

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

October 29, 1979

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Oconee Nuclear Station
Docket No. 50-287

Dear Mr. O'Reilly:

Please find attached a partial response to Items 2 and 3 of IE Bulletin 79-14 (Revision 1, Supplements 1 and 2) with regard to Oconee Unit 3. This partial response is provided at the request of members of your staff to facilitate their evaluation of Duke's ongoing programs in this area. Duke, in my letter of August 1, 1979, had additionally committed to providing partial responses for Units 1 and 2 (accessible areas) by November 1, 1979. The schedule for completion has slipped a couple of weeks. As already discussed with Mr. Heardt of your staff, the response will be provided by November 5, 1979.

Very truly yours,

William O. Parker, Jr.
William O. Parker, Jr. *By [Signature]*

KRW:scs
Attachment

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Oconee Nuclear Station
Unit 3
USNRC IE Bulletin 79-14, Revision 1, Supplement 1, Supplement 2
Partial Item 2 and 3 Response
October 23, 1979

ITEM 2:

For portions of systems which are normally accessible*, inspect one system in each set of redundant systems and all nonredundant systems for conformance to the seismic analysis input information set forth in design documents. Include in the inspection: pipe run geometry; support and restraint design, locations, function and clearance (including floor and wall penetration); embedments (excluding those covered in IE Bulletin 79-02); pipe attachments; and valve and valve operator locations and weights (excluding covered in IE Bulletin 79-04). Within 60 days of the date of this bulletin, submit a description of the results of this inspection. Where nonconformances are found which affect operability of any system, the licensee will expedite completion of the inspection described in Item 3.

ITEM 3:

In accordance with Item 2, inspect all other normally accessible safety-related systems and all normally inaccessible safety-related systems. Within 120 days of the date of this Bulletin, submit a description of the results of this inspection.

COMBINED
RESPONSE TO
ITEMS 2 AND 3:

In accordance with the schedule set forth in Duke Power Company's August 1, 1979 response¹ to Item 1 of the subject Bulletin, this response is applicable to inspections conducted on all safety related/seismic systems of Unit 3.

Currently all physical inspection walkdowns have been completed for the Unit 3 Reactor, Auxiliary and Turbine Building piping systems and supports/restraints. All Unit 3 surveillance data packages have been transmitted from the Oconee Site Surveillance Organization to Duke's Design Engineering Department. Each package is currently undergoing final review by Engineering. These data packages should contain only the "minor discrepancies" which remain after resolution, as noted below, of all "significant discrepancies".

* Normally accessible refers to those areas of the plant which can be entered during reactor operations.

1. Letter dated August 1, 1979 from Mr. W. O. Parker, Jr. (Duke Power Company) to Mr. J. P. O'Reilly, USNRC, Region II.

Any "significant discrepancies" (see Section 6.0¹) identified by the Field Surveillance Teams were immediately forwarded to Duke Design Engineering for review. Since physical inspection walkdowns are complete for Unit 3, all site identified "significant discrepancies" have been reported to Duke Design Engineering for evaluation. Resolution of each of these discrepancies is documented by issuing a standard MDR (Major Discrepancy Resolution) form for signoff by Design Engineering and Oconee Nuclear Station. Signoff will be completed for each MDR form generated during walkdown surveillance, prior to unit startup.

Table 1 presents a complete summary of the results of the inspection of Unit 3 safety related/seismic systems, as of 5:00 P.M., October 22, 1979. The table also lists the status of each surveillance package and identified seismic input nonconformance. The seismic input nonconformances listed in Table 1 are defined as "as-built" discrepancies identified by on-site inspection which have been confirmed to have invalidated the physical piping configuration, boundary conditions or mass distribution assumed in the mathematical model used to simulate seismic response of the piping segment. "As-built" discrepancies which are not sufficient to invalidate the seismic mathematical model and do not, in themselves, warrant reanalysis are not considered to be seismic input nonconformances. The effect of a given seismic input nonconformance on the seismic analysis output can range from an increase to a decrease in the level of seismic structural integrity calculated for the piping. Each seismic input nonconformance is expeditiously evaluated as required by USNRC IE Bulletin 79-14 to determine whether system operability could be impaired during the Design Basis Earthquake. Table 1 summarizes the results of this evaluation for Unit 3 which was in an extended refueling outage during and for this inspection.

Where "evaluation discontinued" has been noted in Table 1, the ongoing operability evaluation was terminated when the seismic input nonconformance was restored to conformance with the "as designed" configuration, by a site repair crew. This was the case when restoration was accomplished in less time than system operability could be evaluated by Design Engineering. Where operability evaluations could not be completed in 48 hours and field work to eliminate the discrepancy could not be accomplished in a similar timeframe, the discrepancy was conservatively assumed to impair system operability and reported to Oconee Nuclear Station for implementation of technical specification action statements and reporting to USNRC. This was the assumption with each seismic input nonconformance listed in Table 1, where "Yes" is entered in the operability impaired column. The affected piping segment was then assumed to be inoperable until the seismic input nonconformance was restored to its "as designed" configuration. Resolution of all seismic input nonconformances listed in Table 1 will be complete prior to Unit 3 startup.

Minor discrepancies between "as-built" and "as-designed" configuration such as weld detail, support detail dimensions, etc., are not considered seismic input nonconformances as listed in Table 1 unless they could potentially invalidate an assumption (e.g. boundary condition) utilized in the seismic model. Duke Design Engineering conducts a thorough evaluation of all discrepancies, major and minor, identified in the surveillance program and specifies resolutions and revises design documents, as required.

Oconee Nuclear Station
USNRC IE Bulletin 79-14
Seismic Input Nonconformance Summary

Unit 3 Unit Access Region Auxiliary, Turbine Buildings

Summary As Of 10/22/79

Summary Issue Date 10/22/79

System	Building	Support/Restraint				Valve/Operator			Piping Physical Configuration	Nonconformance Identified By Site as Significant Discrepancy	Nonconformance Identified By Design Engineering	Criteria (C) or Rigorously (R) Analyzed	COMMENTS	Operability Yes - Y No - N Impaired? - ED	Surveillance Data Package Status				
		Location	Type	Direction	Missing S/R	Additional S/R	Location	Orientation	Type	Missing Valve	Additional Valve				Surveillance Complete Final Site Review	Project Manager Review	Stress Analysis Review	Support/Restraint Review	Station Support Review
01A	A,T	1										X	R,C	Attached to main run in lieu of branch line	ED	X	X	X	
					2							X			ED	/	/	/	/
03	A,T			1								X	R,C	Missing structural member	Y	X	X	X	
03A	A,T				1							X	R,C	Vertical hanger required because of reroute	Y	X	X		
						1						X		Not required	N	/	/	/	/
									1			X		Two adjacent elbows shifted in location	N	/	/	/	/
04A	A,T												R,C			X	X	X	
07A	T												R,C			X	X	X	
08	T												C			X	X	X	X
11	A												C			X	X	X	X
13	T												R			X	X	X	
14B	A,T			1								X	R,C	Not properly shimmed	Y	X	X		
				1						X				Apparent additional lateral restraint	N	/	/	/	/
					1					X				Rod hanger missing	Y	/	/	/	/
									1	X				Piping layout modification	ED	/	/	/	/
20B	A	4										X	R,C	Mislocated by 1'-0", 1'-10", 2'-4" & 3'-7"	N	X	X	X	
						2						X		Additional lateral restraints	N	/	/	/	/
							2					X		Misoriented approximately 90°	N	/	/	/	/

Oconee Nuclear Station
USNRC IE Bulletin 79-14
Seismic Input Nonconformance Summary

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		Location	Type	Direction	Missing S/R	Additional S/R	Location	Orientation	Type	Missing Valve	Additional Valve							Surveillance Complete Final Site Review	Project Manager Review	Stress Analysis Review	Support/Restraint Review	Station Support Review
31	A,T							2					C		Operator type		N	/	/	/	/	/
48	A			1									C		U bolt missing		Y	X	X	X	X	
51A	A				2								R,C		Criteria designed pipe		N	X	X			
51B	A			1									R,C		Missing pin in rod hanger		ED	X	X			
53A	A												R,C				X	X				
53B	A												R,C				X	X				
54A	A												R,C				X	X	X			
54B	A												R,C				X	X	X			
55	A												R,C				X	X	X			
56	A												R,C				X	X	X			
61	A												C				X	X	X	X		
69A													C				X	X	X			

