



Charter Power Systems, Inc.
Technology

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27 January 1997

US Nuclear Regulatory Commission
Washington, DC 20555-0001
Attn.: Document Control Desk

Reply to Notice of Violation 99901304/96-01-01

Reply to Notice of Nonconformance 99901304/96-01-02 through /96-01-05

Dear Sirs,

C&D Charter Power Systems has taken the following actions in response to the notices issued if reference to the audit of our Attica, IN and Conshohocken, PA facilities under NRC inspection report 99901304/96-01.

Notice of Violation 99901304/96-01-01

... C&D did not establish and maintain auditable records for the dedication process used to dedicate battery cells destined for Class 1E safety related station battery applications.

C&D has manufactured battery cells for Class 1E safety related station battery applications for a number of years and during that period has gone through numerous audits by NUPIC and by the individual utilities. Throughout that time, we have taken the position that the cells were produced commercial grade and that they were 'dedicated' for nuclear service at the time when the cells had completed capacity discharge testing in accordance with IEEE-450 procedures or customer specific test requirements. At that time, the batteries were shown to function properly, incoming inspection demonstrated reasonable assurance of the quality of the component parts and in-process inspection demonstrated reasonable assurance of the quality of the process. Records are maintained for incoming, in-process, testing and final inspection with traceability back to the work order number and cell number. This position has been tested against NUPIC and utility audits and found to be consistently acceptable.

Discussions with the NRC audit team during the course of the inspection established that C&D needs to either (1) establish a dedication procedure for battery cells which will list the critical characteristics of the cell and how each characteristic is sampled for and tested; or (2) manufacture the cells under a 10CFR50 Appendix B program as a basic component. During the course of the audit there was some confusion on the part of the audit team as to why C&D did not take credit for an Appendix B program as all the component parts of the program were in place.

C&D will maintain a program consistent with 10CFR50 Appendix B. Class 1E safety related station batteries will be manufactured as a basic component. C&D will maintain a cross reference list between C&D Quality Manual sections and/or Procedures and Appendix B requirements. The cross reference will be maintained in the cross reference section of the

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Quality Manual. The Introduction will be revised to show that the program meets the requirements of 10CFR50 Appendix B and that it is imposed on orders which call for 10CFR50 Appendix B as a purchase order requirement.

Revisions to the Quality Manual will be completed by 3/31/97.

Notice of Nonconformance 99901304/96-01-02

... assembly line and manufacturing personnel in several areas at the Attica, Indiana facility were not aware of any procedures or instructions to control the work activities which they were performing. The Attica facility supervisors and managers did not ensure that procedures or instructions were being used in areas such as plate pasting, pasted plate curing, cell assembly, post sealing and cell cover gluing.

As observed by the audit team and documented within the audit report, there are procedures available to document the manufacturing process within the PPS and FP specifications. These are maintained within the supervisor's offices and are available to the assembly line and manufacturing personnel. The audit team also noted during the course of the audit, that as part of our continuous quality improvement program, C&D has found that the documentation within the Product and Process Specifications (PPS) and Factory Procedures (FP) systems could be improved upon and that the majority of the training that was being accomplished was OJT. A program is underway to convert to process specification systems designated as Process Instructions (PI) and Operating Instructions (OI) which will give instructions more usable on the production floor and develop a basis for formalized training of the personnel.

The PI's and OI's for Large Flooded Cells (which includes Nuclear rated cells) will be completed and training will be complete by 12/31/97.

Notice of Nonconformance 99901304/96-01-03

... contrary to the above, C&D performed it's site specific seismic analyses without the benefit of written procedures.

Mr. Graham Walker, the Manager of Applications Engineering, has been the only person to complete the seismic reports and the requirement for a procedure to cover this activity had been overlooked.

Mr. Walker will complete a procedure on how to perform a seismic analysis by 3/31/97

Notice of Nonconformance 99901304/96-01-04

... contrary to the above, although C&D stated that it was performing battery cell dedication for customers who imposed 10CFR50 Appendix B, C&D did not establish a dedication procedure to identify and verify the adequacy of each of the critical characteristics important to ensure the battery cells would perform satisfactorily in service.

Reference the answer to NO 99901304/96-01-01 for the background to this nonconformance.

As C&D has chosen to maintain an Appendix B program and manufacture cells as basic components, it will no longer be necessary to establish or maintain a dedication procedure for the cells.

Notice of Nonconformance 99901304/96-01-04

... Section 5.3.4 of C&D Product and Process Specification (PPS)-X4 Revision 3, states: Immediately following cover installation, the cell/unit shall be held in place for a minimum of 30 minutes with a pressure equal to 80-100 psig. The cover shall be held to the jar in a way to eliminate movement and to distribute the pressure uniformly over the entire sealing area.

... Contrary to the above, although C&D had translated a design requirement into Section 5.3.4 of Procedure PPS-X4, it did not ensure that the activity was accomplished in accordance with the procedural requirement ...

The design requirements were to place sufficient pressure on the cover to straighten any bow in the molded cover and prevent movement between the cover and container while the adhesive cured. The process was changed from a static weight to a web clamp and frame which accomplished the same purpose but sped up production flow through. Because the procedure system was being rewritten from the PPS/FP procedures to the PI/OI procedures. The PPS was not updated, while the PI was being developed which covers the revised process.

An Engineering analysis of the new procedure will be completed by 2/28/97. The PI for Large Flooded Assembly will be completed and issued by 2/28/97. Training to the new procedure will be complete by 3/31/97.

Sincerely,



Terry Kinden
Director Quality Assurance

Cc: Chief, Special Inspection Branch, Division of Inspection and Support Programs, Office of Nuclear Reactor Regulation (NRC)
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