

9 Twin Orchard Drive  
Oswego, NY 13126  
June 23, 2006

Mr. John P. Boska  
Project Manager, NRR  
US NRC  
Washington, DC 20555-0001

Dear Mr. John P. Boska:

After reading ML060810234, which is a letter you wrote to Entergy/FitzPatrick requesting additional information, I found the 64 page ML051510286. It is a request to remove some battery surveillances from Entergy/FitzPatrick Technical Specifications.

Two types of service are involved, at two different voltages. Initially I assumed that they were all lead-acid batteries. I still believe this is correct.

The minimum float charging of the LPCI batteries immediately bothered me. You will note that the 125 volt batteries are charged at a higher voltage (130.2 volts). It was hard to miss that the 419 volt batteries were to be charged at a lower voltage (403.6 volts). This didn't make any sense to me. (The reference is on page 8 of 9).

I think I have found out why.

All the batteries have an open circuit voltage of 2.065 volts per cell. (Ref. Page 1 of 7, Inserts for TS Bases Pages Mark-Up)

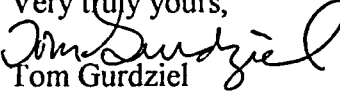
The 60 cell battery then has an open circuit voltage of  $60 \times 2.065 = 123.9$  volts. It is float charged at 2.20 volts per cell. This is  $60 \times 2.20 = 132.0$  volts.

The 186 cell LPCI battery has an open circuit voltage of  $186 \times 2.065 = 384.09$  volts. It is float charged at 2.25 volts per cell. This is  $186 \times 2.25 = 418.5$  volts.

The 60 cell battery is identified by the cumulative cell open circuit voltage (approximately). It is called the 125 volt battery. The 186 cell battery is identified by the cumulative cell float voltage. It is called the 419 volt battery.

Notice the inconsistency: the batteries in each service are identified (relative to voltage) differently. I believe that the 60 cell battery is correctly identified as a 124 volt battery. I believe that the 186 cell battery would be correctly identified as a 384 volt battery.

Wouldn't it reduce confusion if all batteries in service at the FitzPatrick plant were identified consistently with respect to voltage?

Very truly yours,  
  
Tom Gurdziel

Copy:

M.J. Colomb, Entergy Nuclear Operations, Inc.