



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

October 4, 1991

Dr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3  
Inservice Testing Program for Pumps and Valves  
NRC Docket Nos. 50-237 and 50-249

- References:
- (a) M. Richter (CECo) letter to T.E. Murley (NRC), dated July 17, 1991.
  - (b) Conference call between CECo (M. Richter et al.) and NRR (L. Olshan, et al.) on September 30, 1991.

Dear Dr. Murley:

Reference (a) transmitted Revision 4 of the Dresden Station (Units 2 and 3) IST Program for pumps and valves. Included within Attachment A to Reference (a) was Dresden Pump Relief Request PR-7, "HPCI Pump, Relief from OM-6 Vibration Limits." As documented in the Reference (b) teleconference, Commonwealth Edison Company (CECo) proposes to amend Dresden Pump Relief Request PR-7. The amended relief request is included as an attachment of this letter.

CECo proposes to delete Section 5.3 from PR-7, and replace Tables 5.1 and 5.2 with a single combined Table (New Table 5.1, "HPCI Multipliers"). Newly revised Table 5.1 reflects the revised Alert and Required Action Ranges as discussed during the Reference (b) teleconference.

Please contact this office should further information be required.

Sincerely,

  
for M.H. Richter  
Nuclear Licensing Administrator

Attachment: Dresden Pump Relief Request PR-7

cc: A. Bert Davis, Regional Administrator - Region III  
B.L. Siegel, Project Manager - Dresden  
W.G. Rogers, Senior Resident Inspector - Dresden

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**RELIEF REQUEST NO. PR-7**

**1. Description**

1.1. Relief from ANSI/ASME OM-6 (Draft 11) velocity vibration acceptable ranges.

**2. AFFECTED COMPONENT(S)**

Pump EPN Size	CLS	P&ID/CORD	Function
2-2302 14"	2	51/A5	High Pressure Coolant Injection
3-2302 14"	2	374/A5	High Pressure Coolant Injection

**3. ASME SECTION XI (\$79) TEST REQUIREMENT(S)**

3.1. IWP-4500 Vibration

**4. BASIS FOR RELIEF**

4.1. During both Unit 2 and Unit 3 outages for 1988, the HPCI pump impellers were replaced with a newly designed impeller. This new impeller has cut the vibration levels in half on both the HPCI main and booster pumps.

4.2. Even though the overall vibration levels are much lower, in some cases the readings exceed the acceptable ranges established by Relief Request PR-1 and therefore ANSI/ASME OM-6.

4.3. The actual reference values and limits are documented in DAP 11-21 Form B, Technical Review of Pump Performance Parameters.

**5. ALTERNATIVE TEST**

5.1. In reference to the letter dated September 1, 1988, "Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting IST Program Relief Requests, Commonwealth Edison Company, Dresden Nuclear Power Station, Unit Nos. 2 and 3, Docket Nos. 50-237 and 50-249", Section 1.2., Relief Request PR-1A. Inservice Test Procedure, Temperature Measurement, this relief request is being submitted to establish velocity alert and action limits based on the actual pump vibration readings specific to these pumps.

5.2. The new vibration limits, though higher than those placed on the other pumps in the IST program, are modeled similar to the other limits in the program and are indicative of HPCI pump degradation. On points still showing high vibrations, the required action multiplier limit was calculated so that the required action range would be close to the previous vibration level prior to impeller replacement. This will ensure that the vibrations are not allowed to substantially increase over time. The vibration limits for each HPCI pump are listed below in Table 5.1.

Table 5.1.  
 HPCI Multipliers

<u>Unit 2</u> Point	Alert Range		Required Action	
	Low	High	Range	Not to Exceed: (in/sec)
3H	>1.5Vr	to 6Vr	>6Vr	0.700
3V	>1.5Vr	to 2Vr	>2Vr	0.732
4H	>1.5Vr	to 6Vr	>6Vr	0.700
4V	>2.5Vr	to 6Vr	>6Vr	0.700
4A	>2.5Vr	to 6Vr	>6Vr	0.700
9H	>2.5Vr	to 6Vr	>6Vr	0.700
9V	>2.5Vr	to 6Vr	>6Vr	0.700
10H	>2.5Vr	to 6Vr	>6Vr	0.700
10V	>1.5Vr	to 2Vr	>2Vr	0.832
10A	>2.5Vr	to 6Vr	>6Vr	0.700

<u>Unit 3</u> Point	Alert Range		Required Action	
	Low	High	Range	Not to Exceed: (in/sec)
3H	>1.5Vr	to 2Vr	>2Vr	1.348
3V	>1.5Vr	to 6Vr	>6Vr	0.700
4H	>1.5Vr	to 2Vr	>2Vr	0.892
4V	>2.5Vr	to 6Vr	>6Vr	0.700
4A	>2.5Vr	to 6Vr	>6Vr	0.700
9H	>2.5Vr	to 6Vr	>6Vr	0.700
9A	>2.5Vr	to 6Vr	>6Vr	0.700
10H	>1.5Vr	to 6Vr	>6Vr	0.700
10V	>1.5Vr	to 6Vr	>6Vr	0.700
10A	>1.5Vr	to 6Vr	>6Vr	0.700