



# Duquesne Light

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October 19, 1984

United States Nuclear Regulatory Commission  
Washington, DC 20555

ATTENTION: Mr. George W. Knighton, Chief  
Licensing Branch 3  
Office of Nuclear Reactor Regulation

SUBJECT: Beaver Valley Power Station - Unit No. 2  
Docket No. 50-412  
Preservice Inspection Program - Use of Portions of Later  
Addenda of ASME Section XI Examination of Class 2 Systems

Gentlemen:

The Duquesne Light Company (DLC) Preservice Inspection Program Submittal, letter 2NRC-4-096, dated June 29, 1984, was based upon the ASME Boiler and Pressure Vessel Code, 1980 Edition through Winter 1980 Addenda and an applicable portion of 1974 Edition, Summer 1975 Addenda for Class 2 piping weld examination (per 10CFR50.55a[b][2][iv]).

DLC now requests Nuclear Regulatory Commission's approval to use paragraphs IWC-1221 and IWC-1222 of SubSubArticle IWC-1220 and Table IWC-2500-1, Examination Categories C-F-1 and C-F-2 from the 1983 Edition, Winter 1983 Addenda (W83) of the ASME Boiler and Pressure Vessel Code, Section XI. The requirements will be used for selection and examination of Class 2 piping welds for the Beaver Valley Power Station - Unit No. 2 Preservice Inspection Program and for compatibility with expected Inservice Inspection Program requirements.

As the W83 Addenda has not yet been referenced in 10CFR50.55a(b) as an approved Code, specific NRC approval is required to allow use of the W83 Addenda in accordance with 10CFR50.55a(g).

Although the above SubSubArticle Paragraphs and Tables of the ASME Section XI (W83) have been incorporated into a Code Case (N-408), this Code Case has not been included in NRC Regulatory Guide 1.147. DLC prefers direct invocation of the W83 Addenda, in lieu of the Code Case, to provide better compatibility with expected ISI program requirements.

The W83 Addendum differs from the W80 Addendum in the following significant aspects:

1. The volumetric examination population of all > 4" size piping non-exempt welds increases for piping with wall thickness 3/8" through 1/2", where previously only surface examination was required.

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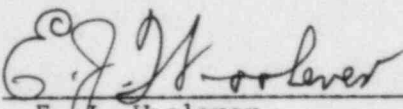
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*1/1*

2. Volumetric and surface examination of 2" through 4" size piping welds is added for high pressure safety injection piping, thus increasing the population of non-exempt welds.
3. The W83 Addenda essentially supersedes 10CFR50.55a(b)(2)(iv), for Class 2 pipe welds in Residual Heat Removal Systems, Emergency Core Cooling Systems, and Containment Heat Removal Systems, such that W83 is utilized in lieu of 74S75 and results in a reduction of surface examination requirements for piping welds > 4" with wall thickness less than 3/8".
4. The Selection Criteria is based on a larger population of welds requiring volumetric examination, in which a smaller percentage has been applied (W83), resulting in an anticipated larger total number of welds requiring volumetric examination than would be required by 80W80.
5. Compatibility between PSI baseline and expected ISI requirements will be better established.

Tables I and II attached are provided as "Information Only" and have been developed from a detailed estimate of the Class 2 piping weld population utilizing piping weld lists, isometrics, and flow diagrams applicable to these systems.

Your prompt approval is requested to allow timely implementation of this aspect (Class 2 Piping Welds) of the BVPS-2 PSI Program, as well as provide compatibility with the ISI Program preparation (scheduled for June, 1985, submittal).

DUQUESNE LIGHT COMPANY

By   
E. J. Woolever  
Vice President

JJS/wjs  
Attachments

cc: Ms. M. Ley, NRC (w/a)  
Mr. E. A. Licitra, NRC (w/a)  
Mr. M. Hum, NRC (w/a)  
Mr. B. Brown, EG&G (w/a)

TABLE I

CARBON STEEL (TABLE IWC-2500-1, CAT C-F-2)  
 ESTIMATE OF CLASS 2 PIPING WELD POPULATION

<u>System</u>	<u>80W80</u>		<u>83W83</u>		<u>83W83 vs. 80W80 (change)</u>	
	<u>Vol.</u>	<u>Surf</u>	<u>Vol.</u>	<u>Surf</u>	<u>Vol.</u>	<u>Surf</u>
<u>RHR</u>	4	310*	69	69	+ 65	-241**
<u>CHR:</u>						
RSS	0	413*	132	132	+132	-281***
QSS	0	15*	3	3	+ 3	- 12**
<u>ECC:</u>						
SIS	172	610*	278	278	+106	-332**
CHS	0	118*	43	43	+ 43	- 75**
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TOTAL	176	1466*	525	525	+349	-941***

\* Surface Examination for > 4" size piping with wall thickness 1/2" or less

\*\* Decrease in Surface Examination is for > 4" size piping with wall thickness < 3/8" per W83

\*\*\* Decrease in Surface Examination is for > 4" size piping with wall thickness < 3/8" or for piping beyond the containment isolation valve in open ended systems which do not contain water during normal plant operations per W83

TABLE II

CARBON STEEL (TABLE IWC-2500-1, CAT C-F-2)  
 ESTIMATE OF CLASS 2 PIPING WELD POPULATION

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<u>System</u>	<u>80W80</u>		<u>83W83</u>		<u>83W83 vs. 80W80 (change)</u>	
	<u>Vol.</u>	<u>Surf</u>	<u>Vol.</u>	<u>Surf</u>	<u>Vol.</u>	<u>Surf</u>
<u>SVS(MSS)</u>	0	55	55	55	+ 55	0
<u>MSS</u>	91	96	96	96	+ 5	0
<u>FWS</u>	49	49	49	49	0	0
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TOTALS	140	200*	200	200	+ 60	0

\* Surface examination for > 4" size piping with wall thickness 1/2" or less