

**From:** "Tom Gurdziel" <tgurdziel@twcny.rr.com>  
**To:** <opa@nrc.gov>  
**Date:** 6/27/2006 11:12:44 PM  
**Subject:** FitzPatrick Batteries

Good morning,

Please send this to Mr. John P. Boska.

Thank you,

Tom Gurdziel

**CC:** "Ed Stronski" <ESTRONSKI@aol.com>, "David Lochbaum" <dlochbaum@ucsusa.org>

**Mail Envelope Properties** (44A1F3A8.9DF : 11 : 63967)

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**Creation Date** 6/27/2006 11:11:57 PM  
**From:** "Tom Gurdziel" <tgurdziel@twcnny.rr.com>

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None

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No

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9 Twin Orchard Drive  
Oswego, NY 13126  
June 27, 2006

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

Dear Mr. John P. Boska:

I have been reading NUREG 1433 tonight. (Both Vol. 1 and Vol. 2 are Rev. 3.) (I believe it to be the appropriate Standard Technical Specification for the Entergy/FitzPatrick type of BWR.) It appears to me that it implicitly accepts the 1995 version of IEEE Standard 450 since it specifies it as a reference. (See page 572 of 671 of Vol. 2, for one example.) Therefore, I ask if your Request for Additional Information (ML060810234), question "4 a." should not be withdrawn?

However, the main reason I am writing is to point out what I believe to be a major obstacle in logic. Assume one cell of a station battery has an open circuit voltage of less than 2.07 volts. (I know it says float voltage in STS LCO 3.8.6, but I think that is also incorrect.) There are three required actions, A.1, A.2, and A.3. The first simply requires that you verify the battery (not cell) terminal voltage is greater than, or equal to the minimum float voltage. (You should have been there anyway.) Next, you have to verify that the battery float current is less than a certain amount, perhaps 2 amps. (You were probably there, too.) So, how are you going to restore the affected cell voltage?

Can I suggest an equalization charge is needed?

For instance, from page 33 of "Electrotechnology Volume 3, Stationary Lead-Acid Batteries, Applications and Performance" by Edward J. Friedman (and others), Ann Arbor Science Publishers, 1980:

"Equalization is a method of obtaining uniform conditions among the various cells in a battery through controlled overcharging. During long-term float charging, some cells may exhibit loss of capacity. This may be detected as a specific gravity or cell voltage deviation."

And, from page 35:

"The duration of the equalization may be several days, depending on the initial condition of the battery."

So, the logic problem that seems to appear is this, can you get the cell voltage restored in 24 hours if you keep the charging current low and you don't have to lift the charging voltage above minimum?

Very truly yours,

Tom Gurdziel

Copy:

M.J. Colomb, Entergy Nuclear Operations, Inc