



# Duquesne Light

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2NRC-4-125

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August 17, 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  
S.E.R. Outstanding Issues Status

Gentlemen:

Attachment 1 is a current list, as of August 15, 1984, which provides our understanding of outstanding issues identified in Table 1.2 of the draft SER. Attachment 2 is a current list, as of August 15, 1984, which provides our understanding of confirmatory issues identified in Table 1.3 of the draft SER. Items identified as "complete" are those for which responses have been provided and no confirmation of status has yet been received from the staff. We consider these items satisfactorily closed unless notified otherwise. In order to permit timely resolution of items identified as "complete" which may not be resolved to the staff's satisfaction, please provide a specific description of the issue which remains to be resolved.

Items identified as "closed" or "confirmatory" are based upon formal or informal communications or agreements with the staff. Please inform us of any differing opinion of status described on the attached list.

DUQUESNE LIGHT COMPANY

By

E.J. Woolever  
Vice President

GLB/wjs  
Attachments

cc: Mr. H. R. Denton, Director NRR (w/attachments)  
Mr. D. Eisenhut, Director Division of Licensing (w/attachments)  
Ms. M. Ley, Project Manager (w/attachments)  
Mr. E. A. Licitra, Project Manager (w/attachments)  
Mr. T. Novak, Assistant Director Division of Licensing (w/attachments)  
Mr. G. Walton, NRC Resident Inspector (w/attachments)

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## ATTACHMENT 1

## OUTSTANDING ISSUES

OUTSTANDING ISSUE	SUBJECT	PROPOSED RESPONSE DATE	STATUS	LETTER NO. AND DATE
1	Potential for flooding from local intense precipitation		1	2NRC-4-069, 5/30/84
2	Flooding from Peggs Run		1	2NRC-4-069, 5/30/84
3	Adequacy of the proposed tech spec for drought conditions	4/30/84	Complete	2NRC-4-048, 4/30/84
4	Adequacy of intake structure silt monitoring program	4/30/84	Complete	2NRC-4-049, 4/30/84
5	Boundaries of the Appalachian Plateau Tectonic Province	4/30/84	Complete	2NRC-4-048, 4/27/84
6	Maximum earthquake	4/30/84	Complete	2NRC-4-048, 4/27/84 2NRC-4-072, 6/1/84
7	Ground motion taking soil properties into consideration	4/30/84	Complete	2NRC-4-048, 4/27/84 2NRC-4-072, 6/1/84
8	Actual earthquake time histories	4/30/84	Complete	2NRC-4-048, 4/27/84 2NRC-4-072, 6/1/84
9	Shallow earthquakes	4/30/84	Complete	2NRC-4-048, 4/27/84
10	Vertical seismic design accelerations	4/30/84	Complete	2NRC-4-048, 4/27/84 2NRC-4-072, 6/1/84
11	Tornado pressure drop rate calculations	4/30/84	Complete	2NRC-4-047, 4/27/84
12	Concrete missile barrier design		Complete	2NRC-4-018, 2/27/84 2NRC-4-024, 3/9/84
13	Site-specific response spectra	4/30/84	Complete	2NRC-4-047, 4/27/84 2NRC-4-072, 6/1/84
14	Justification of peak spreading of floor response spectra		Complete	2NRC-4-018, 2/27/84
15	3-component seismic input vs. 2-component input	6/15/84	Complete	2NRC-4-080, 6/15/84
16	Soil-structure interaction analysis of containment and intake structure	6/15/84	Complete	2NRC-4-080, 6/15/84
17	Significance of the coupling in structural response between mutually orthogonal axes of structures	6/15/84	Complete	2NRC-4-080, 6/15/84
18	Deviations of containment design from ASME Code Section III Division 2	6/15/84	Complete	2NRC-4-080, 6/15/84
19	Ultimate capacity analysis of containment	6/15/84	Complete	2NRC-4-080, 6/15/84
20	Deviations from requirements of ACI 349 code as augmented by Reg. Guide 1.142	4/27/84	Complete	2NRC-4-047, 4/27/84
21	Structural audit action items	4/27/84	Complete	2NRC-4-047, 4/27/84
22	Effects of cracked panel on dynamic modeling and design		Complete	2NRC-4-018, 2/27/84
23	Adequacy of re-assessed safety factors against sliding and overturning of containment, aux. building, and intake structure	4/30/84	Complete	2NRC-4-047, 4/27/84

<u>OUTSTANDING ISSUE</u>	<u>SUBJECT</u>	<u>PROPOSED RESPONSE DATE</u>	<u>STATUS</u>	<u>LETTER NO. AND DATE</u>
24	Through-wall leakage cracks in moderate energy lines in containment	5/15/84	Closed	2NRC-4-052, 5/8/84
25	Selection of postulated break locations	5/15/84	Closed	2NRC-4-052, 5/8/84
26	Jet impingement effects	6/29/84	Confirmatory	2NRC-4-052, 5/8/84 2NRC-4-097, 7/2/84
27	Break exclusion zones	5/15/84	Confirmatory	2NRC-4-052, 5/8/84
28	Pipe-to-pipe impact	5/15/84	Complete	2NRC-4-052, 5/8/84
29	Limited break areas	5/15/84	Closed	2NRC-4-052, 5/8/84
30	Saturated or subcooled water blowdown	5/15/84	Closed	2NRC-4-052, 5/8/84
31	Design of pipe rupture restraints	5/15/84	Closed	2NRC-4-052, 5/8/84
32	List of transients	5/15/84	Closed	2NRC-4-052, 5/8/84
33	Location of systems to be monitored during pre-op testing	6/01/84	Closed	2NRC-4-052, 5/8/84
34	Criteria used for determining acceptability of vibration levels	5/04/84	Closed	2NRC-4-052, 5/8/84
35	Vibration monitoring program	5/04/84	Closed	2NRC-4-052, 5/8/84
36	Combining 3 components of earthquake motion	5/04/84	Closed	2NRC-4-052, 5/8/84
37	Modes included in seismic analyses	5/15/84	Closed	2NRC-4-052, 5/8/84
38	Demonstrating seismic qualification	5/15/84	Closed	2NRC-4-052, 5/8/84
39	Loading combinations, system operating transients, and stress limits	5/15/84	Complete	2NRC-4-052, 5/8/84 2NRC-4-097, 7/2/84
40	HVAC system design	5/15/84	Confirmatory	2NRC-4-052, 5/8/84 2NRC-4-097, 7/2/84
41	Design of safety and relief valves	5/15/84	Closed	2NRC-4-052, 5/8/84
42	Design and construction of ASME Class 1, 2, and 3 component support	5/15/84	Complete	2NRC-4-052, 5/8/84 2NRC-4-097, 7/2/84
43	Preservice and inservice testing of pumps and valves	a-6/84 b-12/84 c-6/85	Complete	2NRC-4-096, 6/29/84 2NRC-4-097, 7/2/84
44	Effects of rod bow on DNB	6/29/84	Complete	2NRC-4-102, 7/12/84
45	Flow measurement capability and procedure	6/29/84	Complete	2NRC-4-102, 7/12/84
46	Loose parts detection program report	6/29/84		
47	Documentation of complete ICC system	6/29/84	Complete	2NRC-4-102, 7/12/84
48	Preservice inspections program	6/84	Complete	2NRC-4-096, 6/29/84
49	Compliance with Appendix G 10CFR Part 50	6/29/84	Complete	2NRC-4-049, 4/30/84
50	Compliance with Appendix H 10CFR Part 50	4/30/84	Complete	2NRC-4-049, 4/30/84
51	Pressure temperature limits	4/30/84	Complete	2NRC-4-049, 4/30/84
52				

<u>OUTSTANDING ISSUE</u>	<u>SUBJECT</u>	<u>PROPOSED RESPONSE DATE</u>	<u>STATUS</u>	<u>LETTER NO. AND DATE</u>
53	Control room habitability	6/01/84		
54	Inservice inspection of Class 2 and 3 components	a-6/84 c-6/85		
55	Design modification for automatic reactor trip			
56	Anticipatory reactor trip on turbine trip	5/25/84	Complete	2NRC-4-086, 6/20/84 2NRC-4-119, 8/9/84
57	P-4 interlock		Closed	2NRC-4-038, 4/10/84
58	Undetectable failure in online testing circuitry for engineered safeguards relays	7/16/84	Closed	2NRC-4-119, 8/9/84
59	Service water system isolation on low header pressure	5/31/84	2	2NRC-4-086, 6/20/84
60	Normal letdown line relief valve	5/25/84	Closed	2NRC-4-086, 6/20/84
61	Switchover from injection to recirculation	5/11/84	Closed	2NRC-4-056, 5/14/84
62	Main feedwater isolation	5/25/84	Closed	2NRC-4-086, 6/20/84
63	Control room isolation	6/29/84		
64	Steam generator level control and protection		1	2NRC-4-068, 5/30/84
65	IE Bulletin 80-06 concerns	6/29/84	Closed	2NRC-4-112, 7/30/84
66	Independence between manual and automatic action	6/29/84	Closed	2ASR-01227, 7/10/84
67	Power lockout for motor-operated valves		1	2NRC-4-082, 6/15/84
68	Remote shutdown capability	5/25/84	2	2NRC-4-079, 6/13/84
69	Emergency response capability		Lic. Condit.	
70	Direct indication of relief and safety valve positions	5/18/84	Closed	2NRC-4-064, 5/29/84
71	Bypass and inoperable status panel	5/25/84	2	2NRC-4-079, 6/13/84
72	IE Bulletin 79-27	7/02/84	Confirmatory	2NRC-4-112, 7/30/84
73	Reactor coolant system loop isolation interlocks	6/29/84	Complete	2NRC-4-102, 7/12/84
74	Primary component cooling water isolation from RCP thermal barriers	6/29/84		
75	PID controller modification	6/29/84	Confirmatory	2NRC-4-086, 6/20/84
76	High energy line breaks and consequential control system failures	4/27/84	Closed	2NRC-4-049, 4/30/84
77	Control system failure caused by malfunctions of common power source or instrument line	7/06/84	Complete	2NRC-4-119, 8/9/84
78	Procedure to estimate extent of core damage		Complete	2NRC-4-042, 4/18/84
79	Backup post accident sampling through grab samples for inline analyses		Complete	2NRC-4-042, 4/18/84
80	Measuring radionuclide concentrations		Complete	2NRC-4-042, 4/18/84

OUTSTANDING ISSUE	SUBJECT	PROPOSED RESPONSE DATE	STATUS	LETTER NO. AND DATE
81	Performance of PASS instrumentation and analytical procedures		Complete	2NRC-4-042, 4/18/84
82	Fire hazards analysis	5/15/84	Confirmatory	2NRC-4-063, 5/23/84
83	Fire brigade	5/15/84	Confirmatory	2NRC-4-063, 5/23/84
84	Penetration seals	5/15/84	Closed	2NRC-4-063, 5/23/84
85	Safe shutdown		5	
86	Alternate shutdown		5	
87	Hydrogen piping	5/15/84	Closed	2NRC-4-063, 5/23/84
88	Cable tray suppression	5/15/84	Closed	2NRC-4-063, 5/23/84
89	Power supplies for control room ventilation	5/15/84	5	2NRC-4-063, 5/23/84
90	Fire detection	5/15/84	Confirmatory	2NRC-4-063, 5/23/84
91	Valve supervision	5/15/84	Closed	2NRC-4-063, 5/23/84
92	Reactor coolant pumps and separation of safety-related components in containment	5/15/84	Confirmatory	2NRC-4-063, 5/23/84
93	Control room complex	5/15/84	Confirmatory	2NRC-4-063, 5/23/84
94	Cable spreading room	5/15/84	1	2NRC-4-063, 5/23/84 2NRC-4-067, 5/30/84
95	Exemption to 10CFR 70.24(a) and description of alternative to required criticality monitors	6/01/84	Closed	2NRC-4-078, 6/13/84
96	Types, numbers, specifications for portable and laboratory HP instruments	5/15/84	Closed	2NRC-4-078, 6/13/84
97	Training/retraining for health physics professionals and verification that contractor training meets 10CFR 19.12 requirements		Closed	2NRC-4-078, 6/13/84
98	Procedures generation package/TMI I.C.1, short-term accident analysis and procedures revision		7	
99	Physical security	5/16/84	Complete	2NRC-4-051, 5/04/84
100	Initial test program	7/03/84	Complete	2NRC-4-048, 4/27/84
101	Radiological consequences of control rod ejection DBA		5	
102	Radiological consequences of a small line break DBA	5/15/84	Complete	2NRC-4-109, 7/23/84
103	Radiological consequences of a steam generator tube rupture DBA and review of operator actions and system performance	6/29/84	Complete	2NRC-4-086, 6/20/84
104	Radiological consequences of a steamline break outside secondary containment		5	
105	Radiological consequences of a loss of coolant DBA		5	
106	Radiological consequences of a fuel handling DBA		5	

OUTSTANDING ISSUE	SUBJECT	PROPOSED RESPONSE DATE	STATUS	LETTER NO. AND DATE
107			3	
108	TMI Items II.K.1.5, II.K.1.10, and II.K.3.17	6/85		
109	TMI Item II.K.2.13		5	
110	TMI Item II.K.3.2		5	
111	TMI Items II.K.3.5, II.K.3.30, and II.K.3.31		5	
112	Technical specifications	9/30/84		
113	Detailed control room design review	6/01/85		
114	Safety parameter display system	8/01/84	Complete	2NRC-4-115, 8/1/84
115	Snowpack load on roofs	6/29/84	Complete	2NRC-4-112, 7/30/84
116	Extreme temperatures for site area	6/29/84		
117	Affects of relocation of met. tower	6/29/84	Complete	2NRC-4-079, 6/13/84
118	Long term diffusion estimates	6/29/84	Complete	2NRC-4-079, 6/13/84
119	Deviations to R.G. 1.52	6/29/84		
120	Containment vacuum system exhaust iodine removal capability	6/29/84	Complete	2NRC-4-112, 7/30/84
121	Evaluation of RWST failure		5	
122	Water leakage into safety-related equipment cubicles	7/02/84	Complete	2NRC-4-099, 7/2/84
123	Testing of functional capability for water-tight seals	7/02/84	Complete	2NRC-4-099, 7/2/84
124	Accessibility of intake structure for safe shutdown	7/02/84	Complete	2NRC-4-099, 7/2/84
125	Adequacy of water stops for construction joints	7/02/84	Complete	2NRC-4-121, 8/10/84
126	Flooding due to failure of non-seismic Category 1 equipment	7/02/84	Complete	2NRC-4-099, 7/2/84
127	Fan blade missile	7/02/84	Complete	2NRC-4-099, 7/2/84
128	Missile barrier for turbine driven auxiliary feedwater pump missiles	7/02/84	Complete	2NRC-4-099, 7/2/84
129	Pressurized container missiles	7/02/84	Complete	2NRC-4-099, 7/2/84
130	Temperature and pressure sensor missiles	7/02/84	Complete	2NRC-4-099, 7/2/84
131	Tornado missile protection for auxiliary building	7/02/84	Complete	2NRC-4-099, 7/2/84
132	Tornado missile protection of main steam vent panels	7/02/84	Complete	2NRC-4-099, 7/2/84
133	Postulated pipe breaks outside containment	7/02/84	Complete	2NRC-4-099, 7/2/84
134	Fuel pool maximum heat loads	7/02/84	1	2NRC-4-085, 6/15/84
135	Light load handling system	7/02/84	Complete	2NRC-4-121, 8/10/84
136	Handling of heavy loads	7/02/84	Complete	2NRC-4-099, 7/2/84
137	Marine growth in standby service water system	7/02/84	Complete	2NRC-4-099, 7/2/84

<u>OUTSTANDING ISSUE</u>	<u>SUBJECT</u>	<u>PROPOSED RESPONSE DATE</u>	<u>STATUS</u>	<u>LETTER NO. AND DATE</u>
138	Verification of instrument air quality in compressed air systems	7/02/84	Complete	2NRC-4-099, 7/2/84
139	Equipment and floor drainage system	7/02/84	Complete	2NRC-4-121, 8/10/84
140	Conformance with Regulatory Guide 1.95	7/02/84	Complete	2NRC-4-099, 7/2/84
141	Conformance with Regulatory Guide 1.78	7/02/84	Complete	2NRC-4-099, 7/2/84
142	Seismic Category 1 requirements for compressed air system	7/02/84	Complete	2NRC-4-099, 7/2/84
143	Environmental qualification and accessibility of essential equipment housed in fuel building	7/02/84	Complete	2NRC-4-099, 7/2/84
144	Safety classification of motor control centers	7/02/84	Complete	2NRC-4-099, 7/2/84
145	Air exhaust radiological monitoring system	7/02/84	Complete	2NRC-4-121, 8/10/84
146	Protection of emergency switchgear room ventilation system	7/02/84	Complete	2NRC-4-099, 7/2/84
147	Supplementary leak collection and release system requirements for safe shutdown	7/02/84	Complete	2NRC-4-099, 7/2/84
148	Water hammer test of condensate and feedwater system	7/02/84	Complete	2NRC-4-121, 8/10/84
149	Auxiliary feedwater system, TMI Item II.E.1.1	7/02/84	Complete	2NRC-4-099, 7/2/84
150	Seismic qualification of equipment	7/16/84	Complete	2NRC-4-118, 8/5/84
151	Pump and valve operability assurance program	7/16/84	Complete	2NRC-4-118, 8/5/84
152	Environmental qualification of equipment		Confirmatory	2NRC-3-096, 12/5/83
153	Analysis of combined LOCA and seismic loads	7/16/84		
154	Testing and inspection of new fuel	7/16/84	Closed	2ASR-01280, 8/8/84
155	On-line detection method to monitor fuel rod failures	7/16/84		
156	Underclad cracking of forgings in reactor vessel	7/16/84	Complete	2NRC-4-120, 8/10/84
157	Review of structures, systems, and components under Quality Assurance Program		5	
158	PORV setpoint values	7/16/84	Complete	2NRC-4-122, 8/10/84
159	RHR operation requirements outside control room	7/16/84	Complete	2NRC-4-122, 8/10/84
160	RHR overpressure protection system	7/16/84	Complete	2NRC-4-122, 8/10/84
161	Qualification of RHR pumps inside containment	7/16/84	Complete	2NRC-4-122, 8/10/84
162	Natural circulation test	7/16/84	Complete	2NRC-4-122, 8/10/84
163	Programs and procedures for containment sump operation	7/16/84	Complete	2NRC-4-122, 8/10/84
164	Review of off-site emergency plans (FEMA)		5	
165	On-site emergency planning	7/23/84		

<u>OUTSTANDING ISSUE</u>	<u>SUBJECT</u>	<u>PROPOSED RESPONSE DATE</u>	<u>STATUS</u>	<u>LETTER NO. AND DATE</u>
166	Barometric pressure for containment depressurization analysis	7/16/84		
167	Mass and energy release analysis	7/16/84		
168	Subcompartment analysis (reactor cavity, steam generator and pressurizer)	7/16/84		
169	Containment sump design	7/16/84		
170	Post-accident hydrogen monitoring system	7/16/84		
171	Type C testing exclusion of valves	7/16/84		
172	Longitudinal sections and parameters of Category I buried pipelines	7/16/84		
173	Stability analysis	8/31/84		
174	Foundation data for main intake structure	7/16/84		
175	Measured, estimated and allowable settlement data	12/85	9	
176	Differential settlements	12/85	9	
177	Settlement monitoring program	7/09/84	Complete	2NRC-4-117, 8/8/84
178	Densification of soils	8/31/84		
179	Soil damping valves	8/31/84		
180	Soils effective strength parameters	7/25/84	Complete	2NRC-4-114, 8/1/84
181	Accuracy of SIDES program	7/25/84	Complete	2NRC-4-114, 8/1/84
182	Offsite power systems		8	
183	Independence between offsite and onsite power sources		8	
184	Automatic load tap changer		8	
185	Testing of offsite power transfer		8	
186	Voltage analysis for safety-related loads		8	
187	Diesel generator testing		8	
188	Compliance with BTP-PSB-2		8	
189	Diesel generator loading		8	
190	Compliance with IEEE Standard 387-1977		8	
191	Power removal for selected safety valves		8	
192	Automatic reclosure of breakers after manual trip		8	
193	Replacements for Class 1E loads		8	
194	Accident loading capacity of the diesel generator		8	
195	Connecting non-Class 1E loads with Class 1E loads		8	
196	Compliance with GDC 2 and 4		8	



<u>OUTSTANDING ISSUE</u>	<u>SUBJECT</u>	<u>PROPOSED RESPONSE DATE</u>	<u>STATUS</u>	<u>LETTER NO. AND DATE</u>
197	Compliance with GDC 17		6	
198	Electrical independence between power supplies		8	
199	Compliance with GDC 50		8	
200	Information on evaluations of individual events	7/16/84	Complete	2NRC-4-122, 8/10/84
201	Turbine trip event	7/16/84	Complete	2NRC-4-122, 8/10/84
202	Reactor coolant pump rotor seizure	7/16/84	Complete	2NRC-4-122, 8/10/84
203	Inadvertant boron dilution during refueling	7/16/84	Complete	2NRC-4-122, 8/10/84

NOTES:

- <sup>1</sup>Filed as a backfit under Generic Letter 84-08
- <sup>2</sup>Supplemental submittal to be provided
- <sup>3</sup>Not provided in draft SER
- <sup>4</sup>Responses have been informally transmitted to the reviewer
- <sup>5</sup>Staff action only
- <sup>6</sup>A meeting with the NRC Reviewing Branch is required before response can be finalized
- <sup>7</sup>No response required
- <sup>8</sup>Reviewer unavailable until September; responses provided informally in a meeting on 7/19/84 will be revised and submitted in August 1984
- <sup>9</sup>Information will be available on the required figure and procedures by 8/31/84
- <sup>a</sup>PSI PROGRAM
- <sup>b</sup>PSI PROCEDURES FOR VALVES & PUMPS
- <sup>c</sup>ISI PROGRAM

ATTACHMENT 2  
CONFIRMATORY ISSUES

OUTSTANDING ISSUE	SUBJECT	STATUS	LETTER NO. AND DATE
1	Operating basis earthquake	Complete	2NRC-4-047, 4/27/84 2NRC-4-072, 6/1/84 2NRC-4-048, 4/27/84
2	Stress and strain levels of key structural elements	Complete	2NRC-4-047, 4/27/84
3	Floor response spectra accounting for 3-component earthquake input	Complete	2NRC-4-080, 6/15/84
4		*	
5	Examination of steam generators		
6		*	
7	Main FW isolation		
8	CR isolation on high radiation signal		
9	Automatic opening of service water system valves		
10	Accident monitoring instrumentation positions		
11	Cold leg accumulator MOV position indication		
12	Table 1.9-2 by-product, source, and special nuclear material descriptions nine months prior to fuel loading Q471.14B		
13	Verification that cobalt use in primary system has been minimized Q471.10	Closed	2NRC-4-078, 6/13/84
14	Containment high range radiation monitors six months prior to fuel loading Q471.14a	Closed	2NRC-4-078, 6/13/84
15	Verify that RMS airborne radioactivity monitors	Closed	2NRC-4-078, 6/13/84
16	Quality assurance program requirements	Closed	2NRC-4-078, 6/13/84
17	Peak pellet design basis		
18	Specification of fuel parameters		
19	Rod bowing analysis		
20	Fuel rod internal pressure		
21	Cladding collapse time		
22	Use of austenitic stainless steels	Complete	2NRC-4-120, 8/10/84

\*Not provided in Draft SER