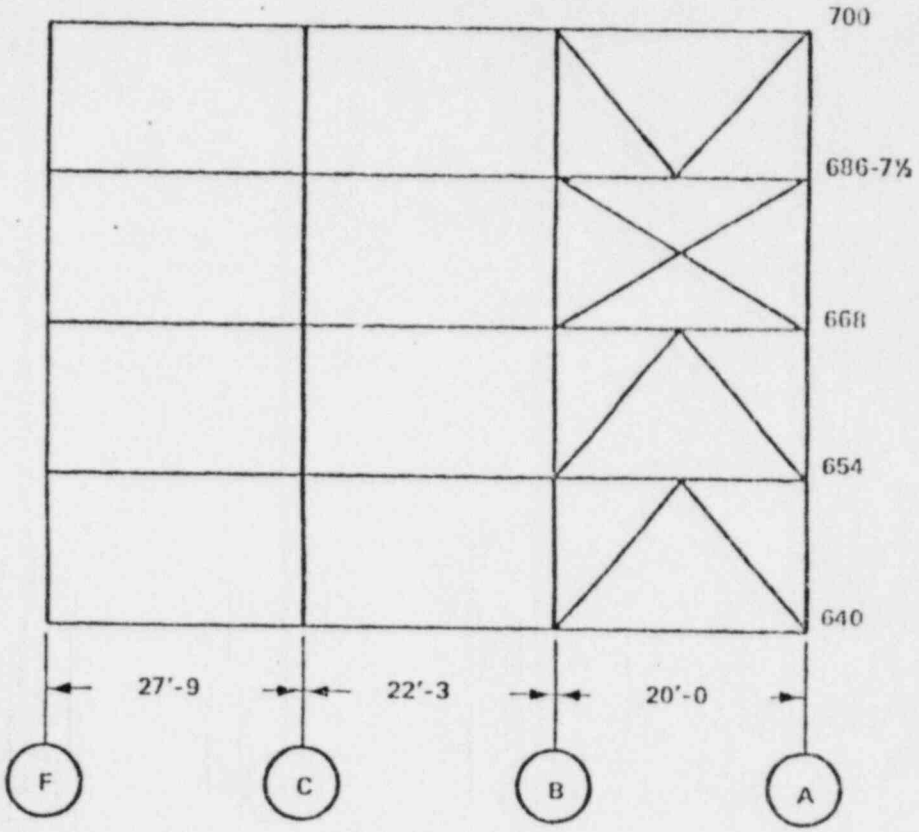
c) Seismic Analysis Methods
Dynamic method - response spectrum
Selection of significant modes - not available
Relative displacement - N/A
Modal combination - not available
Three component input - one horizontal acceleration applied
Floor spectra generation - N/A
Peak broadening - not available
Load combination - seismic only

d) Analysis Criteria
Code - ACI

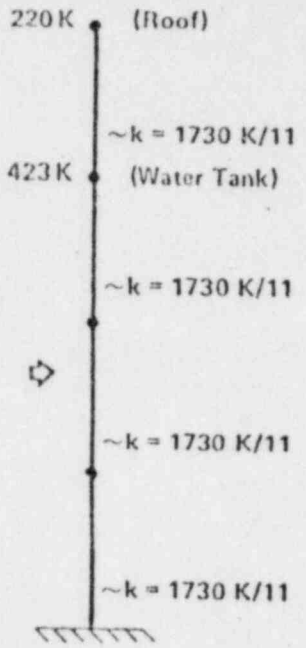
e) Computer Codes
Codes - not available

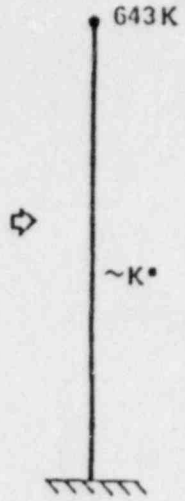
B) Additional Work to be Performed

NES has not yet analyzed the Turbine Building. NES is currently developing an approach to this analysis. It is felt that the methods used in previous (Gulf United) analyses are over-simplified and must be up-graded. Details of the proposed analysis methodology, criteria and assumptions will be made available to the NRC as soon as they become fully developed.



Column Line 1



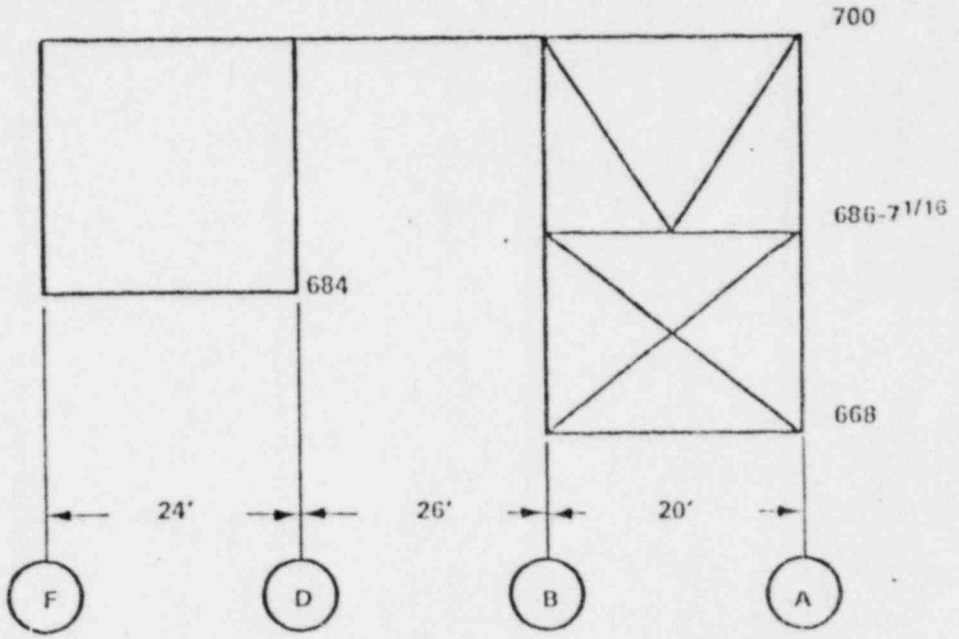


$$\frac{1}{k^*} = \Sigma\frac{1}{k} \qquad \therefore k^* = \frac{1730}{3} = 577 \text{ K/11}$$

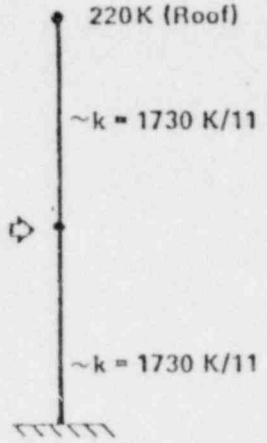
$$W^2 = \frac{k^*}{m_{total}} = 326$$

$$f = \frac{W}{2\pi} = \underline{2.9} \text{ cps}$$

FIGURE V-1 - DYNAMIC MODEL OF COLUMN LINE 1



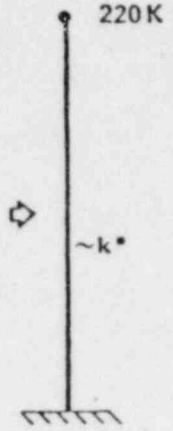
Column Line 10



$$\frac{1}{k^*} = \Sigma \frac{1}{k}$$

$$W^2 = \frac{k^*}{m_{total}} = 1528$$

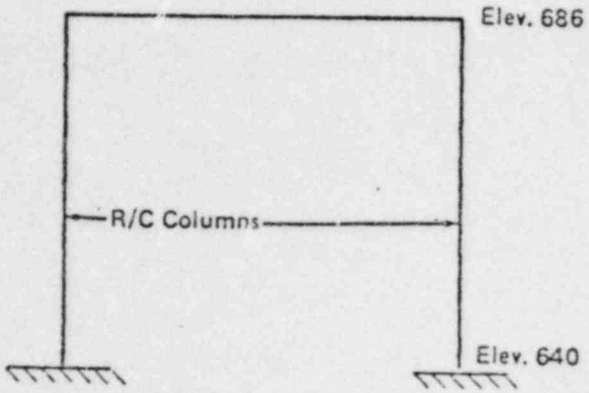
$$f = \frac{W}{2\pi} = \underline{6.2} \text{ cps}$$



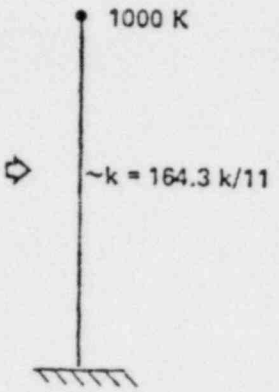
$$\therefore k^* = \frac{1730}{2}$$

$$= \underline{865} \text{ k/11}$$

FIGURE V-2 - DYNAMIC MODEL OF COLUMN LINE 10

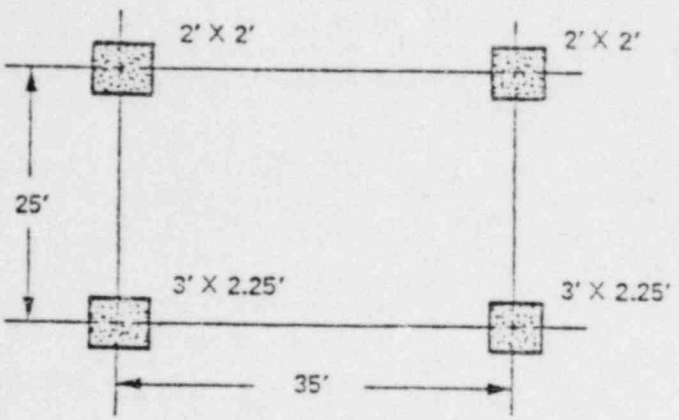


Elevation of Turbine Support



$$W^2 = \frac{k}{M} = 63.5$$

$$f = \frac{w}{2\pi} = \underline{1.27} \text{ cps}$$



Plan View of Turbine Support

FIGURE V-3 - DYNAMIC MODEL OF TURBINE SUPPORT

VI. SPENT FUEL RACKS & FUEL POOL

New, high density spent fuel racks have recently been installed and licensed. The following references should be consulted for design and analysis details:

1. Structural Analysis Design Report for the LaCrosse Boiling Water Reactor High Density Spent Fuel Storage Racks, prepared by Nuclear Energy Services, Inc., Danbury, CT (NES Report No. 81A0546, 1978).

2. Structural Analysis Report for the LaCrosse Boiling Water Reactor Spent Fuel Pool Structure, prepared by Nuclear Energy Services, Inc., Danbury, CT (NES Report No. 81A0095, 1978).

VII. "B" DIESEL GENERATOR BUILDING

Ref. "Description and Design Criteria for Diesel Generator Building and Secondary Emergency On-Site Electrical Power System LACBWR - Genoa Station - Unit 2" dated July 31, 1974 (Docket 50409-174).

This report set forth the criteria to be used for design of the "B" Diesel Generator Building. NES is attempting to learn from Sargent & Lundy Engineers the scope and results of any seismic analysis performed during the building design phase. When this information becomes available, it will be reviewed to determine if the SEP requirements have been met.

REFERENCES

1. "Seismic Evaluation of the LaCrosse Boiling Water Reactor" January 11, 1974 (Docket 50409-172) Gulf United Services.

2. "Seismic & Structural Analysis of the Genoa 3 Stack Using the NRC Site-Specific Ground Response Spectra, November 20, 1980, Nuclear Energy Services, Inc., Danbury, CT (report 81A0040).

3. "Seismic and Stress Analysis of LACBWR Feedwater Piping System", June 18, 1975, Nuclear Energy Services, Inc., Danbury, CT (report 81A0087).

4. "Seismic and Stress Analysis of LACBWR Main Steam Piping System", August 1, 1975, Nuclear Energy Services, Inc., Danbury, CT (report 81A0088).

5. "Seismic and Stress Analysis of LACBWR Recirculation Piping System", November 17, 1975, Nuclear Energy Services, Inc., Danbury, CT (report 81A0089).

6. "Seismic and Stress Analysis of the LACBWR High Pressure Core Spray Suction Line Piping System", Nuclear Energy Services, Inc., Danbury, CT (report 81A0090).

7. "Seismic and Stress Analysis of the LACBWR High Pressure Core Spray Discharge Line Piping System", May 10, 1977, Nuclear Energy Services, Inc., Danbury, CT (report 81A0091).

KEY TO ATTACHMENT 2

EXAMPLES OF TYPE SUPPORT

1. Bolted to Equipment
2. Bolted to Concrete Wall
3. Bolted to Concrete Slab
4. Bolted to Block Wall
5. Welded to Embedded Channel

REFERENCE OR STATUS

A. To Be Evaluated

B. Evaluation in Progress

C. Attachment No. 2, LAC-7484

D. To Be Modified

E. Modification Commenced

F. Intentionally Blank

G. NES Task-063

H. Test Data On File at Site

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Turbine Bldg. MSIV Drive Motor		Containment Isolation	Turbine Bldg. Grade Floor 647'	1								A
Benchboard "E"		Control Room	Turbine Bldg. Control Room 668'	3,5		Nuclear Instr. Indicators Log Count Ch. 1 43-38-804	1	C				B
						Period Ch. 1 42-38-805	1	C				
						Log Count Ch. 2 42-38-806	1	C				
						Period Ch. 2 42-38-807	1	C				
						Log N Ch. 3 42-38-808	1	C				
						Period Ch. 3 42-38-809	1	C				
						Log N Ch. 4 42-38-810	1	C				
						Period Ch. 4 42-38-811	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Benchboard "E" (Cont'd)						Nuclear Instr. Indicators	1	C				
						Power Level Ch. 5 42-38-812	1	C				
						Power Level Ch. 6 42-38-813	1	C				
						Power Level Ch. 7 42-38-814	1	C				
						Power Level Ch. 8 42-38-815	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel G		Control Room	Turbine Bldg. Control Room 668'	3,5		Nuclear Instr. Ch. 7 42-38-507	1	C				B
						Nuclear Instr. Ch. 8 42-38-508	1	C				
						Scaler Source Range Monitor Ch. 1 & Ch. 2 42-38-509	1	C				
						Radiation Monitoring Recorder 45-43-801	1	C				
						Containment Radiation Monitors 73-43-501 73-43-502 73-43-503	None	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel F		Control Room	Turbine Bldg. Control Room 668'			Nuclear Instr. AGS Channels (Rear Panel F)	1	C				B
						Containment Vessel Level Power Supply 37-42-401	1	C				
						ATWS Relay 50-42-602AT	1	C				
						ATWS Relay 50-42-604AT	1	C				
						ATWS Relay 50-42-601AT	1	C				
						ATWS Relay 50-42-712AT	1	C				
						ATWS Relay 50-42-605AT	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel E		Control Room	Turbine Bldg. Control Room 668'	3,5		Nuclear Instr. Dual Pen Rec. Power Range Ch. 7 & 8 42-38-803	1	C				8
						Reactor Water Level #2 Power Supply 50-42-401	1	C				
						Reactor Water Level #2 Remote Amplifier 50-42-303	1	C				
						A[illegible] Relay 50-42-603AT	1	C				
						Reactor Water Level Remote Amplifier 50-42-302	1	C				
						Power to Flow Square Root Converter 2A 50-37-503	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel E (Cont'd)						Power to Flow Square Root Converter 2B 50-37-504	1	C				
						Power to Flow Square Root Converter 1A 50-37-501	1	C				
						Power to Flow Square Root Converter 1B 50-37-502	1	C				
						Nuclear Instr. Dual Pen Rec. Ch. 3 & 4 42-38-801	1	C				
						Nuclear Instr. Dual Pen Rec. Wide Range Ch. 5 & 6 42-38-802	1	C				
						Reactor Flow Recorder 50-37-801	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel E (Cont'd)						Reactor Water Level #3 Power Supply 50-42-403	1	C				
						Reactor Water Level #3 Level Indicator 50-42-811	1	C				
						Reactor Water Level #1 P/S 47-85-406 (Dist. Panel)	1	C				
						Reactor Water Level #2 Indicator 50-42-802	1	C				
						Reactor Water Level #1 Rec. 50-42-801	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Safety Panel	Panel D	Reactor Protection	Turbine Bldg. Control Room 668'	3,5		Rx Water Level #1 Safety Drawer 50-42-501	1	C				B
						Rx Water Level #2 Safety Drawer 50-42-502	1	C				
						Rx Pressure #1 Safety Drawer 63-35-501	1	C				
						Rx Pressure #2 Safety Drawer 63-35-302	1	C				
						P/F #1 Safety Drawer 50-37-505	1	C				
						P/F #2 Safety Drawer 50-37-506	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel D		Control Room	Turbine Bldg. Control Room 668'	3,5		Alternate Core Spray Low Flow Alarm 38-37-601	1	C				9
						ACS Flow Indicator 38-37-801	1	C				
						ACS AC Valve Motor Control Switch	1	C				
						ACS DC Valve Motor Control Switch	1	C				
						Containment Vessel Internal Pressure Indicator 37-35-819	1	C				
						Containment Vessel Internal Pressure Indicator 37-35-810	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Panel D (Cont'd)						Containment Vessel Internal Pressure Power Supply 37-35-401	1	C				
						Containment Vessel Liquid Level Selector Switch 37-31-701	1	C				
						Containment Vessel Liquid Level Indicator 37-43-801	1	C				
Reactor Plant Battery Charger	74-92-002	Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	3	D	Breakers, Relay Meters	1	C				SK-5101-063 -7
Reactor Plant Batteries	74-91-001	Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	Sitting On Battery Rack	No				Emergency Lamp	1	A	SK-5101-063 -6

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Reactor Plant Battery Rack		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	3	E							SK-5101-063 -6

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Generator Plant Battery Charger		Essential Power	Turbine Bldg. Electrical Equipment Room 654'	3	D	Input & Output Breakers	1	C				SK-5101-063 -7
Generator Plant Batteries		Essential Power	Turbine Bldg. Electrical Equipment Room 654'	Sitting On Battery Racks	No							SK-5101-063 -2
Generator Plant Battery Racks		Essential Power	Turbine Bldg. Electrical Equipment Room 654'	None	E							SK-5101-063 -2

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Reactor Relay Cabinet		Reactor Protection	Turbine Bldg. Electrical Equipment Room 654'	3	D	Relays	1	C				SK-5101-063 -1
Turbine Bldg. MCC 1A		Essential Power	Turbine Bldg. Electrical Equipment Room 654'	3	D	Rx Plant Battery Charger Bkr.	1	C	Ladder to BRD			SK-5101-063 -1
						480-120 Volt Breaker	1	C				
						G.P. Main Steam Shutoff Valve Breaker 64-11-003	1	C				
						Control Room Emergency Lighting Bkr.	1	C				
						ACS AC M.O. Valve Breaker 30-30-001	1	C				
						Turbine Bldg. 120-Volt Dist. Panel	1	C				

POOR ORIGINAL

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Turbine Bldg. MCC 1A (Cont'd)						Turbine Bldg. 120-Volt Reg Dist. Panel	1	C				
Turbine Bldg. 120-Volt Bus Aux. Dist. Panel		Essential Power	Turbine Bldg. Electrical Equipment Room 654'	1								R

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT O
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
1B Non-Interruptible Bus Breakers Panel		Essential Power	Electrical Equipment Room El. 654'	1	D	Tie to 1B Static Inverter Breaker	1	C				SK-5101-063 -1
						Main Control BBD "E"	1	C				
						Main Control BD. D Breaker W/D 41-503704	1	C				
						Radiation Monitor Panel G3 Breaker	1	C				
						Safety System Panel D2 (41-503764) (41-503901) Breaker	1	C				
						Nuclear Instr. Panel G1 (41-503906) Breaker	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Rx Plant 125-Volt DC Bus	78-87-001	Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	1	D	Main Control BBD "D" Breaker 41-503628 41-503701	1	C				SK-5101-063 -1
						480-Volt Ess. Switchgear Feed Breaker 41-503666	1	C				
						ACS DC Valve Breaker 41-503828 41-503775	1	C				
						Station Under Voltage Relay. Breaker 41-503634	1	C				
						Inverter 1A Non-Interruptible Bus Breaker 41-503677	1	C				
						MSIV & Bypass	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Reactor Plant 125-Volt DC Bus (Cont'd)						Reactor Plant Battery to Reactor Plant Bus	1	C				
						Reactor Plant Charger to Reactor Plant Battery	1	C				
IC Static Inverter		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							B
Undervoltage Relay Cabinet		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	3	D	Undervoltage Relays for 480-Volt Ess. 1A & 1B	1	C				SK-5101-063 -1
						480-Volt Turbine Bldg. MCC 1A	1	C				

POOR ORIGINAL

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Generator Plant 125-Volt DC MCC		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	3	D	Aux. Dist. Panel Breaker	1	C				SK-5101-063 -1
						Control Power #1 Breaker	1	C				
						Control Power #2 Breaker	1	C				
						BBD "D" Breaker	1	C				
						3 Breakers for C.B. Control Power	1	C				
						Relay Panel	1	C				
						Gen. Battery to Gen. Plant 125-Volt DC Bus	1	C				
						Gen. Battery Charger to Gen. 125-Volt DC Bus	1	C				
						Gen. Battery Charger to Gen. Battery	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Aux. Dist. Panel for 125-Volt DC Gen. Plant Bus		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	4		IC Static Inverter Bkr.	1	C				B
						Gen. Plant Batteries Breaker	1	C				
						Gen. Plant Battery Charger & Associated Breakers	1	C				
						Diesel Bldg. Protective Relays	1	C				
Solatron For Turbine Bldg. Reg Bus	74-81-001	Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	3	No							P
Transformer For Turbine Building 120-Volt Bus 480-240/120 Volt	78-80-001	Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							P

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
1A 1 KVA Inverter		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							G
1A Inverter Input & Output Breakers		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							G
1A Inverter Meter Panel		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							G
120-VAC Non-Interruptible Bus 1A		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							C,G
120-VAC Non-Interruptible Bus 1A Fuse Panel		Essential Power	Turbine Bldg. Electrical Equipment Room El. 654'	2	No							C,G

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
1B Emergency Diesel Generator	78-83-002	On-Site Emergency Power	1B Diesel Bldg. El. 641'	3					Fuel Oil Tank	3		B
									Compressed Air Bottles (8)	1		
									Battery Charger 74-91-005	4		
									Relay Enclosure	4		
1B Diesel Generator Control Panel	78-89-001	On-Site Emergency Power	1B Diesel Bldg. El. 641' D.G. Room	5		Relays & Controls	1	C				B
1B Emergency Diesel Gen. Starting Batteries & Racks	78-83-902	On-Site Emergency Power	1B Diesel Generator Bldg. El. 641'	3								B

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I... OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
480-Volt Ess. Bus 1B		On-Site Emergency Power	1B Diesel Generator Bldg. El. 641'	5		1B D.G. Output Breaker (74-79-044) 452 EGB	1	C				B
						Inter Bus Tie 452 TBB Bkr. 74-77-043	1	C				
						Emergency Core Spray Pump 1B 452 ECCB Bkr. (74-77-013)	1	C				
						480-Volt Diesel Bldg. 1B Feed MCC 452 DB Breaker 74-77-045	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
480-Volt Diesel Bldg. 1B MCC		On-Site Emergency Power	1B Diesel Generator Bldg. El. 641'	5		Diesel Bldg. Battery Charger Bkr. 74-32-061	1	C				B
						Diesel Engine Radiator Fan Breaker 78-32-004	1	C				
						Diesel Bldg. Uninterruptible Supply 74-32-062	1	C				
						Diesel Bldg. Distribution Transformer 74-32-060	1	C				
						Distribution Panel 74-80-004	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
1B Static Inverter		Essential Power	1B Diesel Generator Bldg. El. 641'	3,5		Transformer Relay & Controls	1	C				R
1B Diesel Building Standby Batteries		Essential Power	1B Diesel Generator Bldg. El. 641'	3								B
1B Diesel Building Battery Charger		Essential Power	1B Diesel Generator Bldg. El. 641'	3,5		Transformer Relays & Controls	1	C				B
125-VDC Diesel Bldg. Main Distr. Bus		On-Site Emergency Power	1B Diesel Generator Bldg. El. 641'	5		1B Static Inverter Bkr. 74-32-063	1	C				R
						DC Control Power Ess. Switchgear 1B Breaker 74-32-063	1	C				

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
125 VDC Diesel Bldg. Main Dist. Bus (Cont'd)						D.G. Control Panel Feed Breaker 74-32-068	1	C				
						D.G. Bldg. Engine Gen. Control Crt. 74-32-064	1	C				
						Diesel Bldg. Main Battery Feed 74-32-070	1	C				
						Diesel Bldg. Main Charger Feed 74-32-066	1	C				
						Diesel Bldg. Battery/ Charger Tie 74-32-065	1	C				
125 VDC Dist. Panel		Emergency Power	1B Diesel Bldg. El. 641'	1		Breakers	1	C				

POOR ORIGINAL

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
480-Volt Ess. Bus 1A		Essential Power	Turbine Bldg. Penetration Room El. 640'	3	Yes	Feed Breaker 452 EGA 78-79-001	1	C				SK-5101-063 -4
						1A Emergency Core Spray Pump Breaker 452 ECC A 74-77-012	1	C				
						Turbine Bldg. MCC 1A Feed Breaker 74-77-011	1	C				
						Inter Bus Tie Breaker 452 TBA	1	C				
ACS Valve Motor	38-30-001 (AC)	Alternate Core Spray	Turbine Bldg. Mezz. Level 654'	3								R
ACS Valve Motor	38-30-002 (DC)	Alternate Core Spray	Turbine Bldg. Mezz. Level 654'	3								R

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
ACS Valve DC Motor Starter	For 38-30-002	Alternate Core Spray	Turbine Bldg. Mezz. Level 654'	2								A
1A Emergency Diesel Generator	78-83-001	On-Site Emergency Power	Turbine Bldg. El. 640'	3	Yes	Output Breaker 78-31-701	1	C	Fuel Oil Day Tank	4	B	Facility Change 78-81-3
						Battery Charger	1	C				
1A Diesel Generator Starting Battery	78-83-901	On-Site Emergency Power	Turbine Bldg. El. 640'	Strapped to Rack								B
1A Diesel Generator Starting Battery Rack		On-Site Emergency Power	Turbine Bldg. El. 640'	2								B
Containment Bldg. Electrical Penetration		Containment	Containment Wall Penetration 640'	Welded to Shell	No							B

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Offgas Vent Header Solenoid Valve	55-25-014	Containment Isolation	Turbine Bldg. Pipe Tunnel 635'		No							H
Containment Bldg. Pressure Switches	37-35-701 37-35-702 37-35-703	Containment Building	Turbine Bldg. Penetration Room 640'	1 1 1	No No No							H H H
ACS Flow Transmitter	38-37-301	Alternate Core Spray	Turbine Bldg. Mezz. 654'	2								A
Containment Vessel Internal Pressure Transmitter	37-35-301	Containment Vessel Monitoring	Turbine Bldg. Pipe Tunnel 629'	3	No							H
Containment Vessel Internal Pressure Transmitter	37-35-302	Containment Vessel Monitoring	Turbine Bldg. Pipe Tunnel 629'	3	No							H

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Containment Vessel Internal Level Transmitter	37-42-301	Containment Vessel Monitoring	Turbine Bldg. Pipe Tunnel 629'	3	No							H
Containment Vessel Internal Level Transmitter	37-42-302	Containment Vessel Monitoring	Turbine Bldg. Pipe Tunnel 629'	3	No							H
Containment Ventilation Solenoid Valve	73-25-016	Containment Isolation	Containment 643'	1	No							H
Containment Ventilation Solenoid Valve	73-25-017	Containment Isolation	Containment 643'	1	No							H
Containment Ventilation Solenoid Valve	73-25-018	Containment Isolation	Containment 643'	1	No							H

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Containment Ventilation Solenoid Valve	73-25-019	Containment Isolation	Containment 643'	1	No							H
Containment Ventilation Solenoid Valve	73-25-003	Containment Isolation	Containment 643'	1	No							H
Containment Ventilation Solenoid Valve	73-25-008	Containment Isolation	Containment 643'	1	No							H
P/T 1A Transmitter	50-37-301	Reactor Protection	Containment 633'	2	No							H
P/T 1B Transmitter	50-37-304	Reactor Protection	Containment 633'	2	No							H
P/T 2A Transmitter	50-37-302	Reactor Protection	Containment 633'	2	No							H
P/T 2B Transmitter	50-37-303	Reactor Protection	Containment 633'	2	No							H

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
MISV Bypass Solenoid Valve	64-25-002	Containment Isolation	Containment 633'	1	No							H
MSIV Bypass Solenoid Valve	64-25-003	Containment Isolation	Containment 633'	1	No							H
Solenoid for Decay Heat Isolation Valve 56-25-001	56-25-002	Containment Isolation	Containment 633'	1	No							H
Reactor Offgas Solenoid	55-25-013	Containment Isolation	Grade Floor Containment 643'	2	No							H
Reactor Offgas Solenoid	55-22-022	Containment Isolation	Grade Floor Containment 643'	2	No							H
Reactor Water Level #1 Transmitter	50-42-302	Reactor Protection	Containment 659'	2								R

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Reactor Water Level #3 Transmitter	50-42-306	Reactor Protection	Containment 659'	2								A
Reactor Water Level #2 Transmitter	50-42-303	Reactor Protection	Containment 659'	2								A
Radiation Monitor	73-43-201	Containment Isolation	Containment 667'	None								A
Radiation Monitor	73-43-202	Containment Isolation	Containment 667'	None								A
Radiation Monitor	73-43-203	Containment Isolation	Containment 667'	None								A
MSI. Solenoid	61-22-005	Hydraulic Valve Accumulator	Containment Grade 643'	1	No							H

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

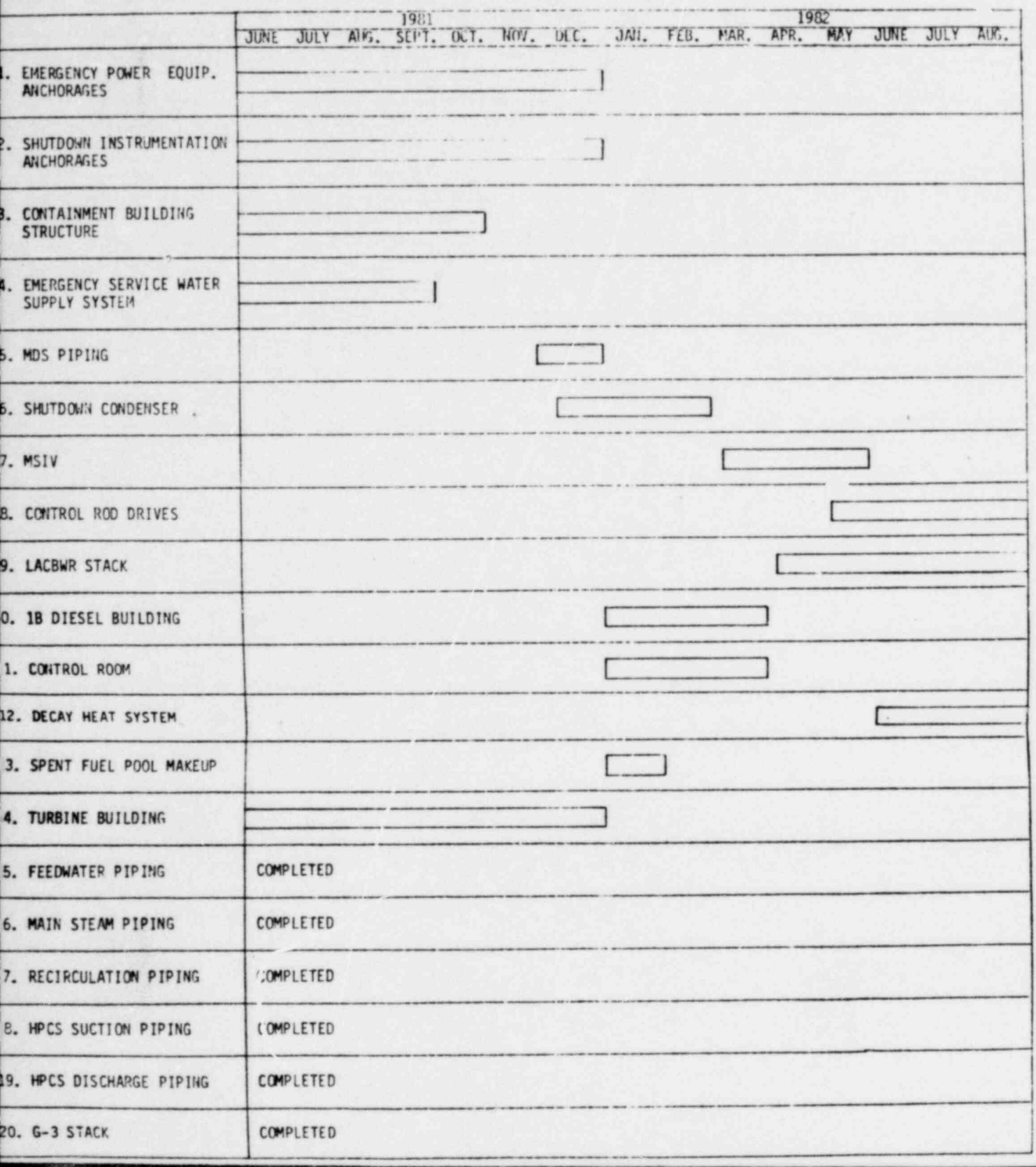
EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
HPCS Motor (1A)	53-06-001	High Pressure Core Spray	Containment 667'	3								B
HPCS Motor (1B)	53-06-002	High Pressure Core Spray	Containment 667'	3								B
LPCS Inlet to Reactor Solenoid Valve	53-25-005	Low Pressure Core Spray	Containment Approx. 672'	2	No							H
MOS Solenoid	62-25-015	Manual Depressuri-zation	Containment Approx. 714'	1	No							H
MOS Solenoid	62-25-016	Manual Depressuri-zation	Containment Approx. 714'	1	No							H
Nuclear Instr. Detectors, Cables, & Junction Boxes Ch. 1 thru 8		Reactor Protection	Containment	1,2								A

SUMMARY OF INVESTIGATION OF ANCHORAGE AND SUPPORT OF
SAFETY RELATED ELECTRICAL EQUIPMENT AND ITEMS THAT MAY DAMAGE THIS EQUIPMENT

EQUIPMENT NAME	EQUIPMENT I.D.	SYSTEM IN WHICH INSTALLED	LOCATION BLDG. & ELEV.	TYPE OF SUPPORT	WAS ANCHORAGE MODIFIED SINCE 1/1/80	INTERNALLY ATTACHED COMPONENTS			ITEMS THAT COULD POTENTIALLY INTERACT WITH THIS EQUIPMENT			I.D. OF DOCUMENT SUPPORTING CONCLUSION
						EQUIPMENT NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	NAME & I.D.	TYPE OF SUPPORT	WAS SUPPORT EVAL.'D	
Containment Ventilation Solenoid Valve	73-25-004	Containment Isolation	Containment 643'	1	No							H
Containment Ventilation Solenoid Valve	73-25-007	Containment Isolation	Containment 643'	1	No							H

ATTACHMENT 3

ANALYSIS SCHEDULE



ATTACHMENT 4

MODIFICATION SCHEDULE

	1981	1982			1983				1984			
	JULY	OCT.	JAN.	APR.	JULY	OCT.	JAN.	APR.	JULY	OCT.	JAN.	APR.	JULY	OCT.
1. EMERGENCY POWER EQUIP. ANCHORAGES														
2. SHUTDOWN INSTRUMENTATION ANCHORAGES														
3. CONTAINMENT BUILDING * STRUCTURE														
4. EMERGENCY SERVICE WATER SUPPLY SYSTEM														
5. MDS PIPING														
6. SHUTDOWN CONDENSER														
7. MSIV*														
8. CONTROL ROD DRIVES														
9. LACBWR STACK*														
10. 1B DIESEL BUILDING*														
11. CONTROL ROOM														
12. DECAY HEAT SYSTEM														
13. SPENT FUEL POOL MAKEUP														
14. TURBINE BUILDING*														
15. FEEDWATER PIPING														
16. MAIN STEAM PIPING														
17. RECIRCULATION PIPING														
18. HPCS SUCTION PIPING	COMPLETED													
19. HPCS DISCHARGE PIPING														
20. G-3 STACK*														