



**Consumers  
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**POWERING  
MICHIGAN'S PROGRESS**

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**Kenneth W Berry**  
Director  
Nuclear Licensing

May 2, 1988

Director  
Nuclear Reactor Regulation  
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -  
10CFR PART 21 REPORT - BORON STANDARD

This letter provides written follow-up notification of an inaccurate 1000 ppm boron standard used at the Palisades Plant to standardize the titrant used for boron concentration analysis. The boron standard was not used for any Technical Specification boron analysis. Consumers Power Company verbally notified Mr Bruce Burgess of the USNRC, Region III, of this event on April 29, 1988.

The 1000 ppm boron standard, which is used to standardize 0.025N sodium hydroxide solution for boron analysis, was purchased from Mallinckrodt Inc., Paris, Kentucky, Lot Number H507KCCC with an expiration date of February 1990. The 1000 ppm  $\pm 1\%$  boron atomic absorption standard was determined to be 1064 ppm which would lead to nonconservative boron concentration determination. The confirmation of the 1064 ppm standard was done by comparison of two liquid standards from two different lot numbers (one a Fisher and the other a Mallinckrodt standard). Additional confirmation of the 1064 ppm standard was done by preparing a 1000 ppm boron standard from reagent grade dry boric acid ( $H^3BO_3$ ) per ASTM D3082-79.

The determination of deviation was made on April 27, 1988 at 1600 hours. All suspect material located in the Chemistry Laboratory has been removed and labeled not for use. A hold has been placed on the remaining material in the storeroom. None of the suspect material will be used. Samples of the boron in question have been returned to the vendor, at their request, for assistance in determination of the discrepancy. Further corrective action determination has not been made at this time. The occurrence is being documented on Palisades Plant Deviation Report No D-PAL-88-041.

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Boron Standard  
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The Palisades Plant Chemistry Laboratory Supervisor, Mr Thomas Chartrand, is responsible for corrective action follow-up.

No further advise related to the deviation is offered at this time.

*Kenneth W Berry*

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Director, Nuclear Licensing

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