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 identified in NRC ltr dtd 941013.

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Arizona Public Service Company
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JAMES M. LEVINE
VICE PRESIDENT
NUCLEAR PRODUCTION

102-03165-JML/AKK/DRL
October 29, 1994

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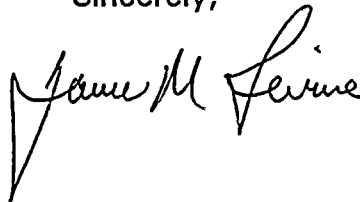
Reference: NRC Letter to W. Stewart, dated October 13, 1994, "Issuance of
Emergency Amendment for the Palo Verde Nuclear Generating Station
Unit No. 2 (TAC No. M90581)"

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 2
Docket No. STN 50-529
Revision of Compensatory Actions for Battery Testing
File: 94-056-026; 94-005-419.05

Based upon a telephone conversation with NRC Staff on October 28, 1994, Arizona
Public Service Company (APS) is providing the enclosed supplemental information in
support of a modification of the Compensatory Actions identified in the referenced
letter.

Should you have any questions, please contact Scott A. Bauer at (602) 393-5978.

Sincerely,



JML/AKK/DRL/rv
Enclosure

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ENCLOSURE

REVISION OF COMPENSATORY ACTIONS FOR BATTERY TESTING

ENCLOSURE

On October 13, 1994, Amendment No. 71 to Facility Operating License No. NPF-51 for the Palo Verde Nuclear Generating Station (PVNGS) was issued. The safety evaluation for the amendment delineated the compensatory actions to be implemented while the amendment is in effect. One of the defined Compensatory Actions was float current of the installed battery trains must be measured on one train each week and the value must be less than or equal to 500 ma or the batteries were to be declared inoperable. Testing conducted during the week of October 24, 1994, has determined that accurate float current readings can not be taken on the installed battery trains in accordance with the identified Compensatory Action.

Due to the configuration of the safety-related 125VDC system at PVNGS, the float current reading taken on the installed batteries contains noise due to the battery chargers also supplying power to plant loads under normal operation. The readings are taken using an existing shunt in the battery circuit and a digital volt meter. The voltage value is then converted to amperage based on the known resistance value of the shunt. The installed shunt is sized to read the much higher currents experienced during battery discharge rather than for taking float current readings. As a result, the float current readings taken at the shunt are masked by noise of a magnitude equal to or greater than the float current such that an accurate reading can not be made. Modifications to the installed instrumentation are not possible without removing the batteries from service. Measurements were taken of float current in Units 1 and 3 and similar results were obtained.

Since the battery banks contain both degraded cells and new cells¹, the individual cell voltages of the new cells would increase if the degraded cells were drawing an increased float current. This effect is experienced because all cells are connected in series and the new cells would experience the same increased float current as the degraded cells, thereby driving up their individual voltage. Therefore, individual cell voltage of the new cells provides a measure of the state of the degraded cells.

¹ "New cells" refer to the twenty three new replacement cells and the combined eight spare cells from Units 1 and 3.

Based upon the above information, APS proposes to modify the identified Compensatory Actions for float voltage and float current as follows:

<u>Parameter</u>	<u>Limits/Allowable</u>	<u>Actions to be Taken if Outside Limits</u>
Float Voltage		
All cells	\geq 2.18 Volts	Battery Inoperable
New cells	\leq 2.35 Volts	Battery Inoperable
Float Current		
Control cells ²	\leq 500 ma	Battery Inoperable
Installed cells	$<$ 2 amps	Battery Inoperable
	averaged value	

In addition, as agreed in a previous telephone conversation of October 26, 1994, the battery service test for the first control group has been rescheduled until the end of the first week of November to accommodate the arrival of additional testing equipment. The second service test will be performed in late November in accordance with the NRC safety evaluation for the license amendment.

² The control cells will consist of cells that have not been subjected to a battery service test.

