

# **C&D TECHNOLOGIES, INC.**

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**P o w e r   S o l u t i o n s**

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March 27, 2014  
VIA FACSIMILE  
Nuclear Regulatory Commission  
Operations Center  
301-816-5151

VIA REGULAR MAIL  
Document Control Desk  
US Nuclear Regulatory Commission  
Washington, DC 20555-0001

VIA OVERNIGHT DELIVERY  
US Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852-2746

**Subject: Interim Report – Inability to Complete 10CFR Part 21 Evaluation Regarding  
Misaligned Separators in LCR-25 Standby Batteries**

The purpose of this letter is to provide the NRC a report in general conformity to the requirements of 10CFR Part 21.21 (a)(2). On February 14, 2012 C&D Technologies, Inc. ("C&D") was informed by Entergy Operations that an LCR-25 battery installed at the Palisades Nuclear Power Plant had shown signs of misaligned separators (also known as shifted separators) of between 1/8 to 1/4". This was identified by the Palisades plant on or about November 4, 2011. On January 16, 2012, three additional cells were identified as experiencing separator misalignment.

C&D requested that Palisades return the affected batteries for evaluation of this anomaly and issued a Return Material Authorization for that purpose. But since voltage readings were acceptable for all units involved, Palisades determined that an operability issue did not exist and opted to keep the batteries in service until their refuel outage scheduled for Fall, 2013. C&D inadvertently closed the internal corrective action without providing an Interim Report as required by 10CFR, Part 21.

C&D has not performed a root cause technical evaluation to determine if there is any defect in the component or manufacturing process, or whether the reported condition may have been due to user abuse of product, improper maintenance or other negligence or error.

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MLR

Thus, C&D is submitting this interim report to the NRC and notifying C&D's customers that use C&D LCR-25 batteries of this Interim report, and is initiating an action plan to evaluate the reported potential defect and determine whether it could pose a substantial safety hazard for any U.S. licensee using such batteries.

Required information as per 10CFR Part 21.21(d)(4) follows:

***(i) Name and Address of the individual or individuals informing the Commission***

Christian Rheault (or Designee)  
President and Chief Executive Officer  
C&D Technologies, Inc.  
1400 Union Meeting Road  
Blue Bell, PA 19422-0858

***(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.***

LCR-25 Batteries, manufactured in 2010, battery manufacturing date is on the label.  
Note: C&D has not completed its evaluation of the reported potential defect and whether it could pose a substantial safety hazard at any U.S. licensee using such batteries.

***(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.***

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***(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.***

The batteries with misaligned separators have not been fully evaluated and may or may not indicate a potential defect which could create a substantial safety hazard.

***(v) The date on which the information of such defect or failure to comply was obtained.***

February 14, 2012

***(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured or being manufactured for one or more facilities or activities subject to the regulations in this Part.***

LCR-25 batteries used at Nuclear Plants in 1E applications made in 2010

Utility	Plant Name	Battery Model	Qty. of Batteries
Entergy	Palisades	LCR-25 NUC	65
Progress Energy (now Duke Energy)	Crystal River	LCR-25 NUC	4

***(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.***

Co-Current Actions underway to complete the evaluation:

- a) Upon receipt of the batteries from the Entergy Palisades Plant, C&D will evaluate the causes of the condition. Maximum time - 30 days from receipt of the batteries.
- b) In conjunction with the licensees identified in section (vi), C&D will recommend maintenance assessment of all LCR-25 batteries at these locations to determine their status, and specifically the presence of any evidence of potential defects via visual examination. For any cells exhibiting the presence of potential defect, C&D shall further recommend that they be returned for analysis. Estimated completion date of analysis is thirty (30) days from the receipt of the returned batteries.

***(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.***

U.S. Licensees using batteries possibly containing the potential defect are being notified of the filing of this interim report with recommendations that they examine their batteries for any signs of similar problems. See attached notification letter.

***(ix) In the case of an early site permit, the entities to whom an early site permit was transferred.***

Not applicable

If you have any questions or wish to discuss this matter or this report, please contact:

Robert Malley  
VP Quality and Process Engineering  
bmalley@cdtechno.com  
(215) 619-7830

Sincerely,



Christian Rheault  
President and Chief Executive Officer  
C&D Technologies, Inc.

Attachment – C&D Letter to Users of LCR-25 batteries entitled “Inability to Complete 10CFR Part 21 Evaluation Regarding Shifting Separators in LCR-25 Standby Batteries”, dated 3/20/14

Cc: D. Anderson  
J. Miller  
R. Malley  
S. DiMauro  
L. Carson  
J. Anderson