



**Consumers
Power
Company**

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August 1, 1979

Mr James G Keppler
Office of Inspection and Enforcement
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - IE BULLETIN 79-14

Item 1 of IE Bulletin 79-14 (Seismic Analyses for As-Built Safety-Related Piping Systems) requires response by August 1, 1979. Consumers Power Company's response is attached. Along with our response is a set of drawings which will be distributed as follows:

1 Set to Region III

1 Set to Office of Inspection and Enforcement, Washington, DC

This is in accordance with telephone instructions from Mr Boyd of Region III on July 27, 1979.

David P Hoffman (Signed)

David P Hoffman
Assistant Nuclear Licensing Administrator

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement

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Attachment 1

Item 1 of IE Bulletin 79-14

Identify inspection elements to be used in verifying that the seismic analysis input information conforms to the actual configuration of safety-related systems. For each safety-related system, submit a list of design documents, including title, identification number, revision and date, which were sources of input information for the seismic analyses. Also, submit a description of the seismic analysis input information which is contained in each document. Identify systems or portions of systems which are planned to be inspected during each sequential inspection identified in Items 2 and 3. Submit all of this information within 30 days of the date of this bulletin.

Response

I. INSPECTION ELEMENTS

Paragraph 1 of IE Bulletin 79-14 requests "identification of inspection elements to be used in verifying that the seismic analysis input information conforms to the actual configuration of safety-related systems."

A two-stage program is scheduled. The first stage is inspection of normally accessible nonredundant systems and one set of redundant systems. If no significant deviations are found, this will be reported and the second stage (inspection of the remainder) may not be completed.

The inspection elements are identified as follows:

A. FOR PIPING SYSTEMS OVER 2 INCHES

1. Survey the actual installed piping geometry, supports (location, function and clearance), valves and valve operators, including type, location and weight to verify that these items conform to design documents. Piping geometry will be compared with fabricator isometrics while supports, valves and operators will be compared with fabricator drawings.

A variety of inspection methods will be used, such as measuring tape (or similar measuring equipment) for piping geometry, visual comparison of piping supports with the support drawing, etc. Insulation will not be removed to facilitate inspection.

2. Compare the inputs to seismic analysis with composite drawings and with fabricator drawings.

B. FOR PIPING SYSTEMS 2 INCHES AND UNDER

1. These piping systems were installed to criteria designating support location; ie, the chart method as opposed to computer analysis.

The chart method is conservative; therefore, 2-inch and under piping is excluded from this response and evaluation.

II. DESIGN DOCUMENTS

Paragraph 1 of IE Bulletin 79-14 requests that a list of design documents, including title, identification number, revision and date, which were sources of input information for the seismic analysis for each safety-related system, be provided. Also requested is a description of the seismic design analysis input information which is contained in each document. The following is provided:

A. PIPING GEOMETRY

Computer seismic analysis was performed utilizing the composite area drawings listed in Appendix A.

B. SEISMIC RESPONSE SPECTRA

Appropriate floor response spectra were developed and utilized in analysis of safety-related piping systems. These spectra are being provided to the NRC staff as part of the systematic evaluation program and, therefore, are not included.

C. PIPING AND FITTING SCHEDULES

Data on piping and fitting schedules are listed in Document 5935-M-259, Revision 9 (12-20-78), "Piping Class Summary." Insulation information is also included in this document.

D. PRESSURES AND TEMPERATURES

Data on pressure and temperatures is listed in Document 5935-M-260, Revision 7 (10-20-78), "Piping Class Sheets."

E. SUPPORT, VALVE AND VALVE OPERATOR DATA

Weights, type and other information related to pipe supports, valves and valve operators was taken from various Vendor and Owner drawings. For example, valve outline drawings received from valve manufacturers contain the valve weight, operator weight and dimensions of operators. Support drawings show the rigidity and load capability of pipe supports. This information is on file.

III. IDENTIFICATION OF SYSTEMS

Applicable piping in the safety systems identified by the Palisades FSAR, Appendix A, will be evaluated except as follows:

- A. Radioactive waste treatment piping evaluation will be confined to the gaseous system with the exception of a portion of the liquid discharge release line, plus related containment penetrations.

- B. Plant instrument air piping evaluation will be confined to the high-pressure air-operated valve system and containment penetrations.

Appendix B of this response lists the system drawings which include the specific lines being evaluated.

IV. SCHEDULE FOR INSPECTION OF SYSTEMS

Appendix B lists those systems which have portions of seismic piping. Appendix B also categorizes inspection of that portion of the system which has seismic piping as follows:

Category A - Inspection of *normally accessible redundant portions will be completed by August 31, 1979. The remainder of seismic piping will be completed by October 30, 1979.

Category B - Seismic piping portion of the system not *normally available. Inspection will be completed by October 30, 1979.

Category C - Nonredundant system. Inspection of *normally accessible seismic piping will be completed by August 31, 1979. The remainder of the system will be inspected by October 30, 1979.

*Normally accessible is defined (for these purposes) as systems that are outside containment in radiation fields of less than 100 mr/h and less than 80% of maximum permissible airborne concentration.

The Palisades Nuclear Plant is now scheduled for a refueling outage beginning in September 1979. The October 30, 1979 date will be extended to coincide with the end of the refueling outage, if the outage ends after October 30, 1979.

APPENDIX A

PIPING COMPOSITE DRAWINGS FOR PALISADES

<u>Drawing Number</u>	<u>Revision</u>	<u>Date</u>	<u>Title</u>
M-16	12	4- 6-79	Area Plan of El 590'-0"
M-17	10	10-22-74	Area 1 Plan of El 607'-0"
M-18	9	6- 8-77	Area 1 Plan of El 649'-0"
M-19	7	10-22-74	Area 1 Plan of El 700'-0"
M-20	9	8-11-78	Area 1 Section A-A Lower
M-22	8	10-22-74	Area 1 Sections B-B and C-C
M-24	12	8-29-78	Area 1 Sections F-F, G-G and H-H
M-25	15	6- 8-79	Area 2 Plan of El 570'-0" (M-634)
M-26	12	1-26-79	Area 2 Plan of El 590'-0" (M-635)
M-27	12	3-14-79	Area 2 Plan of El 602'-0" (M-636)
M-28	12	11-14-78	Area 2 Plan of El 611'-0" (M-637)
M-29	11	11-14-78	Area 2 Plan of El 625'-0"
M-31	14	6- 8-79	Area 2 Sections
M-34	6	10-22-74	Area 2 Sections
M-38	23	9-14-78	Area 3 Plan of El 590'-0" (M-699)
M-39	20	3- 5-79	Area 3 Plan of El 607'-0"
M-40	23	6- 8-79	Area 3 Plan of El 625'-0" (M-645)
A-42	26	8-30-78	Area 3 Section
M-43	11	10-22-74	Area 4 Plan of El 590'-0"
M-52	14	1-24-78	Area 6 Plan of El 570'-0" and Sections
M-59	8	7-13-77	Area 7 Plan of El 590'-0" and Sections
M-61	7	8-22-78	Area 8 Plan of El 590'-0"
M-63	11	9-15-76	Area 9 Plan and Section
M-65	10	10-22-74	Piping Drawing Main Steam System
M-73	9	10-22-74	Underground Piping Turbine Building
M-634	2	10-30-74	Area 2 Plan of El 570'-0" (M-25)
M-635	11	1-26-79	Area 2 Plan of El 590'-0" (M-26)
M-639	5	1-26-79	Area 2 Sections
M-645	4	10-30-78	Area 3 Plan of El 625'-0" and Sections

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APPENDIX B

SYSTEM DRAWINGS, DESCRIPTION AND INSPECTION CATEGORY

Fifteen copies of drawings are being provided to facilitate NRC review. These drawings have the system name and "MEKP" prefix prior to the numerical designation; eg, MEKP-201 shows the safety piping to be inspected for the Primary Coolant System, P&I M-201. The MEKP series of drawings are being used for evaluation per IE Bulletin 79-02 as well as IE Bulletin 79-14. Also, the MEKP series drawings denotes 2-inch and under piping as safety-related; however, 2-inch and under piping is excluded from the evaluation being performed for IE Bulletin 79-14.

<u>Drawing</u>	<u>System Description</u>	<u>Inspection Category</u>
M-201	Primary Coolant System	B
M-202	Chemical Volume Control	A
M-203 and M-204	Safety Injection, Containment Spray Shutdown Cooling	A
M-205	Main Steam and Auxiliary Turbine System	A
M-207	Feedwater and Condensate System	A
M-208	Service Water System	A
M-209	Component Cooling Water System	A
M-210	Radwaste Treatment System - Clean	C
M-211	Radwaste Treatment System - Dirty and Gaseous	C
M-212	Service and Instrument Air	C
M-213	Circulating Water, Screen Structure Chlorination and Fire System	A
M-214	Lube Oil, Fuel Oil and Diesel Generator	A
M-215	Plant Heating System	A
M-218	HVAC System	A
M-219	Sampling System	C

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<u>Drawing</u>	<u>System Description</u>	<u>Inspection Category</u>
M-220	Makeup Water, Domestic Water and Chemical Injection	C
M-221	Spent Fuel Pool Coolant and Shield Cooling System	A
M-222	Miscellaneous Gas Supply System	C
M-224	Gas Analyzing System	C
M-225	High-Pressure Air-Operated Valves	C
M-226	Steam Generator Blowdown Modification	C
M-650	Radwaste Evaporator System - Clean Wastes	C
M-651	Radwaste Evaporator System - Miscellaneous Wastes	C

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