



**Consumers
Power**

**POWERING
MICHIGAN'S PROGRESS**

Palisades Nuclear Plant: 27780 Blue Star Memorial Highway, Covert, MI 49043

David W. Rogers
Plant Safety and Licensing Director

September 29, 1994

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT - 10CFR 50.61 - PRESSURIZED
THERMAL SHOCK - STEAM GENERATOR WELD SAMPLING

In the NRC's March 25, 1994 letter "Summary of Meeting Held on March 9, 1994, on Pressurized Thermal Shock Issue", the staff requested that Consumers Power Company (CPC) perform more than three chemical analyses on each weld sample removed from the retired Palisades steam generators. The letter stated that the staff believes that, due to the variability of the copper coating on the weld wire, a best estimate value for the amount of copper in a weld should have more than three data points.

CPC's technical staff agrees that more data improves the accuracy of an estimate and decreases the effect of an anomalous measurement. However, as illustrated in the tables in Attachment 1, copper measurements from welds fabricated from the same weld wire heats as the steam generator welds do not vary substantially within a weld.

Therefore, we plan to perform only three copper measurements per weld as specified in ASTM E185-82. Using those three measurements, the mean value and the standard deviation of the copper measurements for each steam generator weld will be determined and added to those in the tables in Attachment 1. Then:

1. If the standard deviation of the three copper measurements for a steam generator weld is greater than the largest standard deviation for another weld manufactured with weld wire from the same heat (as shown in Attachment 1), an additional three measurements will be included from another location in that weld.

040016
9410040309 940929
PDR ADDCK 05000255
P PDR

A CMS ENERGY COMPANY

AD49

2. If the mean for each group of three copper measurements from a steam generator weld is not within two standard deviations of the mean of all the welds fabricated with weld wire from the same heat (including the measurements in the above tables and the measurements from the Palisades steam generator welds), an additional three measurements will be included from another location in that weld.

In summary, if both of the criteria described above are not met by the initial three copper measurements from a steam generator weld, three additional measurements from another location in that weld will be included.

Summary of Commitments

If both of the criteria described in this submittal are not met by the initial three copper measurements from a steam generator weld, three additional measurements from another location in that weld will be included.



David W. Rogers
Plant Safety and Licensing Director

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

ATTACHMENT 1

Consumers Power Company
Palisades Plant
Docket 50-255

COPPER MEASUREMENTS FOR WELD WIRE
HEAT NOS. W5214 AND 34B009

Date

WELDS FABRICATED WITH WELD WIRE HEAT NUMBER W5214

Weld Identification	Copper		
	Content	Mean	Standard Deviation
Indian Point 2 1-042B	0.20	0.20 (2)	
H B Robinson 2 torus to flange	0.154 0.163 0.152 0.166	0.159 (2)	0.007
Indian Point 2 surveillance	0.23 0.20 0.20 0.19 0.22 0.18 0.20	0.20	0.017
Indian Point 3 surveillance	0.15 0.166	0.16 (2)	0.011
Indian Point 3 nozzle cutout	0.16 0.15 0.15	0.15	0.006
H B Robinson 2 surveillance	0.32 0.34 0.33 0.35	0.34	0.013
Oyster Creek 1 surveillance	0.282 0.290 0.282	0.285	0.005

WELDS FABRICATED WITH WELD WIRE HEAT NUMBER 34B009

Weld Identification	Copper		
	Content	Mean	Standard Deviation
Millstone 1 surveillance	0.19 0.20 0.19 0.20 0.19 0.18 0.14 0.12 0.20 0.21 0.20 0.18 0.19 0.20 0.20 0.16	0.18 (2)	0.024
H B Robinson 2 torus to dome	0.202 0.180 0.182 0.183	0.187	0.010