

The Detroit Edison Company
One Energy Plaza, Detroit, MI 48226-1279



Proprietary Information, withhold From Public Disclosure Under 10 CFR 2.390

Upon the removal of Enclosure 4 and Enclosure 5, the balance of this letter may be considered non-proprietary

10 CFR 52.79

10 CFR 2.390

August 26, 2010
NRC3-10-0037

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

- References: 1) Fermi 3
Docket No. 52-033
2) Letter from Jerry Hale (NRC) to Jack M. Davis (Detroit Edison), "Request for Additional Information Letter No. 38 Related to the SRP Section 16 for the Fermi 3 Combined License Application," Dated July 13, 2010

Subject: Detroit Edison Company Response to NRC Requests for Additional
Information Letter No. 38

In Reference 2, the NRC requested additional information to support the review of certain portions of the Fermi 3 Combined License Application (COLA). The response to the Request for Additional Information (RAI) associated with Reference 2 is provided in Attachment 1. Information contained in this response will be incorporated into a future COLA submission as described in the attachments.

Enclosure 4 and Enclosure 5 contains BAE Batteries USA proprietary information as defined by 10 CFR 2.390. Detroit Edison, Black & Veatch and BAE Batteries USA customarily maintain this information in confidence and withholds it from public disclosure. Enclosure 1 and Enclosure 2 are the non-proprietary versions, which do not contain proprietary information and is suitable for public disclosure.

The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 4 and Enclosure 5 has been handled and classified as proprietary to BAE Batteries USA. Detroit Edison and BAE Batteries USA hereby request that the information in Enclosure 4 and Enclosure 5 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17.

If you have any questions, or need additional information, please contact me at (313) 235-3341.

I state under penalty of perjury that the foregoing is true and correct. Executed on the 26th day of August 2010.

Sincerely,



Peter W. Smith, Director
Nuclear Development – Licensing & Engineering
Detroit Edison Company

Attachments: 1) Response to RAI Letter No. 38, RAI Question No. 16-2

Enclosures:

1. Letter from Chris Searles (BAE) to James Thompson (B&V), "Charging Current-BAE 2V-24OPzS-3000," date August 5, 2010 - [Public Version]
2. Technical Information, BAE Batteries USA "Charging of the cell BAE OPzS 3000 N," date August 11, 2010 - [Public Version]
3. Affidavit
4. Letter from Chris Searles (BAE) to James Thompson (B&V), "Charging Current-BAE 2V-24OPzS-3000," date August 5, 2010 – [Proprietary Version]
5. Technical Information, BAE Batteries USA "Charging of the cell BAE OPzS 3000 N," date August 11, 2010 - [Proprietary Version]

cc: Jerry Hale, NRC Fermi 3 Project Manager
Adrian Muniz, NRC Fermi 3 Project Manager
Bruce Olson, NRC Fermi 3 Environmental Project Manager
Fermi 2 Resident Inspector (w/o attachments)
NRC Region III Regional Administrator (w/o attachments)
NRC Region II Regional Administrator (w/o attachments)
Supervisor, Electric Operators, Michigan Public Service Commission (w/o attachments)
Michigan Department of Environmental Quality, Radiological Protection and Medical
Waste Section (w/o attachments)

**Attachment 1
NRC3-10-0037**

**Response to RAI Letter No. 38
(eRAI Tracking No. 4851)**

RAI Question No. 16-2

NRC RAI 16-2

In Part 4, Rev 2, B 3.8.3, Bases, Surveillance requirements (SR 3.8.3.1), page B 3.8.3-6, it states that "The 30 amp value is based on returning the battery to 95% charge and assume a 5% design margin for the battery."

Also in Part 4, Technical Specifications and Bases, Rev. 2, page 8, Item 21 (STD COL 16.0-1-A 3.8.3-1), Acceptance Criteria for Verification of Fully Charged Battery, it is indicated under "Justification" that "Values are based on BAE battery manufacturer's recommended fully charged float current limits for the BAE 2V-240OPzS-3000 battery string."

These above two statements appear to be inconsistent.

- (1) Please clarify the 95% charged vs. the fully charged battery conditions with respect to float current of 30 amps as stated in both sections mentioned above.*
- (2) Please provide supporting document for the float current value of 30 amps for fully charged battery.*

Response

- (1) Please clarify the 95% charged vs. fully charged battery conditions with respect to float current of 30 amps as stated in both sections mentioned above.

A 95% charged condition exists when the battery float current is 30.0 amps while the battery voltage is being maintained within the specified voltage limits of the BAE 2V-240PzS-3000 battery. Margin is included in the battery sizing to ensure that, with a float current of 30.0 amps or less, the battery is capable of supplying the connected loads during a design basis accident or anticipated operational occurrences for the required time periods.

- (2) Please provide supporting document for the float current value of 30 amps for fully charged battery.

Supporting documentation is provided in Enclosure 1 and Enclosure 2-[Public Versions] and Enclosure 4 and Enclosure 5-[Proprietary Versions]

Proposed COLA Revision

Attached is a proposed revision to Part 4, Technical Specifications and Bases, Rev. 2, page 8, Item 21 (STD COL 16.0-1-A 3.8.3-1), "Acceptance Criteria for Verification of Fully Charged Battery".

Markup of Detroit Edison COLA
(following 1 page)

The following markup represents how Detroit Edison intends to reflect this RAI response in a future submittal of the Fermi 3 COLA. However, the same COLA content may be impacted by revisions to the ESBWR DCD, responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be different than presented here.

unavailability of this detail reflects the preliminary design of the system, which has not progressed sufficiently to define the expected pressure. Inclusion of the expected pressure in the Bases does not serve the underlying purpose of identifying the minimum accumulator pressure, and is not necessary to achieve the underlying purpose of the Technical Specifications.

STD COL 16.0-1-A
3.8.1-1

20. Acceptance Criteria for Battery Charger Testing

GTS:

GTS and Bases for SR 3.8.1.2 includes bracketed specifics on the safety-related battery charger test duration.

Plant-Specific TS:

Complete the bracketed values.

Justification:

Values are bounding based on GUTOR manufacturer's recommendations for battery charger test duration.

STD COL 16.0-1-A
3.8.3-1

21. Acceptance Criteria for Verification of Fully Charged Battery

GTS:

GTS Bases for TS 3.8.3 Actions B, C and G, and GTS and Bases for SR 3.8.3.1 include bracketed method for determining the state-of-charge for the battery.

Plant-Specific TS:

Complete the brackets with float current.

Justification:

~~Values are based on BAE battery manufacturer's recommended fully charged float current limits for the BAE 2V-24OPzS-3000 battery string.~~

A 95% charged condition exists when the battery float current is 30.0 amps while the battery voltage is being maintained within the specified voltage limits of the BAE 2V-24OPzS-3000 battery. Margin is included in the battery sizing to ensure that, with a float current of 30.0 amps or less, the battery is capable of supplying the connected loads during a DBA or AOO for the required time periods. The use of float charge to determine the battery state of charge is consistent with IEEE 450 and manufacturer's recommendations.

2. Battery Cell Parameters

GTS:

GTS Bases for SR 3.8.1.1 and TS 3.8.3 Background; the GTS and Bases for TS 3.8.3 Actions, SR 3.8.3.2, and SR 3.8.3.5; and GTS 5.5.10.a, include bracketed battery cell voltage values and bracketed basis for the values. GTS Bases for SR 3.8.1.1 includes a bracketed location for monitoring the applicable battery temperature for battery voltage compensation. GTS Bases for TS 3.8.3

Enclosure 1
NRC3-10-0037

RAI Question 16-2

“Charging Current-BAE 2V-24OPzS-3000”– [Public Version]
(following 1 page(s))



BAE Batteries USA
County Highway V V
Somerset WI 54025
Phone: 715-247-2262
Fax: 715-247-5741

Major Account Office:
2902 Glen Hollow Court
McKinney TX 75070
Phone: 972-540-2972
Fax: 972-542-8905

Date:	Thursday, August 05, 2010
To:	James (Bo) Thompson Black & Veatch
cc:	Wieland Rusch, BAE Batterien Dan Hatch, BAE Batteries USA
Subject:	Charging Current- BAE 2V-24OPzS-3000

Non-Proprietary - Public Version

This document will confirm that BAE approves the use of the following statements to support the use of float current as a measure for state of charge for its BAE 2V-24OPzS-3000 VLA batteries as follows:

[

]

BAE concurs with these statements for the 2V-24OPzS-3000 or when multiple strings of 2V-24OPzS-3000 are placed in parallel.

Sincerely,

Chris

Chris Searles

National Director of Business Development

BAE Batteries USA

972-540-2972

Enclosure 2
NRC3-10-0037

RAI Question 16-2

“Charging of the cell BAE OPzS 3000 N” – [Public Version]
(following 1 page(s))



TECHNICAL INFORMATION

Non-Proprietary - Public Version

Charging of the cell BAE OPzS 3000 N

The question to be answered is:

Can we define the state of charge of the battery OPzS 3000 N by measuring the float current?

[

]

Dr. Wieland Rusch
BAE Batterien GmbH

Berlin, 11.8.2010

Submitted on behalf of Wieland Rusch by Chris Searles, BAE Batteries USA

ENERGY FROM BATTERIES

Wrus 10082010



Enclosure 3
NRC3-10-0037

RAI Question 16-2

BAE Affidavit
(following 3 page(s))



BAE ENERGY FROM BATTERIES
Manufacturing high integrity batteries since 1899 – ISO 9001

BAE Batteries USA County Highway V V Somerset WI 54025 Phone: 715-247-2262

AFFIDAVIT

I, Daniel Hatch, state as follows:

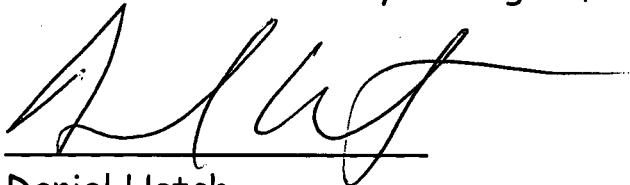
- 1) I am the Chief Executive Officer of BAE Batteries USA. I have reviewed the information being submitted and sought to be withheld. I am authorized to apply for withholding this information.
- 2) The information we are seeking to remain withheld are our responses to FERMI 3 RAI Letter #38 ML 1019402500. The documents in question are entitled "Charging Current- BAE 2V-24OPzS-3000" and "Charging of the cell BAE OPzS 3000 N."
- 3) In making this application for withholding information, BAE Batteries USA relies on exemption from disclosure as set forth in the Freedom of Information Act 5 USC, Section 552 (b) (4) and 10CFR 2.390 (a) (4) for "trade secrets."
- 4) An example of categories of information which fit the definition of proprietary information is:

- a. The information requested to be withheld consists of supporting data, including actual test and results data, and the application of this data secures a competitive advantage as described in this affidavit.
 - b. This information, if used by a competitor, would greatly reduce his expenditure of resources or improve his competitive position in the design, manufacture, assurance of quality or licensing of a similar product.
 - c. The information being submitted reveals past GEH submission of development plans and should already be considered proprietary under the conditions of 10 CFR 2.390 (b) (4).
- 5) To address 10CFR 2.390 (b) (4), the information we are seeking to be withheld is being submitted to the NRC in confidence. This information, to the best of my knowledge and belief, has been consistently held in confidence by GEH, DTE and Black & Veatch; no public disclosure has been made of this exact information; and is not available from public sources.
- 6) All disclosures to 3rd parties, including transmittal to GEH, DTE, Black & Veatch and the NRC, have been or must be made subject to regulatory provisions or proprietary agreements made in writing or verbally which call for the maintaining of this information in confidence.

- 7) External release of this information which we are requesting to be withheld requires review and authorization from the chief scientist, Director of Design Engineering, or other equivalent authority, and is subject to appropriate regulatory provisions and/or proprietary agreements.
- 8) Public disclosure of the information contained in this submission is likely to cause substantial harm to BAE Batteries USA's competitive position and reduce or foreclose on the availability of BAE Batteries USA's profit-making opportunities.
- 9) The research, engineering, product development, and review costs associated with this project comprise a substantial investment of time and money by BAE Batterien GmbH and BAE Batteries USA.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information and belief.

Executed this 12th day of August, 2010.

A handwritten signature in black ink, appearing to read 'D. Hatch', written over a horizontal line.

Daniel Hatch
Chief Executive Officer
BAE Batteries USA